



0 2007 1206356 5

California State Library

California State Library

Presented by

Purchore

Date received

Oct 1871★

No.

37407

fc630.5

P1
9

EXTRACT

*From an Act prescribing Rules for the Government of the State Library, passed
March 8th, 1861.*

SECTION 11. The Librarian shall cause to be kept a register of all books issued and returned; and all books taken by the members of the Legislature, or its officers, shall be returned at the close of the session. If any person injure or fail to return any book taken from the Library, he shall forfeit and pay to the Librarian, for the benefit of the Library, three times the value thereof; and before the Controller shall issue his warrant in favor of any member or officer of the Legislature, or of this State, for his per diem, allowance, or salary, he shall be satisfied that such member or officer has returned all books taken out of the Library by him, and has settled all accounts for injuring such books or otherwise.

Sec. 15. Books may be taken from the Library by the members of the Legislature and its officers during the session of the same, and at any time by the Governor and the officers of the Executive Department of this State who are required to keep their offices at the seat of government, the Justices of the Supreme Court, the Attorney-General and the Trustees of the Library.



Digitized by the Internet Archive
in 2013

<http://archive.org/details/pacificrupres09unse>

PACIFIC RURAL PRESS

Volume IX.]

SAN FRANCISCO, SATURDAY, JANUARY 2, 1875.

[Number 1.

Where is Your Garden?

This question has special reference to your vegetable garden. Farming proper has been recognized in all ages as the most ennobling of all callings, and the refining influence of the flower garden has never failed to be appreciated; but the domestic and even social benefits derived from the more prosaic vegetable garden—benefits aside from and altogether above those of a pecuniary nature—have not, we are sorry to say, received the consideration they deserve. Farmers, as we all know, detect a good deal of "bosh" in what is said in praise of their calling, and are properly disgusted with the same; while the most zealous toilers in the flower garden are diffident about declaring their preferences for fear of subjecting themselves to the ridicule bestowed upon the sickly sentimentality which is forever trying to excite our admiration on the score of a passionate lover for flowers. But bosh and sentimentalism have not yet invaded the vegetable garden, though these parasites might find here a sufficiency of nutriment.

Earnest efforts have been made on the part of the well wishers of American rural life, to attach people to their homes. These efforts are made, principally, in behalf of the youth of the country; but the short sightedness of this view is palpable to any one who is at all acquainted with the American character. The proverbial discontent which is so deplorable in the youth of the rural districts, will never show itself or never exist, where contentment and satisfaction are unmistakably manifested by the heads of families, and by the older members of the community generally. We shall, on some future occasion, take in hand this subject of rural discontent, endeavoring to trace out its real sources, and attaching the blame where it belongs; but our present purpose is to offer a bit of advice which we are confident will, if thoroughly applied, exert a strong curative influence in this really serious case.

This simple remedy is vegetable gardening. If the reader has ever owned a good vegetable garden, one that was mainly dependent upon his own labor and attention, we are willing to leave the decision of the question with him, whether it is not one of the hardest links to sever in "making a move." We know full well how the farmer feels on leaving, forever, the orchard he planted, the fields that he subdued, and, in fact, the farm which he may almost justly claim to have made; and we can sympathize with the men or women who are compelled to leave their nursing flowers and shrubs, but in neither case is the affection stronger or purer, or the regrets at parting more keen than in the case of a complete vegetable garden. This, in fact, is even more a family affair than either of the other ties. The woman of the household takes to the garden, instinctively, and finds in it healthful exercise, pleasant recreation, and important aid in domestic economy. She is followed thither by the youthful members of the family. The youth who is just merging into manhood will find no reader or pleasanter means of showing his willingness to do something for his mother than by assisting in her little garden enterprises, and the little one who persists in clinging to her skirt in all places can do so here and enjoy at the same time, the needed sunshine and dirt.

On the male head of the family the influence of the garden is quite as beneficial; the social and domestic effects being particularly healthful. In the case of the regular farmer this influence is perhaps not needed except as forming an additional incentive to contentment and stability of purpose; but there are so many men, even in farming neighborhoods—mechanics, merchants and professional men—who would, in various ways derive benefit from garden culture. But it is in the villages and cities that the best results of gardening are seen; forming an attraction which is more strongly

Pickling and Preserving.

A correspondent writes to us from a distant State concerning the prospects for the pickling and preserving business in California, with inquiries as to the facilities for obtaining the raw material; and asks if "vines will grow well here." As far as the supply of material is concerned, we can assure him that there is no portion of the world that surpasses California in variety or abundance, both of vegetables and

Bee-Hunting.

The large illustration which we give on the first page of this, our holiday sheet, is descriptive of one of the notable incidents of country life, namely, bee-hunting. Although bee-hunters in their reports of these adventures generally report satisfactory returns in honey, they almost invariably dwell most on the pleasurable excitement attending the hunt.

The programme of the bee hunt varies somewhat in different localities.

A very common mode, and one which we will suppose is being used by the parties in the accompanying picture is as follows: The hunters resort in the daytime to localities where these wild swarms are supposed to exist, and endeavor to entice the bees away from their tree-hives. A common method to accomplish this purpose is to create a strong but agreeable odor, by filling the cells of old honey combs with aniseed and burning it between heated iron or stones. This attracts the bees, and in the vicinity of these enticing fumes, honey or some other bee food is placed. The bees feed on this.

"Which village, they with merry march bring home
To the tent regal of their Emperor."

The hunters follow them in their flight and thus ascertain their retreats. At night they repair to the detected hiding place, provided with axes, torches and vessels for transporting their sweet treasures to their homes.

We see them in the picture after the tree has been "felled," removing the honey from the mammoth hive, or rude city of hives. The full moon is affording all the assistance she can under—or rather over—the circumstances, but the additional light of their pine torches is needed. Two or three hundred pounds of honey is not an unusual yield from one of the bee trees. It happens sometimes that there is a large amount of old comb in the tree; the quality of the honey being injured thereby, and sometimes too the honey is badly broken up by the broaking or jarring of the falling tree; but in many cases the stock is equal in every respect to the best hive honey, and is removed in good marketable condition.

THE JAPANESE PERSIMMON.—This tree is beginning to attract the attention of our fruit-growers. Those who have seen the fruit in Japan pronounce it very fine, unlike anything grown in this country. General Capron, former Commissioner of Agriculture, and since for several years residing in Japan, states: "That the persimmon is the best of all the native fruits of that country, and well worthy of introduction in California." The tree is described as finely shaped, having a rich, dark green foliage, and is an ornament anywhere. It produces fruit in Japan in from six to eight years from the seed. It would not be surprising if it came into bearing earlier with us. The experiments of Messrs. Shinn & Co., nurserymen, at Niles, Alameda county, show conclusively that our soil and climate is well-suited to this foreigner. They have several thousand successfully grown, large enough for orchard planting. We gladly notice any effort on the part of our culturists to introduce valuable fruit and other trees. The successful introduction of one choice variety will repay for many failures.



BEE HUNTING.

coun'er to that of the dram shop or bar room, than any with which we are acquainted.

We trust our readers will forgive us for thus dwelling on the domestic and social aspect of gardening. In a succeeding number we shall speak of it in connection with some local characteristics that demand special attention, and will endeavor to exhibit the pecuniary profits to be derived from gardening, while the strictly practical points will receive due attention.

THE DEMAND FOR JERSEYS.—Among the representative agriculturists whom we have had the satisfaction of interviewing lately is Mr. A. Maillard, of San Rafael, Marin county. Mr. M. is known as the leading importer and breeder of Jersey and Alderney cattle in California. He informs us that the demand for this stock is steadily increasing, and that he is filling orders from parties in other states and territories. The fine stock of Mr. Maillard has been duly noticed through the columns of our paper in connection with our fairs and we are pleased to be assured of its popularity. He is an ardent admirer of these breeds of cattle, and is still strong in the faith that they are destined to form the basis of California's butter dairy; and one of the strongest efforts made by him to bring about this result is offering his choice stock at reasonable prices.

A COMPANY has been organized for constructing a new hall at Monterey.

fruits. If our correspondent desires to locate in San Francisco, he would have all the advantages to be derived from the great commercial center of the Pacific coast, and the great receiving point of the horticultural products of California; and if more pickling and preserving establishments were in operation here the producers would be benefitted thereby, as much fruit that is now unsaleable for table and other purposes, could be used to advantage in the above manner, and could be procured at extremely low rates. But should he prefer to establish himself in some great producing center, he could receive his supplies according to his needs, and at still lower rates than in San Francisco. If he would locate at Los Angeles, for instance—an immense fruit and vegetable garden—his supply would embrace an almost endless variety—including olives, limes and citrons—with scarcely any interruption throughout the year. He would undoubtedly receive the encouragement of the producers and the community at large; and if he is a Granger he could probably secure the co-operation of the Order in just such an enterprise as he wishes to engage in.

In answer to his inquiry concerning the productiveness of vines, cucumbers and melons, etc., we will simply state that they bear very abundantly in California.

THE San Jose woolen mill company is making weekly shipments of goods to St. Louis, Chicago and Boston. The shipments of late have consisted of doestines, cassimeres and blankets.

CORRESPONDENCE.

[The RURAL PRESS, in opening the columns of this department to its correspondents, does not desire to lay before its readers anything which is not in keeping with its character and position as an agricultural and family paper. Facts are always thankfully received; and suggestions and matters of opinion on subjects connected with agriculture are also acceptable; though correspondents are to be understood as speaking for themselves and not for the Press.]

Our Up-Lands.

EDITORS PRESS:—Our uplands demand some attention. The land-hunters, buyers of homes, seem to pay no attention to any but irrigable lands. In fact, most of our own people seem to think that our uplands are only fit for sheep. Some, however, are of a different opinion, and have tested the capacity of these lands for many different productions, with good results.

There are some two or three thousand acres of uplands adjacent to Los Nietos, which with proper cultivation, will, without doubt, produce remunerative crops almost every season. Take into consideration the superior healthfulness of upland situations, and there certainly can be no good reason why these lands should not be in demand.

As an example of the beautiful homes that might dot all these plains over, the home of Dr. Fulton, also that of Mr. Strong may be cited. It may be safely asserted without fear of contradiction, that nowhere on the lowlands here, can a more beautiful front yard be found than that of Dr. Fulton. On the Strong place there will, in a few years, be an abundance of fruits, especially oranges.

It may be urged by the advocates of the lowlands that these two places have enjoyed the benefits of irrigation. Let it be known, that the trees on the Strong place have not been irrigated during the last two years; and that no more irrigation has been done until this season on Dr. Fulton's place than can be done anywhere with a good well and windmill. Bro. Sorrenson's place this year yielded sixty bushels of barley to the acre, and promises full as good a yield of corn, without irrigation. The uplands of Mr. Sanford have never been irrigated, neither has that of Señor Ramirez, both of which places have given abundant yields of small grain.

There is no reasonable doubt that when these lands once come into notice, there will suddenly arise a great demand for them; and they will exhibit their susceptibilities in a panorama of the most beautiful homes in the vicinity of Old Los Nietos. — "P."

THE DAIRY.

Premium Butter.

If it be a fact, as reported, that the butter which received the premium at the Northern Ohio Fair, was made in Delaware county, New York, what may be the inference? That the committee acted impartially is not questioned. But was our best butter there? Was our butter interest fairly represented? I must assume it was not, for, aside from prejudice of home, I contend that we have just as good cows, just as nutritious grasses, just as clear water, just as equitable a climate, just as clean pans and bands, and just as earnest butter-makers, here in Ohio, as in any other locality, no matter how especially favored.

There is only one point on which a doubt can be raised, and this is as to the character of the milk-room and the care taken in keeping it at the right temperature. It has been demonstrated that if milk is kept as nearly as possible at a given temperature, more cream, and better, will be obtained than at a higher or lower temperature. It has also been demonstrated that a clean dry room is preferable to a foul and wet one. The purer the atmosphere, the purer the butter. Milk is a powerful absorbent, and no one who has not carefully examined would imagine the impurity taken up by milk and cream.

Now if our friends in New York have any new processes by which they are enabled to make better butter than we do, we desire to know it. If it be a fact, as claimed, that refrigerators or cooling rooms are a necessity, and that they are in advance of us on this point, I say, let us remedy this defect, and the sooner the better. The experience of those who make "gilt-edged" butter is, that the temperature of the milk-room should be as nearly at sixty-two degrees as possible, and that the room must be perfectly dry and free from every impurity. Spring-houses, with pans partly immersed in water, have been found to be objectionable on account of the dampness, and yet so much preferable to the best cellars. So, to remedy these objections, ice-houses or refrigerators are used, which are now so constructed that all these objections are removed, giving always a pure, dry atmosphere. The houses are filled with ice in winter, which lasts until the next winter.

"Gilt-edged" butter requires no change of cows; no increase of cream, no increase of labor—but does require care of cows, in food, drink and shelter; care in milking; setting the milk; in churning and working and seasoning; and, just as important as all other points combined, the proper condition and temperature of

the milk-room, so that the chemical changes which take place in the milk may be natural, and there be no absorption of extraneous matter.

"Gilt-edged" butter is worth from fifty to seventy cents per pound, and the market never can be glutted; while "good" butter, costing just as much to make, commands from nothing up to perhaps thirty or even forty cents. Now I assume to say, that just as good "gilt-edged" butter can be made here in Ohio as elsewhere, if we observe the same conditions. Will it pay? I contend it will, both in money and reputation; and with the present experience of another State carrying off our premium, shall hope and trust the lesson may not be thrown away. — P. B. in Ohio Farmer

Abortion in Cows.

As this serious malady has hitherto baffled the skill of the best experts in the country, who have failed to discover cause or suggest remedy, facts bearing on it will be of interest to farmers. By carefully collecting these and collating them, something practical may in time be deduced, even from their apparent inconsistencies.

One of our prominent dairymen in this section, who keeps on a average through the year about 80 cows, gives us some facts in his several years experience, at variance with what we have always heard and understood. To keep up a regular supply of butter, he very frequently during the season buys ten or twelve cows at a time, selling the dry ones or those nearly dry, off to the butcher. Contrary to the received opinion, that a cow that aborts once is liable to do it continuously for several years, and is on this account often sold, he finds that while nine out of every ten cows newly purchased, abort on his place with their first calves after arrival, hardly one in ten of them aborts with their second or subsequent calves. Abortions among his cows are confined to those freshly purchased, and he always exports it with them the first season, and does not have it among the rest. The epidemic character of the disease seems thus refuted.

Such a result would most naturally be expected in the old stock and not in new, the reverse being the fact. As to how this state of things can be explained, we have but one supposition. The cows our friend usually purchases, are the best cows which can be selected out of the droves. His system of feeding is high pressure, considering it true economy to give them all they can be induced to eat, and of the kind most calculated to produce the most milk and butter. They may be considered as at once put under training for the pail, as soon as they come on to the place. All that is in them is sure to be developed. We can suppose this management to be a speedy and radical change from their previous condition. Hence abortion, which is usually considered as liable to result from such cases. After the animal system, at the end of twelve months becomes accustomed to their new management, abortion ceases.

Good Advice to Settlers.

At a late celebration of Queen Victoria's birthday in Virginia, Mr. St. Andrews is reported to have given his countrymen the following sensible advice, which is equally applicable to the Canadians intending to migrate. He said:

1. Come in colonies, or go to colonies.
2. Bring money in your purses.
3. Leave your prejudices behind.
4. Don't expect too much.
5. For land or business pay cash.
6. Keep two-thirds, at least of your money for a working capital.
7. Avoid land sharks. You can easily find out the reliable land agents.
8. In buying land don't get too much of a good thing.
9. Adhere to the old fashioned principle of British honor. Don't attempt "smartness;" better class Americans don't admire it; but they can beat you at the game if you challenge them to it.
10. Remember that success is more in the man than in the country.

GERMAN EMIGRATION.—It appears from statistics recently published, that the emigration from Hamburg and Bremen during the last five years has amounted to 700,000 persons yearly. In the more thinly-peopled districts of Prussia serious disadvantages have arisen from this exodus of the people, and the attention of the Government has been called to it. Amongst the causes to which it is attributed are the great increase in the number of emigration agents in all parts of the empire; the disinclination of young men to serve in the army; the improvements which have been made in the course of the last ten years in the means of communication between the interior and the seaports; the comparative comfort and cheapness of the voyage to transatlantic countries; and the knowledge of the fact that greater protection, advice, and assistance now than formerly are afforded by the emigration offices to the emigrants at the ports of embarkation. The English Consul at Hamburg, writing on the subject, says that there has been a general improvement in the condition of the operative and agricultural classes in Germany; but the emigration goes on increasing, and the proportion of emigrants who are forwarded by way of England is also an augmented ratio from year to year. — Canada Farmer.

THE HORSE.

Clyde and French Draft Horses

I noticed in the November number of your paper, a communication signed by C. T. Douglass, upon Clyde and French draft horses. I can fully endorse his comparison, having been engaged in the horse business for the past 25 years, and having during that time been thrown in almost constant contact with importers and dealers in draft horses. I have also been engaged in selling half and three-quarter blood English and Clydesdale horses, alongside of French half and three-quarter blood horses, and I have never known it to fail that the English and Clydesdale were considered far superior in every particular to the French horses.

The points of difference between the Clydesdale and the French are:

1. The former has more bone than the latter.
2. They are better backed.
3. They are not so short-ribbed.
4. They are better footed.
5. They have more weight for their height.
6. Nine out of every ten can trot away from any French horse I ever saw.

The speed of the French horses has been the hobby of their owners; and comparing them with the Clydesdale, I claim that the speed is not there. I have never been a newspaper correspondent, and do not write now for any pecuniary interest whatever, but I only write to correct the very erroneous statements made by persons interested in the French horses. I have given my reasons for preferring the Clydesdale to the French horse, and those reasons can, and will be substantiated by any honest horse-dealer who knows anything of the merits of the different breeds.

I will give a partial measurement of a Clydesdale three-year old colt; the same, or anything like the same measurement, I claim, cannot be given of any French horse of any age:

The front leg below the knee, 11 1/2 inches.
The front leg above the knee (thickest part between knee and body), 29 3/4 inches.

Hind leg below the knee (smallest place), 13 1/2 inches; the hind leg above the knee, midway between knee and stifle, 23 1/2 inches.

Height, 17 hands, standard measure; weight, 2,240 pounds.

Now, Mr. Frenchman, if you have any stock on hand that can come up to the measurement or weight of the Clydesdale colt above named, I would be glad to hear from you in the next issue of the Journal.

At present, I fail to see the propriety of upholding the French horses as being superior to the Clydesdale; for any sane man, with a knowledge of both breeds of horses, knows, that to even think of it is absurd, let alone to write about it.

I wish to state that I am not governed by prejudices whatever. I am an American citizen, and therefore it is only from practical observation of the different breeds of horses that I form my opinion as to the superiority of the Clydesdale horse over the French horse, and not from any love to a country from which a horse may be imported.

Besides buying and selling for quite a number of years, I have also been breeding horses for 25 years, and I here state, emphatically, that I know whereof I speak.

Not desiring, nor yet fearing, a controversy on the subject before us, but merely wishing to bring before your readers the right side of the question. — Cor. National Live Stock Journal.

QUIDDING HORSE.—The habit of "quidding," or dropping the food after chewing it, is due to several reasons. The horse may suffer from a sore throat or difficulty of swallowing from other causes; some of the teeth may be carious or diseased, or they may be worn sharp upon their edges and cut the mouth. It will be necessary to examine the mouth and throat as far as possible, both by sight and by pressure. If there is a hollow or diseased tooth it should be extracted; if any are sharp upon their edges they should be filed down with a flat file; if the throat is sore or any part of the mouth, a wash of chlorate of potash should be used with a sponge fastened to a piece of whalebone or rattan; or embrocations of mustard should be applied to the throat outwardly. It might be well to cut the feed fine and scald it, feeding it when only slightly warm. — N. Y. Tribune.

THE HORSE FOR FARM WORK.—The head of a horse for farm work should be comely, but not so small as that of the running horse, as it enables the animal to throw more weight into the collar. He should be broad and flat in the forehead, have neat well set on ears, prominent placid eyes, thin eye-lids, large nostrils, neat neck, and deep toward the chest, not very high in the withers, with upright shoulders, forearm broad, flat bone below the knee, rather short pasterns, good round feet—and not too flat or upright, plenty of hoof, clean leg, straight back, with plenty of loin, and ribs well arched. For a breeder no animal should be used that is not free from curb, bog or bone spavin, splint or side bones. Horses with well developed muscles and a good constitution are easy to keep. — E. V.

BLOOD DRINKING.—Inquiries made at the slaughter-houses in New York have brought out the fact that some two hundred persons in that city are in the habit of drinking blood warm from the ox for strengthening purposes and for cure of diseases.

BEES.

Bees in Market.

[In response to an inquiry in regard to obtaining swarms of bees, which appeared in the Press recently, a correspondent communicates the following to the party requesting the information.—EDITORS PRESS.]

G. N. HAGADORN, ESQ., CONTRA COSTA, Dear Sir:—I noticed in the RURAL PRESS, of the 19th instant, that you desired to purchase bees, and enquiring the cost, etc. I have about ten or twelve stands or hives that I will sell. My stock is of the Italian variety, and probably as strong as any in the State. There has never been any disease among my bees, which is so common in this State, and I have not lost a hive by sickness or "foul brood." My hives are now full of bees and honey. My time being occupied constantly I cannot attend to them properly, consequently I will sell.

The price will depend on how many hives a person wants. The time in which they will pay for them—depends on the amount of feed there is in the vicinity where the bees are kept, the handling, etc., and the price of honey. But in a good locality they will pay a hundred per cent. on the money invested the first season, not taking into account the increase, which will always be large in a good season, if left to swarm naturally, especially if the hives are strong and healthy which you start from. Any information on the subject will be cheerfully given by yours respectfully,

W. G. PHELPS.

Stockton, Cal., December 20, 1874.

Communication Between Bees.

I was staying in the house of a gentleman who is fond of trying experiments, and who was a bee-keeper. Having read in some book on bees that the best and most humane way of taking the honey without destroying the bees was to immerse the hive for a few minutes in a tub of cold water, when the bees being half drowned, could not sting, while the honey was uninjured, since the water could not penetrate the closely waxed cells, he resolved on trying the plan. I saw the experiment tried. The bees, according to the recipe, were fished out of the water after the hive had been immersed a few minutes, and with those remaining in the hive laid on a sieve in the sun to dry. But, by bad management, the experiment had been tried too late in the day, and on the sun going down they were removed into the kitchen, to the great indignation of the cook, on whom they revenged their sufferings as soon as the warm rays of the fire, before which they were placed, revived them. As she insisted on their being taken away, they were put back into their old hive, which had been dried, together with a portion of their honey, and placed on a shelf of the apiary, on which were five or six other strong hives full of bees, and left for the night. Early the next morning my friend went to look at the hive on which he experimented the night before, but, to his amazement, not only the bees from that hive were gone, but the other hives were also deserted—not a bee remained in any of them. The half drowned bees must, therefore, in some way or other, have made the other bees understand the fate that awaited them. — London Spectator.

THE CODLING MOTH.—As to the moth objection, a little explanation will suffice to silence that. We often cultivate and raise ten thousand of these things unwittingly, by throwing old comb about the apiaries in old empty hives, boxes, shelves or tables, as the case may be, not knowing that we are sowing the seeds of destruction in our own apiaries. A few days ago I saw an old box hive sitting in a small apiary filled with old comb, and remarked to the proprietor that "he was raising a good crop of worms." He replied, "No danger." I then inquired how long it had been there? He replied, "About twenty days," whereupon I tore up the comb and exhibited to him about half a bushel of worms, webs, cocoons, etc. Now the truth is, if old combs are kept away, buried up, or melted into wax, we will have nothing to fear from the moth particularly if colonies are kept strong. — Cor. Beekeepers' Magazine.

HONEY should be allowed to stand for two days after being extracted to allow all the particles of wax to rise to the surface. This should be skimmed off carefully, and the honey drawn out from the bottom. Wax induces crystallization, and buyers will not pay as much for crystallized honey.

FASTENING IRON IN STONE.—A writer strongly recommends the use of zinc instead of lead for fastening iron railings into stone. It is well known that iron cemented with lead is consumed by rust very rapidly and destroyed. The zinc, however, establishes a galvanic circuit with the iron, and being positive to the iron, constrains all the chemical action and becomes oxidized, while no rust forms upon the iron. With lead the opposite takes place. It makes also with iron a galvanic combination, but the iron being positive compared with the lead, it undergoes the chemical action, is oxidized, and protects the lead at its own expense.

Decrease of Farm Laborers in England.

According to recently published statistics the agricultural workers in England are steadily diminishing. The harvest is great, but the laborers are becoming fewer and fewer. In the census persons "working the land" are grouped under the seven heads given in the table below, which shows the number in each class, according to the last three of these decennial enumerations:

	1851.	1861.	1871.
Farmer, grazier.....	249,431	249,735	249,907
Farm bailiff.....	10,561	15,698	16,476
Farmer's son, grandson, brother, nephew.....	111,704	92,323	76,406
Farmer's daughter, granddaughter, sister, niece.....	105,147	83,830	92,187
Agricultural laborer (out-door).....	952,997	958,262	708,987
Farm servant (in-door).....	288,272	204,962	158,756
Shepherd (out-door).....	12,517	25,559	23,323

The "farmer-grazier" section has remained remarkably steady at each census, showing very slight increase. Farm bailiffs increased about fifty per cent. in the first decade, and a small addition was made to their number in the second decade. The farmers' sons, daughters, etc., are placed in the class because they almost invariably work (we are told) on the farm, or engage in some farm operation. The sons, etc., have exhibited a steady decline, while the daughters, etc., diminished largely between 1851 and 1861, but during the last decade have increased upwards by 8,000. The most noticeable change is that apparent in the two next sections. The out-door agricultural laborers have decreased since 1861 by 160,000; the decrease of the in-door farm servants was great, both in 1861 and 1871. There seems to be nearly 130,000 less in this section than 20 years ago. The shepherds, who doubled their numbers between 1851 and 1861, fell off between 1861 and 1871 by more than 2,200. Counting all below the farm bailiffs as supplying ordinary farm labor of one kind or the other, it will be found that the working force in 1861 was 1,365,000, and that in 1871 it amounted to 1,149,000 hands; hence the decrease in the latter year was nearly 16 per cent.—*Boston Jour. Chem.*

Short Weight in Lard.

In our issue of December 9th we referred to complaints that had been made to us as to short weight in caddy lard. We have since investigated the matter, and found that the complaint was not without foundation. In one instance a caddy was shown us which was sold as containing 5 pounds of good lard, but the caddy, wood and all barely weighed five pounds. Had the caddy been an honest one this would have been but a trifling loss to the purchaser, but examination showed that fully an inch in the bottom and half an inch in the top (to all outward appearance lard) was nothing but good solid wood. Going into a well known grocery store we were shown a caddy which we were assured contained 10 pounds, but on being tested package and all only weighed 9 3/4 pounds, while there was, as in the former instance, wood where there ought to have been lard. In this case of course the loss falls entirely on the consumer, but the practice of putting up lard in this manner is, to our understanding, none the less reprehensible. We would advise packers for their own sake to remedy the evil complained of. Short weight and short measure are among the crying evils of the day—a reform is badly wanted, and it could not be better inaugurated than by those interested in the matter complained of.—*Journal of Commerce.*

DOES COOKING INJURE THE HEALTH OF STOCK? The world will never quite get rid of its old fogies—those who want to be natural, but have never studied nature. When fodder shall be cooked so as to be softer and more succulent than grass, which nature has furnished for the animal, then it will do to inquire whether nature is not violated in cooking food for cattle. Nature furnishes grass, not dried fodder. The dried fodder is man's work of preserving food while grass does not grow, and if he cooks this soft and succulent in imitation of grass, does he run a tilt at nature or is he imitating her?

A farmer always looks forward to the new growth of grass in spring as affording an opportunity for his cattle to improve in condition and health, and when he cooks thoroughly his winter food, his cattle are simply kept upon grass the year round. We have kept the same cows upon cooked food for fifteen winters, and found them vigorous at nineteen and twenty years old.—*Live Stock Journal.*

TO BREAK UP A HEN.—Take the hen and shut her up; after a few days she will forget her desire to sit, and commence laying again. Sometimes dipping fowls into water will prevent their returning to the nest, but where they are persistent the cooping plan is the quickest, and makes the least trouble. The coop should be large and airy, and the fowls supplied with plenty of appropriate food.—*Ohio Farmer.*

STOVE LUSTER when mixed with turpentine and applied in the usual manner, is blacker, more glossy, and more durable than when mixed with any other liquid. The turpentine prevents rust, and when put on an old rusty stove, will make it look as well as new.

STEEL RAILS appear to be everywhere excluding those of iron. All of the contracts lately given out by the Belgian Government for the State lines are steel. It is stated that steel rails are about as cheap now as iron rails were two or three years ago.

Agricultural Settlers on Mineral Lands.

The Washington correspondent of the *Bulletin* says that an important question affecting agricultural lands in the mineral regions, has unexpectedly arisen in the General Land Office in the pre-emption case appealed from the Sacramento district, of Samuel Freeman vs. John Jones, involving a small tract in El Dorado county. Without going into details of no general interest, it may be stated that the question is now to be decided whether any mineral lands included in the 29 townships which were withdrawn as presumptively "mineral" by the order of the Interior Department, in December, 1871, have been or are now subject to such settlement in good faith (as agricultural) as will enable the settler to claim priority of pre-emption over all other persons who may endeavor to pre-empt the same tract after it is proved to be non-mineral. The department has several times held that a homestead entry, though incorrect or fraudulent, does actually withdraw the land, and that no bona fide settler can acquire any initiatory rights until the previous entry is canceled. Following this and similar rulings a decision has lately been prepared, applying the same principle to the lands reserved as above stated, by the order of 1871, and holding that this reservation had the effect of a withdrawal of the lands from settlement, and that, therefore, no infeasible rights could be acquired by any settlement upon them prior to the legal establishment of their agricultural status.

In other words, an agricultural settler upon land within this reserved "mineral belt," whether before or since the date of the order of 1871, would be required not only to prove that his lands are more valuable for agricultural than for mining purposes, but would then have to make his pre-emption or homestead filing *de novo*. Thus the advantage of years of homestead occupation—commenced, perhaps, long before the so-called "withdrawal" of the 29 townships—or the cost of bona fide improvements and the labor of years, might be utterly lost to an inattentive or unsuspecting settler by the sharp practice of some watchful speculator ready to come in and enter the tract the moment that the settler had, by formal proof, established its agricultural character. The decision to this effect, though prepared, as above stated, for the signature of the commissioner, has not been signed by him; and although it is manifestly in the legal precedents it will not probably receive his approval unless materially modified in the interests of equity.

Senator Sargent and Representative Page, having had their attention directed to the matter, have hastened to advise Commissioner Burdett of the magnitude of the question involved in this apparently unimportant case, and it is now probable that the decision, when rendered, will announce as the rule of the Department, that in cases where the settler makes application to file upon these withdrawn lands, trial may be had to determine their non-mineral character, and thereupon his application shall be received and accorded priority.

THE WORLD SAYS: "Knowledge of machinery is becoming one of the most important requisites in a farmer or a farmer's help. No machine should go upon any farm without the farmer comprehending it in all its parts, the requirement and relation of each part to the other, how to adjust and care for it, how to remedy difficulties that may arise, and keep the whole machine in proper working condition without the aid of a machinist, unless in exceptional circumstances. It should be the first duty of the hired help to learn the same lesson, if he is to be intrusted with the machine's use. This is urged as a matter of economy. It is frequently the case that a non-observant farmer loses the time of his men and his own, besides making a bill at the blacksmith's or machinist's, when a little gumption and ten minutes' time properly applied would have saved all loss."

THICK AND THIN SAWS.—It is said that the manufacture of mortar, beton, and concrete, from the waste lime of gas purifiers—a discovery or invention announced only a short time ago—has already commenced on an extensive scale in England. The method of thus utilizing what has hitherto been considered an almost worthless refuse, consists, in this case, of simply grinding it up in an ordinary mortar mill, or mixing it as common lime with sand, ashes and similar material. The addition of Portland cement to the mixture is found to render the product—brick, slabs, etc.—much harder.

WOODEN NEST EGGS.—A correspondent writes us, says an exchange, that he has been trying wooden nest eggs, and finds them preferable to glass or china, in that they are lighter and there is no danger of them breaking the eggs that may be laid in the nest. There is no danger of sending bad eggs to market if all real eggs are gathered often; and no danger from chickens or hens learning to eat eggs, which they are apt to do if an egg gets broken by freezing, or by collision with a china egg.

To extract ink from cotton, silk and woolen goods, saturate the spots with spirits of turpentine, and let it remain several hours; then rub it between the hands. It will crumble away without injuring either the color or texture of the fabric.

Soft Shelled Eggs.

The ideas concerning the ovaries and reproductive apparatus of poultry, are rather loose and unphilosophical. From a close observation of quite an extensive lot of poultry for a series of years, we are of opinion that the cause of soft shell eggs may be looked for in two directions. The one is hereditary influence, through which there is an inherent weakness in the secretory surface of the lower portions of the oviduct, on account of which the lime secretion is interfered with; the second is an inflammatory or other condition of the oviduct, on account of which the egg either passes through the lower portion too rapidly to secure the proper coating, so the secretory surface cannot perform its usual functions. There can be no question but that the lime present in the ordinary mixed food of poultry is amply sufficient for their needs. The feeding of lime dust is healthy without doubt, but we can see no evidence of any specific good therefrom, (or from the feeding of lime,) on the egg covering, the shell. Give your hens flat roosts, at least six inches broad, or preferably a wider board, and report the result, after a sufficient time has elapsed to note whether improvement has followed the change.—*Massachusetts Ploughman*

COMPUTING THE SPEED OF GEARING AND PULLEYS.—The following simple rule for calculating the speed or gearing of pulleys is, doubtless, in familiar use by many mechanics. We give it, however, for the convenience of those of our readers who may not happen to be acquainted with it, and who have found the need in practice of a uniform rule, applying to all cases. To find the speed of a driven wheel, when the number of teeth of both wheels and the number of revolutions of the driving wheel are given: Multiply the number of teeth of the driving wheel by the number of its revolutions; divide the product by the number of teeth of the driven wheel, and the quotient will be the number of revolutions of the driven wheel.

REMOVING HAIR FROM HIDES.—A canny Scot has discovered that if a hide is immersed for four or five days in a mixture of vegetable or animal charcoal and water, of the consistency of a thin paste, the hair is entirely removed, and the leather made from a hide thus treated is of superior quality.

USEFUL INFORMATION.

Reduction of Obesity.

An exchange says: "Obesity is made the subject of an interesting article in the *Journal des Connaissances Medicales*, by Dr. Corlieu. Dr. Banting's system of cure consists, as is pretty generally known, in abstaining from bread, butter, milk, sugar and potatoes; taking about five ounces of beef, mutton, fish, or bacon, for breakfast, with a large cup of tea without either milk or sugar, and with an ounce of biscuit or toast; for dinner, about six ounces of any fish except salmon; of any kind of meat exclusive of pork, and of any vegetables save potatoes. Game, fowls, pudding, champagne, port and beer, forbidden.

Another method is described in the article before us as tried by a physician, Dr. Philbert, who was himself the patient. At the age of twenty-six he weighed three hundred and ten pounds, and measured four feet ten inches around the abdomen. His sleep was heavy, his pulse irregular at seventy-two per minute, his appetite and digestion were good. Having placed himself under the care of Dr. Schindler, at Marinbad, Bohemia, he treated him as follows: Get up at six in the morning; from half-past six to seven take three glasses (six ounces each) of the Krentzbrunn spring; from half past seven to eight, two boiled eggs and a cup of tea, and a small roll; from nine to ten, a vapor bath daily, the first perspiration being followed by friction with a gloved hand and a cold douche; the second by rubbing with a soft flesh-brush; the third by flagellation with a bundle of poplar twigs with their leaves on, then a second douche of cold water. On leaving the bath rubbing the body with vinegar. After the bath, a walk. At eleven A. M., two dishes of meat or fish, one of vegetables, boiled fruit without sugar, half a bottle of wine, and two small rolls. From noon to six a permanent stay in the forest surrounding the town, walking as much as possible without fatigue. At six, a dish of cold meat, boiled fruit as above, half a bottle of wine and a roll of bread. A walk after this dinner. At eight, shampooing with soap; half an hour later to bed. Morning and evening, five alkaline pills.

The treatment lasted six weeks, at the end of which he had lost thirty-five pounds. He then continued the cure at home, with the Marienbad waters for a fortnight, and afterward went to Fontainebleau in order to eat two pounds of grapes gathered on the spot, every morning fasting. At the end of two months he had reduced his weight to two hundred and fifty-six pounds, and has since come down to one hundred and eighty pounds, enjoying excellent health.

NATURAL ANTISCORBUTICS.—General Sherman says that the *agave Americana*, or Spanish bayonet, the fruit of the common prickly pear, and the succulent leaves of some of the varieties of the cactus that abounds on the deserts of Texas, New Mexico and Arizona, furnish excellent specifics for that horrible disease, the scurvy.

Structure of a Cow's Horn.

It is very frequently the case that in the commonest, most uninviting of objects, we may see (if we like) beautiful examples of engineering skill. A few days since, says Mr. Frank Buckland in *Land and Water*, I was inspecting the large taneries of the Messrs. Hamlyn at Buckfastleigh, on the River Dart, Devonshire. In one of the back yards was a mountain of the skulls and horns of cows of all sorts and kinds. Here there was a treasure worthy of investigation; so I got on to the mountain of horns and skulls, and picked out some beautiful specimens which Mr. Hamlyn kindly gave me, in order to make sections, etc. I find that over the brain of the cow a strong roof of bone is thrown in the shape of an arch, so as to form a substantial foundation for the horns. This roof is not solid, but is again strengthened below by a series of bony arches, that are so distributed as to form a series of hollow chambers, thus forming a structure uniting strength with lightness.

The problem now is, how to fasten the horn on each side on to this buttress. The horn itself must of course be formed of horn proper, i. e., hardened hair. In the rhinoceros, we find a horn composed entirely of a solid mass of what is really a bunch of hair agglutinated together; but this kind of horn would have been much too heavy for the cow's convenient use. What is to be done? Why, hollow out the center of the horn of course; but stay—this will not do, because how is the horn to be supplied with blood-vessels?—in fact, how is it to grow? Let us see how it is done by the great Designer.

Cut the horn right across with a saw, and you will find inside another horn, only made of bone. If the section is made about one-third of the way down the length of the horn, you will be able to pick out a piece of bone in the shape of a cone, on which, or rather round which, the horn proper has shaped itself. This bone fits the cavity with the greatest accuracy; it is as light as the thinnest paper, and yet as strong as a cone of tin. It is everywhere perforated with holes, which in life contained the nerves, the veins and arteries, and we know a cow has all these in her horns; nerves proved by the fact that cows do not like their horns touched, and that they can scratch a fly off their hides with the top of the horn; arteries and veins, proved by the fact that a horn when broken will bleed, and that the horn of a living cow feels quite warm when held in the hand, besides which the nerves and arteries form a union between the internal core of bone and the external covering of horn proper.

If we now cut the rest of the horn into sections we shall find that the inside of the bony part is really hollow, but that very strong buttresses of bone are thrown about every inch or so, across the cavity of the horn in such a manner as to give it the greatest possible support and strength. I have cut a cow's horn and skinned into several sections to show these buttresses of bone, and now that the preparation is finished I have another specimen to show that there is design and beauty in all created objects.

Chinese India Ink.

Although the Chinese prepare their ink from the kernel of some amygdalaceous fruit, yet, by the aid of our present chemical appliances we are able to produce a composition in no way inferior to the best Chinese ink, by the adoption of a formula which is given in Riffault's treatise on the "Manufacture of Colors." The following is the formula:

Calcined lampblack, 100 parts; hogsheld shale black, in impalpable powder, 50 parts; indigo carmine, in cakes, 10 parts; carmine lake, 5 parts; gum arabic (first quality), 10 parts; purified oxgall, 20 parts; alcoholic extract of musk, 5 parts.

The gum is dissolved in 50 to 60 parts pure water, and the solution filtered through a cloth. The indigo carmine, lake, lampblack and shale black are incorporated with this liquor, and the whole ground upon a slab with a muller, in the same manner as ordinary colors; but in this case the grinding takes much longer. When the paste is thoroughly homogeneous the oxgall is gradually added, and then the alcoholic extract of musk. The more the black is ground the finer it is. The black is then allowed to dry in the air until it has acquired sufficient consistency to be molded into cakes, which in their turn are still further dried in the air, out of the reach of dust. When quite firm these cakes are compressed in bronze molds, having appropriate designs engraved upon them. The molded ink is then wrapped in tinfoil, with a second envelope of gilt paper. The ink which has been prepared in this manner possesses all the properties of the real Chinese article. Its grain is smooth; it flows very well, mixes perfectly with many other colors, and becomes so firmly fixed to the paper that other colors may be spread over it without washing it out.

USEFUL INFORMATION.—It is sometimes useful to know how to dissolve silver without attacking copper, brass or German silver, so as to remove the silver from silvered objects, plated ware, etc. A liquid for the purpose is simply a mixture of nitric acid with six parts of sulphuric, heated in a water bath to 106 deg. Fah., at which temperature it operates best. By this means the old silver attached to plated ware, old daguerreotype plates, etc., may be removed and saved without necessity for wasting acids in dissolving a large amount of useless metal.

PATRONS OF HUSBANDRY.

STATE GRANGE HEADQUARTERS.

I. G. GARDNER, State Agent; Executive Committee Rooms, Fruit Growers' Association, and Farmers' Mutual Insurance Company, all at No. 6 Lido-dor street, W. H. BAXTER, State Secretary, at Grangers' Bank, 415 California street, S. F.

Grange Clubs for the Rural.

The Secretary (or some other Patron) is invited to act as club agent for the Pacific Rural Press in every Grange. Circular and sample copies sent free. Five or more names will constitute a club, at the rate of \$3 a year. No new subscriptions will be taken without payment in advance. We will pay the postage after Jan. 1st, 1875. All club subscriptions in Granges should end on the last day of the month. Old subscribers may join the club by paying the Secretary up to club dates. Every Patron farmer should read a reliable agricultural paper. We need the support of all on this coast. Help the Secretary (or club agent) to make up a large list in your neighborhood. Don't delay.

NOTICE.

From and after this date, all moneys due to the State Grange by Subordinate Granges should be forwarded to the Grangers' Bank of California, No. 415 California street, San Francisco, together with reports appertaining thereto, addressed to me.

JOHN B. CARRINGTON,
Treasurer State Grange.

November 4th, 1874.

Installation of Officers.

Any member of the State Grange is empowered to install the officers of any Subordinate Grange.

J. M. HAMILTON,
W. M. State Grange of Cal.

Extra Copies of the Pacific Rural Press
Containing Grange addresses, resolutions, obituaries, etc., will be furnished post-paid at ten cents per copy. Grangers wishing numerous copies should send the order for them with the MS.

Secretaries will be supplied with a printed list of subscribers for this paper upon sending a list of post offices within the range of their Grange. Also with blank report, etc., for clubs.

GRANGE DIRECTORY.

National Grange.

OFFICERS:

Master—DUDLEY W. ADAMS, Waukon, Iowa.
Deputy—THOMAS TAYLOR, Columbia, South Carolina.
Lecturer—T. A. THOMPSON, Plainville, Wash. Co., Minn.
Steward—A. J. VAUGHAN, Early Grove, Marshall Co., Miss.
Assistant Steward—G. W. THOMPSON, New Brunswick, N. J.
Chaplain—KEY, A. B. GROSS, Washington, D. C.
Treasurer—F. M. McDOWELL, Corning, N. C.
Secretary—O. H. KELLEY, Washington, D. C.
Gate keeper—O. DINWIDDIE, Orchard Grove, Lake Co., Ind.
Pomona—Mrs. D. W. ADAMS, Waukon, Iowa.
Pomona—Mrs. D. W. ADAMS, Waukon, Iowa.
Flora—Mrs. J. C. CABOTT, Clarksville, Butte Co., Iowa.
Lady Assistant Steward—Miss O. A. HALL, Washington, D. C.
Executive Committee:
WILLIAM SAUNDERS, Washington, D. C.
D. W. F. ALLEN, Columbus, Ohio.
E. R. SHANKLAND, Dubuque, Iowa.

California State Grange.

OFFICERS:

Master—J. M. HAMILTON, Guenoc, Lake Co.
Deputy—O. L. ARBUTT, Santa Barbara.
Lecturer—W. H. WRIGHT, Borden, Fresno Co.
Steward—N. L. ALLEN, Salinas, Monterey Co.
Assistant Steward—W. H. JACKSON, Woodland, Yolo Co.
Chaplain—J. A. HUTTON, Yolo, Yolo Co.
Treasurer—J. B. CARRINGTON, Denver, S. Lugo Co.
Secretary—W. H. BAXTER, Leidesdorff street, S. F.
Gate keeper—R. K. WARDER, Waterford, Stanislaus Co.
Pomona—Mrs. G. W. DAVIS, Santa Rosa, Sonoma Co.
Flora—Mrs. S. C. BAXTER, Napa City, Napa Co.
Lady Assistant Steward—Mrs. S. M. GARDNER, Grayson, Stanislaus Co.

Executive Committee:

J. M. HAMILTON, W. M., Chairman, Guenoc, Lake Co.
I. G. GARDNER, Guenoc, Stanislaus Co.
J. C. MERRIFIELD, Dixon, Solano Co.
H. M. LEONARD, Santa Clara, Santa Clara Co.
J. M. THOMPSON, Suscol, Napa Co.
G. W. COLBY, Nord, Butte Co.
A. B. NALLY, Windsor, Sonoma Co.
—Address, at present, San Francisco.

List of Organizing Deputies.

COUNTY.	DEPUTY.	POST OFFICE.
Alameda.	Thos. Heller.	Eden.
Amador.	H. Vanderpool.	Pl. South.
Butte.	Ed. Hallett.	Chico.
Butte.	Wm. M. Thorpe.	Chico.
Butte.	G. W. Colby.	Nord.
Colusa.	J. H. Hick.	Grand Island.
Colusa.	D. H. Arnold.	Spring Valley.
Contra Costa.	R. G. Dunn.	Antioch.
El Dorado.	A. J. Christie.	Coloma.
Fresno.	J. W. A. Wright.	Borden.
Humboldt.	H. Arbogast.	Arboga.
Inyo.	J. J. Furber.	Bishop's Crk., Inyo.
Lake.	H. A. Oliver.	Guenoc.
Los Angeles.	Thos. A. Grey.	Los Angeles.
Los Angeles.	Ed. Evey.	Anaheim.
Mendocino.	Ed. Wilson.	Chico.
Mered.	H. B. Jolly.	Merced City.
Modoc.	I. S. Mathews.	Fort Jones.
Monro.	T. J. Furber.	Bishop's Crk., Inyo.
Monterey.	J. D. Fowler.	Hollister.
Placer.	A. D. Nelser.	Rockville.
Sacramento.	W. S. Manlove.	Sacramento.
San Benito.	J. D. Fowler.	Hollister.
San Francisco.	I. G. Gardner.	San Francisco.
San Francisco.	A. J. Hoger.	San Francisco.
San Joaquin.	A. Wolf.	Sio. Kon.
San Luis Obispo.	A. J. Mothershead.	Moro.
San Luis Obispo.	Isaac Flood.	Old Creek.
Santa Barbara.	O. L. Abbott.	Santa Barbara.
Santa Clara.	J. W. Heintz.	San Jose.
Shasta.	J. T. Bunting.	Reinburg.
Siskiyou.	I. S. Mathews.	Fort Jones.
Solano.	K. C. Carrington.	Denverton.
Solano.	R. C. Hale.	Suisun.
Sonoma.	G. W. Merryfield.	Dixon.
Sonoma.	Geo. W. Davis.	Santa Rosa.
Sonoma.	A. B. Nally.	Windsor.
Sonoma.	T. H. Merry.	Head-hau g.
Sta. Inghis.	J. D. Spenser.	Modesto.
Stanislaus.	W. H. Baxter.	Modesto.
Sutter.	Geo. Oehler.	Yuba City.
Tehama.	A. G. Loomis.	Farmington.
Tulare.	M. S. Biscock.	Kingston, Fresno.
Yolo.	Wm. Sims.	Buckeye.

General Deputies.

Alameda. Ezra S. Carr. Oakland.
Fresno. J. W. A. Wright. (W. L.) Borden.
Lake. J. M. Hamilton. (W. M.) Guenoc.
San Francisco. W. H. Baxter. (W. S.) Leidesdorff St.
San Francisco. John H. Hegler. San Francisco.
Solano. John B. Carrington. Deuon Co.
NEVADA.
Farmers desiring to organize Granges, can apply to J. M. Hamilton, (W. M. Master), Guenoc, Lake Co.; W. H. Baxter, (W. S. Secy), No. 6 Leidesdorff St., S. F.; J. W. A. Wright, (W. Lecturer), Borden, Fresno Co.; or to the nearest Deputy to their locality.

California District and County Councils.

ALAMEDA COUNTY—JOEL RUSSELL, Haywood, M.; T. HELLAR, S.
LOS ANGELES AND SAN BERNARDINO DISTRICT—T. A. GAREY, Los Angeles, M.; J. P. MARQUIS, Anaheim, S.
MENDOCINO COUNTY, Ukiah City: L. F. LONG, M.; J. A. KNOX, S.
MONTEREY AND SANTA CRUZ DISTRICT—J. R. HEBBRON, M.; A. F. RICHARDSON, S.
NAPA DISTRICT—J. D. BLANCHARD, M.; H. W. HASKELL, S.
SACRAMENTO, EL DORADO AND PLACER DISTRICT—OFFERS not reported.
SAN LUIS OBISPO COUNTY—A. J. MOTHERSHEAD, M.; J. M. MANNON, S.
SANTA CLARA COUNTY—H. M. LEONARD, M.; I. A. WILCOX, S. Regular meetings every three months, alternately at Santa Clara and Fresno.
SANTA BARBARA AND SAN LUIS OBISPO DISTRICT—Officers not reported.
SOLANO COUNTY—J. B. CARRINGTON, M.; J. M. JONES, S.
SONOMA COUNTY—McPHERSON, M.; J. A. O'BRIEN, S.
STANISLAUS COUNTY—R. R. WARDER, M.; VITAL E. BANGS, S.
TULARE COUNTY—J. M. Graves, M.; F. L. JEFFERDS, S.
VENTURA COUNTY COUNCIL—MILTON WASON, M.; E. R. HIGGINS, Secretary.
WEST SAN JOAQUIN DISTRICT, (Merced, San Joaquin and Stanislaus counties)—W. J. MILLER, Oristimba, M.; THOMAS A. CHAPMAN, Oristimba, S.

California Subordinate Granges.

[This list contains the names of Masters and Secretaries so far as reported to us, elected to serve during the year 1875. In Granges not reported we continue the names of last years officers. Secretaries and others will greatly oblige us by making needed corrections.]
EXPLANATIONS.—The P. O. address is given only where it is different from the name of the Grange.

ALAMEDA COUNTY.
Grange and P. O. Master. Secretary.
CENTERVILLE. JAS. SHINN. M. R. STUBBS.
EDEN. Haywood's. THOS. HELLAR. Wm. PRANGE.
HAMILTON, BIRKS' Stn. H. L. LANSSELLE. A. RANDALL.
LIVERMORE. D. ISMAN. F. K. FARSETT.
SUNOL. G. M. CARB. S. W. MILLARD.
TEMSICAL, Oakland. J. V. WEBSTER. JOHN COLLINS.

BUTTE COUNTY.
CHICO. E. HALETT. H. W. BARNES.
EYEING STAR. E. W. S. WOODS. O. F. BUTLER.
NORD, P. O. Nord. G. VAN WORTH. H. P. GUN.

CALAVERAS, J'ny Lind. M. F. GREGORY. A. MILES.

COLUSA COUNTY.
ANTELOPE VALLEY. JOHN SITES. P. PETERSON.
ENTER. Colusa. J. P. KIMBLE. W. G. SAUNDERS.
COLUSA. Colusa. W. K. ESTELL. R. JONES.
FRESHWATER, Colusa. P. S. PERDUE. R. A. WILKEY.
FUNK SLOUGH, Colusa. E. C. HUNTER. J. G. WOLFE.
GRAND ISLAND. Wm. OGDEN. J. H. DUFFEL.
NEWVILLE. B. N. SCHRIEN.
PLAZA, Jacinto. E. C. GRAVES. M. KENDRICK.
PRINCETON. R. R. RUSH. P. H. SCOTT.
SPRING VALLEY. D. H. ARNOLD. L. T. HAYMAN.
UNION, Princeton. J. F. GARR. W. W. DOLLINGS.
WILLOWS, Princeton. J. W. ZUMWALT. G. T. HICKLIN.

CONTRA COSTA COUNTY.
ALHAMBRA, Martinez. J. STENZELL. W. A. FRAZER.
ANTIOCH. M. A. WALTON. J. D. DABRY.
DANVILLE. G. WOOD. J. B. SANDY.
POINT OF TIMBER. R. G. DEAN. E. W. GALEY.
WALNUT CREEK. N. JONES. Wm. K. DALY.

EL DORADO COUNTY.
CLARKSVILLE. K. T. MILLS. I. MALTBY.
EL DORADO. J. G. CARPENTER. J. M. B. WEAVER.
FLAT HILL, Flat Hill. D. BROWN. A. HAYLER.
SUTTER MILL, Colusa. A. J. CHRISTIE. H. MAILER.

FRESNO COUNTY.
ADAMS, Big Dry Creek. T. P. NELSON. J. WYATT.
ORDEN. J. W. A. WRIGHT. J. FONTAINE.
FRESNO, Fresno City. D. C. LIBBY. D. YATES.
GARRETTSON, King's R. J. BURNS. H. C. HIGBY.
RISING STAR, Panoche. W. W. HAGAR. W. M. POUER.
SYCAMORE. A. C. BRADFORD. J. A. ALLEN.

HUMBOLDT COUNTY.
ELK RIVER, Eureka. T. S. STEWART. D. A. DEMERITT.
FERDALE. E. Z. BOYNTON. E. C. DAMON.
KIALEAITH, Arcata. H. W. ARBOGAST. C. DANIELS.
MATTOLE, Petrolia. S. GOFF. D. J. JOHNSON.
ROBINVILLE. H. S. CASE. S. STORCK.
TABLE BLUFF. J. KAWYEL. E. CLARK.

INYO COUNTY.
BISHOP'S CREEK. A. DELL. W. T. WISWALL.
HIDDEN DENCE. J. W. STIMS. J. B. WHITE.
LOVE PINE. J. J. MCALL. A. H. JOHNSON.

KERN COUNTY.
BAKERSFIELD. J. R. RILEY. P. D. JEWETT.
CUMMINGS VALLEY, Tehachas. G. THOMPSON. T. YATES.
LINN'S VALLEY, Greenville. S. W. WOODY. S. R. REDD.
NEW RIVER, Bakersfield. J. G. DAWES. J. DIXON.
PANAMA, Bakersfield. H. D. ROHR. J. F. GORDON.
RISING STAR, Panoche. J. H. VALLEY. J. W. JACKSON.
TEHACHA. J. NORRIS. J. F. FRETWELL.
WELDON. R. T. MELVIN. J. T. H. GRAY.

LAKE COUNTY.
GUENOC. H. A. OLIVER. A. A. RITCHIE.
KELSEYVILLE. D. P. SHATTUCK. J. H. RENFRO.
LAKEPORT. J. W. BOGGS. N. PHELAN.
LOWER LAKE. A. E. NOEL. G. H. SNOW.
UPPER LAKE. D. V. THOMPSON. D. Q. MCCARTY.

LOS ANGELES COUNTY.
ALLIANCE, El Monte. J. D. DORFEE. W. H. HOUSE.
A. L. A. F. Monte. W. W. MAXEY. J. C. PRESTON.
COMPOX. H. J. MORTON. G. L. RUSSELL.
EL MONTE, Los Angeles. G. C. GIBBS. J. H. GRAY.
ENTERPRISE, Los Angeles. A. SOUTHWORTH. W. HENDERSON.
EUREKA, Spadra. G. BURDICK. P. C. TONNER.
FAIRVIEW, Anaheim. E. EBY. J. M. QUINN.
FLORANCE, Los Angeles. J. H. RUSSELL. W. PORTER.
FRUITLAND, Sta. Ana. N. O. STAFFORD. L. H. COLLINS.
LOS ANGELES. T. A. GARY. S. A. WALDRIN.
LOS NIETOS. J. F. MARQUE. W. S. KEAVIS.
NEW RIVER, L. Nietos. W. NEWTON. S. G. BAKER.
ORANGE. J. E. WELCH. L. J. W. GRAVE.
SILVER L. Nietos. H. L. MONTGOMERY. W. P. McDONALD.
SPADRA. A. T. CURRIER. JOS. WRIGHT.
VINELAND, Tustin. C. A. HAYWOOD. R. L. FREEMAN.
WESTMINSTER, Anaheim. M. B. CRAIG. W. F. POOR.

MARIN COUNTY.
NICASIO. P. K. AUSTIN. J. W. NOBLE.
POINT REYES. N. H. STINSON. A. H. STINSON.
TOMALES. Wm. VANDERBILT. R. H. PRINCE.

MENDOCINO COUNTY.
CAHITO. R. M. WILSON. J. P. SIMPSON.
LITTLE LAKE. E. J. MAST. W. A. CLARK.
MANCHESTER. E. F. MCCLURE. W. F. MCCLURE.
POMO. J. MEWHINEY. G. E. NICHOLS.
POTTER VALLEY. L. A. PIERSTON. Mrs. A. H. SLINGERLAND.
ROUND VALLEY, Gavelo. P. HANDY. J. A. CRAWFORD.
SAND. J. E. WELCH. M. M. GREGORY.
UKIAH. THOS. J. LUCAS. A. O. GARY-STER.

MERCED COUNTY.
BADGER FLAT, L. Ranos. A. P. MERRITT. J. F. CLARKE.
GUTTONWOOD. L. CRITTENDEN. J. M. DALY.
IOPEFON. JOHN RUDDELL. T. EAGLESON.
LOS BANOS. S. A. SMITH. JOHN BAKER.
MERCED. W. E. ELLIOTT. JAS. R. HASTON.
PLAINBURG. J. E. WELCH. T. J. E. WILCOX.
SNELLING. D. YEISER. W. L. HANLIN.

MONTEREY COUNTY.
HOLLISTER. R. ROCKLEDGE. MARY E. COWAN.
MORNING STAR, Castroville. D. M. C. WILLIAMS. F. BLAKE.
PAJARO, Watsonville. D. M. CLOUGH. L. B. JOHNSON.
SALINAS. O. S. ARBUTT. CLARA WESTLAKE.

NAPA COUNTY.
BERRYESSA, Monticello. J. W. SMITTLE. L. H. RIFORD.
CALI-FOGA. W. S. PRATT. C. H. MENEFEE.
NAPA, Napa City. J. B. SACL. MANUEL EBYE.
POPE VALLEY. J. A. VAN ARSDALE. A. A. BOOTH.
RUTHERFORD, Yntville. G. S. BURRIDGE. H. W. GRAVE.
ST. HELENA. J. LEWELLYN. CHAS. A. STORY.
YOUNTVILLE. J. M. MAYFIELD. F. GRIFFIN.

PLACER COUNTY.
LINCOLN. M. WALDRON. J. S. MARRINER.
ROSEVILLE. W. F. DAVIS. ROBERT WARD.
SUMMIT. D. M. LONG. S. J. LAWS.

SACRAMENTO COUNTY.

AMERICAN RIVER, Patterson. F. G. MORTON. C. WILSON.
CONSUMERS, Sheldon. J. A. ELDER. J. H. ATKINS.
ELK GROVE. O. S. FREEMAN. DELOS GAOR.
ENTERPRISE, Brighton. G. M. BERTIN. W. A. BATES.
FLORIN. L. FISCETTE. J. J. BATES.
GRANVILLE. AMOS ADAMS. P. R. BECKLEY.
J. C. SAWYER. J. L. FIFIELD.
GEORGIANA, Rio Vista. F. M. KITTRELL. G. A. KNOTT.
SACRAMENTO. W. S. M. KITTRELL. E. F. AIKEN.
SILVERMAN, Emmatlon. J. M. UPHAM. W. M. ROBBINS.
WALNUT GROVE. S. REXTON. J. V. PRATHER.

SAN BENITO COUNTY.
MOUNTAIN, San Benito. G. BUTTERFIELD. J. W. MATHews.
SAN BERNARDINO COUNTY.
RINCON. F. M. SLAUGHTER. JOHN TAYLOR.
RIVERSIDE. E. G. BROWN. G. W. GARDEN.
SAN BERNARDINO. H. SWELTON. J. BRODHURST.

SAN DIEGO COUNTY.
SAN JACINTO. T. D. HENRY. Mrs. M. COLLINS.
SAN JOAQUIN COUNTY.
ATLANTA, Morano. S. MYERS. W. MASSEY.
CASTORIA, Stockton. H. W. GOWELL. Miss S. REYNOLDS.
COLLEGEVILLE. P. P. WARD. G. A. BEACH.
ELL O. HENRY H. WEST. N. S. MEISNER.
FARMINGTON. Wm. ST. JOHN RODGERS. E. O. LONG.
LIBERTY, Acampo. J. M. COOK. VICTOR JAHANT.
LINDEN. JOHN WARELY. JAMES WARELY.
LOCKEFORD. G. C. HOLMAN. S. S. STEWART.
LODI. JOHN LABROT. Mrs. N. CROUCH.
STOCKTON. S. P. WHITMAN. O. E. ATWOOD.
T. L. KETCHUM. E. N. ALLEN.
WASHINGTON. J. W. COLLARS. M. L. COOK.
WEST S. JOAN, Ellis. O. E. NEEDHAM. J. QUACKENBUSH.
WILWOOD. E. D. MORRISON. W. M. MCNEY.
WOODBRIDGE. E. R. FISKE. A. S. THOMAS.

SAN LUIS OBISPO COUNTY.
ARROYO GRANDE. W. H. NELSON. B. J. WOOD.
CARMITA. C. H. IVINS. H. OLMSTEAD.
MORO CITY. A. J. MOTHERHEAD. H. Y. STANLEY.
MORO CITY. E. ACAC. FLORES. R. M. PRESTON.
PASO ROBLES. H. W. RYNE. J. P. MOODY.
SAN LUIS OBISPO. Wm. JACKSON. E. L. REED.
SUMMIT, San Marcos. J. V. N. YOUNG. A. T. FOSTER.

SAN MATEO COUNTY.
CRESCENT. H. M. JEWELL. JAMES COMPTON.
LA HONDA. M. WOODHAMS. Mrs. J. F. WOODHAMS.
MORO CITY. J. C. KNOX. H. Y. STANLEY.
PASCADERO. R. J. KNOX. H. Y. STANLEY.
SAN MATEO. A. F. GREEN. W. H. LAWRENCE.

SANTA BARBARA COUNTY.
CARPENTRIA. O. N. CARWELL. G. E. THERMARD.
CONFIDENCE, Guadalupe. A. COPELAND. J. T. AUSTIN.
SANTA BARBARA. O. L. ABBOTT. Y. F. RUSSELL.
SANTA MARIA, Suoy Station. J. MILLER. M. D. MILLER.

SANTA CLARA COUNTY.
GILROY. W. Z. ANGESEN. H. COFFIN.
MAYFIELD. W. W. WEISSHAAR. J. PONCE.
SAY JUNE. Wm. ERISON. RUFUS FISS.
SANTA CLARA. S. J. JAMESON. I. A. WILLCOX.
SARATOGA. F. D. ELLER. Miss J. FARWELL.

SANTA CRUZ COUNTY.
BEN LOMOND, Sta. Cruz. JOHN BURNS. JAS. BURNS.
SANTA CRUZ. G. C. WARDWELL. T. P. LINDSTON.
WATSONVILLE. J. MCCOLLIN. SARAH REDMAN.

SHASTA COUNTY.
COTTONWOOD. G. G. KIMBALL. JOHN BARRY.
MILLVILLE. J. P. WEBB. A. CALDEN.
READING. J. E. DINGMORE. S. J. R. GILBERT.

SISKIYOU COUNTY.
JETNA. JOHN MCBRIDE. J. MCCONAUGHY.
FORT JONES. J. S. MATTHEWS. J. W. TUTTLE.
MT. BOLIVAR, Callahan's R. K. M. JAYDEN. J. A. COLE.

SOLANO COUNTY.
BINGHAMPTON. A. BENNETT. E. A. BEARD-LEY.
DENVERTON. J. B. C. BINGHAMPTON. G. C. ARNOLD.
DIXON. J. C. MCKEE. R. F. KELLY.
ELMIRA. J. A. CLARK. M. D. COOPER.
MONTEZUMA, Colville. T. HOOPER. C. K. MARSHALL.
RIO VISTA. JOSEPH POOL. G. A. KNOTT.
ROCKVILLE, Colville. W. L. LATTIN. J. R. MORRIS.
SANTA CRUZ VALLEY. W. C. SMITH. T. S. COOPER.
VACAVILLE. E. K. THURBER. OSCAR DORRIN.
VALLEJO. S. S. DRAKE. CHAS. B. DEXING.

SONOMA COUNTY.
BENNETT VALLEY, Sta. Rosa. W. CARR. C. N. WHITTAKER.
BLOOMFIELD. Vm. H. WHITE. A. B. GLOVER.
BODAGA. E. S. PIERCE. E. H. CHONEY.
CLOVERDALE. CHAS. H. COOLEY. J. H. COOLEY.
GEYSER VALLEY. C. J. MORRIS. A. E. GLOVER.
HEADSBERG. B. B. CAPPEL. W. N. GLADEN.
PETALUMA. L. W. WALKER. D. G. HEALD.
SANTA ROSA. GEO. W. DAVIS. J. A. O'BRIEN.
SEBASTOPOL. J. W. HEDSPETH. T. S. HENT.
SONOMA. Wm. C. HILL. T. S. COOPER.
TWO ROCK. S. O. BARLOW. HOWARD ANDREWS.
WINDSOR. A. B. NALTY. J. H. MCLELLAND.

STANISLAUS COUNTY.
BONITA, Crow's Ldg. J. W. TREADWELL. A. B. CROOK.
CERES. H. W. BROUSE. C. N. WHITTAKER.
GRAYSON. Wm. LOVE. A. H. FLORE.
OAK DALE. A. S. EMERY. C. B. INGALLS.
ROCKVILLE, Hitt's. W. W. MILLER. E. H. ROBINSON.
SALIDA, Modesto. P. ESCENT. A. E. GLOVER.
STANISLAUS, Modesto. V. E. BANOR. J. D. HOPE.
TULOCK. A. S. FILLICKER. W. S. ROBINSON.
WATERFORD. S. M. GALLUP. J. B. BOOTH.

SUTTER COUNTY.
NORTH BUTTE. B. R. SPILLMAN. J. D. DOW.
SUTTER, Pleasant Grove. F. BOYD. A. DONALDSON.
SUTTER, Meridian. W. C. SMITH. J. M. GLADEN.
YUBA CITY. R. F. WALTON. J. HONDY.

TEHAMA COUNTY.
FARMINGTON. C. F. FOSTER. S. H. LOOMIS.
NEW SALEM, Paken's. O. HARRIS. J. R. WHITLOCK.
RED BLUFF. R. H. BLOSSOM. C. E. FONDA.

TULARE COUNTY.
CHRISTMAS, Visalia. A. B. COREY. W. H. STUART.
D. P. CREEK, Panoche. G. F. JEFFERDS. W. G. TENSENBAKER.
FRANKLIN, Kingston. W. L. MORTON. G. W. CAMP.
LAKE, Kingston. M. S. BARCOCK. Mrs. E. D. TIMMONS.
MOUNT WHITNEY. G. W. DUNCAN. A. THOMPSON.
TULARE. D. E. WILSON. VICTORIA WRIGHT.
TULE RIVER, Portville. G. A. WILLIAMS. N. T. BLAIR.
VISALIA. T. FOWLER. J. O. BLAKELEY.
WOODVILLE. J. A. SLOVER. J. STEWART.

TUOLUMNE COUNTY.
SONORA. G. C. SOULS. R. F. WILLIAMS.

VENTURA COUNTY.
OJAI, S. Buenaventura. C. E. SOULE. J. HOBART.
PLEASANT VALLEY, D. R. DEBISH. J. BROWNING.
SAN BENITO, S. Buenaventura. H. H. VINTAGE. D. D. DENNIS.
SANTOYO. MILTON WASON. E. A. DUVAL.
SESPES, San Ventura. S. A. GIBBERSON. T. MARPLE.
VENTURA, San Ventura. J. WILLET. O. PERRIBLE.

YOLO COUNTY.
ANTELOPE. W. J. CLARK. T. F. NICHOLS.
BICKLEY. Wm. SIMS. L. MOORE.
CACE CREEK. D. H. CROSBY. L. D. STEPHENS.
CAPAY VALLEY. J. N. RHODES. N. W. HURBURN.
DAVISVILLE. J. O. CAMPBELL. W. HAND.
HUNTY HOLLOW, Yolo. G. L. PARKER. Mrs. A. E. DUTTON.
WEST GRAFTON, Yolo. A. W. MORRIS. G. W. PARKS.
YOLO, Woodland. J. A. HURTON. D. SCHINDLER.

MARYSVILLE. C. G. BOCKUS. JAS. M. CUTTS.

Nevada Subordinate Granges.

ALFALFA Reno, Nev.: G. W. HOFFKAMP. T. B. KLOCHER.
EAGLE VALLEY: G. W. CHEDIG. A. F. GILBERT. S.
CARSON VALLEY, Genoa: R. J. LIVINGSTON. L. S. CHILL.
WASHOE VALLEY, Frankton: ELIAS OWENS. M. G. D.

WILLINGTON, No. 6, Esmeraldi Co.: A. H. HAWLEY. M. J.
N. MANN. S.
MERIT, Mason Valley, Esmeraldi Co.: KIMBER CLEAVER.
M. CLARK CLEAVER. S.

Deputies who organize new Granges are requested to send the list of officers, and the names of all charter members, with other facts of interest, for free publication in the RURAL PRESS, as early as possible.

Co-OPERATION IN WISCONSIN.—The Wisconsin Granges already have established forty-one co-operative associations for selling goods and manufacturing, and twenty-nine insurance companies; all flourishing and representing capital to the amount of four million dollars.

Notes of Grange Travel.

Editors Press:—While passing through Salinas and Watsonville recently, on my return from Grange work through Southern California, the familiar scenes reminded me that you have as yet had no account of my visits as Lecturer in the early part of September, from the 31 to the 14th; so we will devote this paper to a brief summary of some items in that trip—the last before the State Grange meeting at Stockton—and will then glance at the trip to our southern counties and the conclusions drawn therefrom. From September 3d to 14th are embraced the visit to Monterey and Santa Cruz District Council, at Watsonville, and public lecture at the latter place, visits to Castroville, Salinas and Hollister Granges, the dedication of the new hall of Capay Valley Grange, in Yolo county, of which you have already received full accounts, and the meeting with Santa Clara Council, Sept. 14, of which Bro. Wilcox gave an account at the time. Through Santa Cruz, Monterey and San Benito counties Bro. and Sister Blanchard accompanied me, and their presence added much to the success and enjoyment of the trip.

We were impressed with the fact that the Salinas, Pajaro and Hollister regions form one of the most reliable and best wheat growing regions of California. For several years in succession farmers there have realized large crops, and you see evidences of it in the thrift and comfort which surround you everywhere. Consequently their towns are growing rapidly and solidly, their lands are attaining the highest values, their county is prosperous, their people seem

Contented and Happy.

By visiting the pleasant homes of Bros. Kellogg, Laird and Hebron, we had an excellent opportunity to see the best part of the not-d Salinas country. We do not wonder its people like to live there. It is easy to see they are all working on a solid and sure basis. You know it is in that country that some of our Grangers, yes we who as a class, according to one of your city

From the Granges.

Stockton Grange.

EDITORS PRESS.—It has been in contemplation for a long time with the sisters of Stockton Grange to start a library, for the benefit of the Patrons, who when they come to town have no place to go to, to get a paper to read, or a book either, unless they go into a saloon, the keepers of which seem to be the only public spirited people in town, in that respect, excepting the barbers and the Y. M. C. A., neither of which places are very attractive. The saloon keepers as a rule keep all the papers—daily, weekly and illustrated, and also set the most tempting lunches, (free) which few persons can resist, especially after riding in from the country, and arriving cold and wet. They find that the saloon keepers have made arrangements to warm them, and entertain and comfort them with hot or cold drinks and reading matter, and lunches got up in the best manner, often regardless of expense. It is these free lunches that assist men and boys in the first step towards drinking, the chief cause of which is the ignorance of the women at the present time of the science of preparing tempting, appetizing and at the same time, healthful dishes of food for their family, or the inability to do so, from their circumstances. You don't hear the "boy of the period" extolling the cooking of his mother, as of yore; but it is "What a splendid lunch such and such a man sets! What magnificent chowders, soups and salads!" All of which are often made from the cheapest material, but with the knowledge of a little of the science of cookery.

The sisters of Stockton Grange propose to rent a room for a library, and at the same time have a place where the Patrons can be accommodated with a good fire to warm themselves, a hot cup of tea or coffee, books and papers to read and at the same time enjoy the company of their fellow Patrons. To start this of course required funds. The sisters of Stockton were equal to the emergency, and got up an entertainment which took place on Tuesday evening, the 15th instant, which was public. Free tables were spread in the hall adjoining the Grange hall, and loaded with the good things which the Grangers know so well how to prepare. After supper they repaired to the Grange hall to witness the exercises.

At the close of the exercises, which were satisfactory in every respect, the young folks adjourned to the supper room, which was cleared for their reception, and enjoyed themselves an hour in a social dance.

The weather up to a late hour in the day was rainy, and fears were entertained that there would be but a slim attendance, especially from the country, but in the afternoon the weather cleared up, and the afterpart and evening was pleasant. You know our hall is of good size. Yet there was not room for all that wished to witness the entertainment. But we fed them all, and with such a supper as they seldom eat.

The price of admission was 50 cents for adults and 25 cents for children. The result was a success, in every sense of the word, as in fact all of our undertakings will be, when we unite and try to make them so. The next time the editors of the RURAL will be invited.

W. G. P.

Stockton, Dec. 20th, 1874.

Lake Grange.

EDITORS PRESS:—Our Grange is prospering finely at present, with a prospect of an increase of members this season. We had a harvest feast on Saturday evening, December 19th, with a large attendance. One of our State Grange officers was present and gave us a lecture with which we were all well pleased, and greatly benefitted thereby. He informed us of many facts new and interesting to many of our Patrons.

The rains set in early last fall and the weather continued showery until about the 15th of November. The farmers on the plains of the Mussel Slough country have been principally dependent on the rains for a crop; this year, however, most of them can procure water from the "Last Chance" water ditch which will be completed and flowing full of water in a short time, which will carry water enough to irrigate 4,000 acres of land.

J. H. J.

Lake Grange, Dec. 20th, 1874.

In Memoriam.

We have received the following from the Secretary of Ukiah Grange:

WHEREAS, It has been the will of Almighty God in his wisdom to remove from our midst by death our esteemed sister Mrs. Sarah Henry, therefore,

Resolved, That in the death of Sister Henry, our Grange has lost one of its most respected charter members; the community an upright, honorable woman; her family an affectionate, devoted wife and mother.

Resolved, That we extend to her bereaved husband and family our heartfelt sympathy in their sad hour of affliction.

Resolved, That the members of this Grange wear the usual badge of mourning for thirty days.

Resolved, That these resolutions be spread on the minutes of this Grange, and that a copy be sent to the family of the deceased, to the PACIFIC RURAL PRESS, and California Granger, for publication.

Adopted by Ukiah Grange, No. 114, P. of H., Dec. 19, 1874.

GEO. McCOWEN, Sec'y.

Imposition Upon the Grange.

Some person has attempted to perpetrate an anonymous fraud upon the Grange by sending to the Secretaries of subordinate Granges a circular so worded as to convey the impression that it comes from the State Grange.

More than three-fourths of the document consists of a quotation from the *California Granger*, and was intended by that paper as an argument against any change in text books, and in favor of McGuffey's readers, while the circular merely says:

"We should like to have every Grange express itself on this question, and forward its resolutions to the Secretary of the State Grange that he may present them all together to the State Board at its next meeting, which is to be held at Sacramento, January 5th. We may not influence its action, but we will, at least, have had our say."

It is gratifying to note that the document bears internal evidence of being the work of some outsider, for every Patron knows that the Secretary of the State Grange can take no official action except by authority of the State Grange or the Executive Committee.

Anonymous circulars are not more likely to permanently advance the interests of those who use them than are any other disreputable means. Indeed, it is probable that the Secretaries of most of the Granges have treated this as it deserved, and not as a matter emanating from the State Grange.

A GRANGE SECRETARY.

In Memoriam.

To the Worthy Master, officers, sisters and brothers of Snelling Grange, No. 105, P. of H.: We, the undersigned committee appointed to draft resolutions of respect to the memory of our worthy brother, Thomas Eagleson, late Secretary of Hopeton Grange, most respectfully submit the following preamble and resolutions:

WHEREAS, It has pleased the Infinite Father to call to a higher life one of our social circle, sending an angel messenger within our gates, taking from the Grange a worthy laborer, our brother, Thomas Eagleson, therefore be it

Resolved, That in the removal of Brother Eagleson, Snelling Grange, and the Grange at large, has lost a worthy laborer, the community an upright honest citizen and his family a devoted husband, a kind and loving father

Resolved, That we as sisters and brothers of Snelling Grange will ever cherish his memory; feeling assured that when one after another of our Order is summoned by the Worthy Master above, we shall meet our brother in that higher Grange where as immortals, separation and sorrow will come to us no more.

Resolved, That the bereaved wife, children and relatives of our ascended brother are assured of such sympathy as sisters and brothers alone can give, and mourn with them over the departed, and look for his solace only in the belief that our loss is his greater gain, and that we in good time when called by the Worthy Master above, shall again meet and greet the brother now removed from our midst.

Resolved, That these resolutions become a part of the records of Snelling Grange, and copies be forwarded to the wife and children of the deceased, and to the following sheets for publication: *Merced Tribune Pacific Rural Press* and *California Granger*.

W. LEE HAMLIN, Chairman of Committee.

Snelling, December 19, 1874.

THE GRANGEAN EDUCATOR.—One of the most important among the educational advantages to be derived from the Grange, is the new interest it gives to the people, and especially to the farmers, in relation to matters of public and political, but not partizan interest. One great cause of the present corruption in governmental affairs, is the lack of knowledge and interest in such matters manifested by the great mass of the people. Everything is left to the politicians—the people either don't vote at all, or vote merely as the politicians tell them. The Grange teaches its members to inquire into, understand and take an active interest in the science of government and true social economy. The working men from this time out propose that labor shall possess the dignity which intelligence gives, and which capitalists and politicians will respect, but which they cannot rule.

SANTA ROSA HARVEST FEAST.—We have glad tidings from the meeting of Santa Rosa Grange last Saturday. Quite a number were present from neighboring Granges. Bros. Cressey, Baxter and Marks, from this city, and Hill, from Sonoma, and others, gave well received speeches. Toasts, seasoned with good sense and humor, were plentiful, together with an excellent supply of material things. Visitors report Santa Rosa a good working Grange, with the best of cheer and good feeling in the Order.

SANTA CLARA GRANGE AND TEXT BOOKS.—Among the Granges that have taken the subject of text books in hand the Santa Clara Grange at a recent meeting passed resolution, disfavoring a change unless absolutely needed, and that where changes are to be made they be gradual and without cost to the people, and further that books of home production be preferred, merits and cost being equal.

NEW GRANGE DIRECTORY.—The annual election returns received and published by us up to this date number 103. If the Secretaries, in sending in further reports will please give the county in which they are located it will save us time in hunting up their whereabouts.

A Grange Suggested for Auburn.

The *Placer Argus*, of a late date says:—We see no reason why the farmers and fruit growers around Auburn should not organize a Grange. The Order has spread rapidly in all parts of the State, and while mistakes have been made in the administration of its affairs, there can be no question that it has been of immense benefit to the producing classes and incidentally, to the whole State. The antagonism that is popularly supposed to exist between the Grangers, and other classes of society, has a place more in fancy than in fact. The Grange aims to advance the interests of its members, by securing to them the advantages of cooperation in the production and marketing of their crops, and it also seeks to promote agriculture and commerce by reducing the cost of transporting and handling the various articles necessary to their business.

In addition to this, it promises them social and intellectual advantage by calling them together in its regular meetings, where the numerous questions of interest to the Order are discussed, and where the labors of rural life are pleasantly diversified by cultivating the finer qualities of the mind. However demagogues may have attempted to sway the Grange to the support of their own ambitious schemes, it is not a political organization, and while its principles are such as to influence every man to be careful whom he votes for, it leaves him free to affiliate with whatever party he chooses.

In a section of country like this where the productions of the earth are so various, an organization that will bring our farmers and fruit-growers together once a week, to discuss the best methods of cultivation and that will enable them to co-operate in the disposal of their productions, could not but be of benefit. The necessary steps to organize a Grange are simple, and as but nine men and four women are necessary, it ought not to be much of a job to get enough together to set in motion. A blank application has been left at this office, and if enough of our readers feel an interest in the matter to hand in their names, we will see that it is attended to.

Election of Officers.

LIST of officers elect of Los Nietos Grange, No. 44, P. of H.: E. B. Grandin, M.; O. P. Passens, O.; John Condra, L.; Thomas Isbell, S.; M. B. Condit, A. S.; E. Stockton, C.; A. S. Rayland, T.; W. S. Reavis, Sec'y; Robt. Tabor, G. K.; Mrs. L. E. Reavis, Ceres; Miss M. Stockton, Pomona; Miss Jane Passens, Flora; Mrs. M. Coudit, L. A. S.

NEW RIVER GRANGE.—W. Newton, M.; W. H. Settle, O.; T. J. Kerns, L.; S. T. Corum, S.; M. J. McGonch, A. S.; D. S. Wardlow, C.; D. M. Harlow, T.; S. G. Baker, Sec'y; N. H. Price, G. K.; Miss F. F. Houghton, Ceres; Mrs. Greaves, Pomona; Miss E. J. Sackett, Flora; Mrs. Meeks.

RUSTIC GRANGE, No. 83.—L. P. Whitman, M.; Fred. Brownell, O.; George W. Francis, L.; Mrs. A. V. Visser, C.; M. A. Speaker, S.; William Allen, A. S.; F. S. Fowland, T.; O. F. Atwood, Sec'y; L. W. Rowland, G. K.; Mrs. Eliza Allen, Ceres; Miss Dora Molloy, Pomona; Miss P. A. Sperry, Flora; Miss Mat-tie Buchanan, L. A. S.

NAPA GRANGE, No. 2, Dec. 26.—J. B. Saul, M.; W. H. Nash, O.; J. W. Ward, L.; H. Goodrich, S.; C. H. A. Ward, A. S.; T. B. McClure, C.; J. M. Mansfield, T.; H. W. Haskell, Sec'y; Chas. Dell, G. K.; Miss Ida Goodrich, Ceres; Miss L. McClure, Pomona; Miss Rosa Saul, Flora; Miss Rhoda Nash, L. A. S.

FRANKLIN GRANGE, No. 174.—Amos Adams, M.; J. M. Stephenson, O.; W. S. Runyon, L.; J. W. Moore, C.; Isaac F. Freeman, T.; P. R. Beckley, Sec'y; Thomas Anderson, G. K.; Mrs. A. E. Freeman, Ceres; Miss Cassie Maupin, Pomona; Miss Belle Johnston, Flora; Mrs. W. Daniels, L. A. S.

ANTELOPE GRANGE, COLUSA COUNTY.—The following officers were elected for next year: John Sites, M.; Wm. Rosenberger, O.; R. A. Clark, L.; A. A. Shearin, S.; John Taylor, A. S.; M. H. Shearin, C.; H. A. Logan, T.; P. Peterson, Sec'y; John Rosenberger, G. K.; Mrs. A. A. Shearin, Ceres; Mrs. R. A. Clark, Pomona; Mrs. M. H. Shearin, Flora; Miss Alice Cleg-horn, L. A. S.

ST. HELENA GRANGE, No. 30.—John Lewelling, M.; J. W. Sayward, O.; G. B. Crane, L.; C. Wheeler, S.; J. C. Weinberger, A. S.; D. Edwards, C.; Chas. A. Storey, Sec'y; Wm. Peterson, T.; John Howell, G. K.; Mrs. H. M. Allen, Ceres; Mrs. G. B. Crane, Pomona; Miss Kate Edwards, Flora; Mrs. H. A. Pellet, L. A. S.

CLARKSVILLE GRANGE, No. 149.—Robert T. Mills, M.; Peter R. Willot, O.; Samuel Kyburz, L.; Charles Chapman, S.; Z. F. York, A. S.; Isaac N. Wilson, C.; Charles W. Peter, T.; Isaac Malby, Sec'y; E. L. Wilson, G. K.; Elizabeth Mills, Ceres; Rebecca S. Keyburz, Pomona; Mary E. Porter, Flora; Louisa M. Willot, L. A. S.

THE NEW HOMESTEAD PLAN.—The crowded state of our columns this week necessarily delays the publication of several articles which we would like to have given his week. Among these is the "California Letter," from the Secretary of the State Grange Committee on the "New Homestead Plan." It will appear in our next.

Business Arm of the Order.

During the past week business has accumulated rapidly in the office of the State Grange Purchasing Agent. Among other orders filled were six from Thornton for all kinds of articles from sawmills down to a pair of stoga boots; four orders from Lebanon, mostly groceries; also orders from New Castle, Henry county Gibson county, Muncie, Dayton, Alpine, Edwardsport, Zion's Mills, Fontaintown, Cicero, Franklin, Sunman, Spencer, Columbia City, Marion, Yevay, Redkey, Millersburg, Tipton, Portland, Salem, Frankfort, etc.

Many of these orders were for boots and shoes, some for groceries others for stoves, some for sewing machines, etc.

Orders for twenty-eight sewing machines have been filled since December 2d—these have been sent to all parts of the State.

Two car-loads of corn were shipped a few days ago to Massachusetts, and orders are on file for other car-loads. There was such a saving to the Patrons in Massachusetts, that this method of buying corn will be followed up by the Massachusetts brethren. The State Agent has so far been compelled to make his purchase of corn of outside parties instead of Granges, none of the latter being yet prepared to furnish in quantities on short notice. It is suggested that if a number of Granges in a neighborhood buy a steam corn-sheller and thus prepare for filling orders, informing the State Agent when and where they have corn to sell, it will greatly aid the State Agent in supplying those who make orders on him. The suggestion is certainly a good one and deserves careful consideration, especially when it is remembered that thirteen cents a bushel is charged for elevator services, shelling and handling. This per cent. might as well be saved as not.

Two car-loads of flour were shipped to Massachusetts Patrons a few days ago, at a saving to them of three dollars a barrel. This opened the eyes of Eastern farmers, and the Order will receive large accessions of members through the influence of this fact alone. Three hundred dollars saved on a car-load of flour will soon call attention to Grangerism in the East.

Those wishing to order goods, need not first write to know if the State Agent can get what is wanted. Send for what you want and it will be purchased and shipped to you.

HOOSIER PATRON.

OUR aim in behalf of the Patrons of Husbandry is to do whatever we can consistently with our duty, to society in general, to advance the interests of the Grange and each individual member thereof. The RURAL PRESS aims to win the respect and secure the patronage of the Order by making itself essentially necessary to the convenience and needs thereof, and to every tiller of the soil also, whether in or out of the Order.

HOME MATTERS IN THE GRANGE.—Many of the Grangers are devoting their meetings to the profitable discussion of matters closely connected with their home affairs. In well ordered assemblages, there is certain good to come from such interchange of thought. It makes of those bodies social and agricultural clubs—schools of improvement, and lends a charm to the proceedings, which will attract to the order the elements of society.

Agricultural Items.

FOUR CROPS OF PEARS IN ONE SEASON.—The *Foothill Tidings* of a recent date is responsible for the following: Four crops of pears from one tree in one season is one of those stories for which California is famous, but which people East seldom believe. Any one who will take the pains to walk out to near the end of Neal street in this town can satisfy himself that such things do happen. Mr. Barker has a winter Nelis pear tree in his orchard that has blossomed four separate and distinct times this year and now has upon it four crops of pears. Only the first and second crops are perfect, the others being small and immature.

OF THE 14 000 acres of arable land comprising Sherman island, it is estimated that 10,000 acres are already sown to wheat and barley. Several hundred acres of volunteer grain stand six inches high.

THERE are no new developments regarding the potato rot in Sonoma county. Nearly all not dug before the late rains are ruined. About 50,000 sacks are stored in Petaluma.

SETH BENNETT, farmer, on Dry Creek, Sonoma county, gathered from one vine of Mission grapes 100 pounds of grapes, which, if made into wine would have produced eight gallons.

FRESH butter is arriving at Petaluma in considerable quantities, and is selling from 43 to 45 cents per pound, or 6 cents higher than last year.

MESQUITE grass is being sown extensively in Lake and Mendocino counties. It is said to be fine for hay, and rich green feed. Neither frost, wet, nor ordinary dry weather affects it.

WHEN all her land is properly reclaimed, Sutter county will have added fully one half more to the amount of land now under cultivation.

SANTA CLARA county is sending more grain East this year than ever before.

THE capacity of the Consolidated Tobacco factory at Gilroy is about to be doubled.

SALT LAKE boasts of 200 new houses this year.



Little Feet.

Two little feet, so small that both may nestle
In one caressing hand—
Two tender feet upon the untrodden border
Of life's mysterious land.

Dimpled and soft, and plump as peach-tree blossoms,
In April's fragrant days,
How can they walk among the briery tangles,
Edging the world's rough ways?

These rose white feet along the doubtful future
Must bear a woman's load;
Alas! since woman has the heaviest burden,
And walks the harder road.

Love, for awhile, will make the path before them
All dainty, smooth and fair—
Will cull away the brambles, letting only
The roses blossom there.

But when the mother's watchful eyes are shrouded
Away from sight of men,
And these dear feet are left without her guiding,
Who shall direct them then?

How will they be allured, betrayed, deluded,
Poor little-untaught feet?
Into what dreary mazes will they wander,
What dangers will they meet?

Will they go stumbling blindly in the darkness
Of sorrow's fearful shades?
Or find the upland slopes of peace and beauty,
Whose sunlight never fades?

Will they go toiling up ambition's summit,
The common world above?
Or in some nameless vale, securely sheltered,
Walk side by side with love?

Some feet there be which walk life's track unwounded,
Which find but pleasant ways;
Some hearts there be to which this life is only
A round of happy days.

But they are few. Far more there are who wander
Without a hope or friend—
Who find their journey full of pains and losses,
And long to reach the end.

How shall it be with her, the tender stranger,
Fair-faced and gentle eyed,
Before whose untaught feet the world's rude highway
Stretches so fair and wide?

Ah! who may read the future! For our darling
We crave all blessings sweet,
And pray that He who feeds the crying ravens
Will guide the baby's feet.

For Dear Life.

A New Year's Night Ride.

New Year's eve some thirty years ago—and we were keeping it right merrily at the old manor-house of Stor Aswan, the home of my childhood, as it had been that of my forefathers for many generations. The pleasantest spot in the world, I thought, and still think, that quaint Norwegian homestead, with its buff walls and birchbark roof, which succeeding summers had rendered verdant with an evergreen thatch of moss and lichens, just now, however, this was not visible, for snow lay thickly upon it, as it had lain for weeks past, not only there, but upon all the country round.

It was the hardest winter there had been for fifty years—so the old folks said—and they foretold its continuance some weeks longer.

All this, however, did not affect any of our party, who were all Norse men and maidens born, used to the cold, full of health and spirits. I, Ella Bleorn, daughter of the house, was the wildest of that mad circle who had assembled at Stor Aswan that Christmas-tide to do honor to my betrothal to Eric Jarl, the lover of my youth, ere long to be my husband. As soon as the birch trees put forth their first green tassels, in the early spring-time, I was to leave my old home for a new one; so now, surrounded by kinsfolk and neighbors, we were keeping this last anniversary of my spinsterhood in gaily fashion.

So in dancing, feasting and merry-making the week sped, until a few hours more would see us all scattered in various directions, to meet again we knew not when or where. For the last day, therefore, we had reserved the chief pleasure, the crowning point of all our enjoyment—a sleighing and skating party to Stor Aswan, a mountain-encircled lake some ten miles further north, the same from which our homestead derived its quaint Runic name. This was to be our vail or greeting to the New Year—our welcome to the incoming guest.

Brightly dawned the eventful morning, clear as one's heart could desire. Blue was the sky as sapphire, whilst the freshly fallen snow sparkled and shone as though strewn with living gems. All nature seemed rejoicing like ourselves at the advent of another year, and one already so full of promise. Without, the sleigh bells tinkled and chimed merrily, making the frosty air ring again as the gayly caparisoned horses pawed and shook their heads, impatient as their owner to be off. At length we started, Eric and I as hosts being the last of the party; for of course he was my charioteer.

Oh that day I shall not speak, we were all young and in wild spirits, and some of us in love. I, blue-eyed, golden-haired, Ella Bleorn, was the acknowledged belle and queen of the party, and Eric, my lover, the most stalwart youth of the country-side. But all things, even

the pleasantest, must come to an end. So when the shades of evening began to fall heavily, merging earth, sky and water into one grey leaden cloud, we began our journey homeward. Tired out with my exertion, as soon as we started I nestled down amongst the soft furs in the sleigh, and, rocked by its easy motion, soon fell fast asleep. How long I slept I knew not, but when I awoke it was snowing fast, and the darkness so intense that we could not see a hand's breadth before us. I called to Eric, who was driving, and asked if all was well. To which the answer came back, half deadened by the thick atmosphere, "All well, but for God's sake try to keep awake."

So I aroused myself and sat up, knowing that sleep in that bitter night air might mean death. Of any other fear I had no thought, when suddenly I heard another sound come up with the wind—a long-drawn hollow moan. Twice or thrice it came at intervals, this weird noise, each time nearer and more distinct. The third time the ponies also heard it, for they sprang forward with an impetus that almost shook me out of the carriage. Frightened, I said to Eric, "What, oh! what is that?" And the answer came back, short and stern, "The Salten wolves!"

Then began that terrible chase "for dear life" which, though we should live for twice our allotted time, we could never forget. Swiftly we sped along, our steeds impelled by a terror as great as our own, until they appeared almost to fly. Breathlessly we hearkened, hoping yet to leave our enemy behind. But no, they traveled with us, gained upon us, nearer and yet nearer—their cry growing perceptibly from an uncertain vague voice of the darkness into the unmistakably wolf-like note. We knew from the direction from whence it came that they were tracking us by scent; so now our last poor chance lay in the darkness of the night and our nearness to Stor Aswan. Eric still held the reins, and I cowered down in the bottom of the sleigh, and prayed more earnestly than I had ever yet done in my life "for an increase of the snow-drift, or onght, even a miracle, if it might only save us."

On and on, for a time that seemed interminable, yet might in truth have been but a few moments. Then the storm ceased, the moon emerged from her shelter, and we saw half a mile in our rear a dark line coming swiftly and steadily down upon us. In the middle of a white plain, with no nook or corner visible wherein we could take refuge, and still nearer a league from home, our case looked hopeless enough. So our pursuers seemed to think as they caught sight of us for the first time, and lifting their black muzzles from the ground gave vent to a howl of savage exultation. I could have screamed, too, when I heard it, for fright was driving me half wild; it was so utterly horrible to perish thus. But a glance at Eric, so calm and steadfast, gave me new courage. I felt that, come what might, we should at least die together.

Faster and faster we flew, like hunted animals, death behind us coming on apace—a few yards more and he would claim us for his own. Already I could hear the rapid breathing of our foes see their fierce eyes and now white teeth, glittering and gleaming in the moonlight. Prompted by Eric, I threw out the bearskin rug which protected me from the cold. For a moment they paused, smelt at it, then on with fresh fury after their old prey. One by one cushions, wraps, all wert over to the hungry pack, each gaining us an instant's precious delay. As the last fell from my hand the foremost wolf bounded forward, just missing my arm, while his strong, cruel jaws met with a painfully audible snap.

Then Eric turned and looked at me—a long, loving glance—and began knotting the reins to the iron side of the driving-seat. Instinctively divining his purpose of giving his life to save mine, I sprang forward and, clinging to him frantically, I whispered,

"Dearest, remember, we stand or fall together!"

A sudden thought, justified by our dire extremity, flashed through my brain—it was at best a forlorn hope. Quickly I bent over Eric, snatched the hunting-knife from his belt, and cut loose the nearest pony. With an almost human cry of pain the poor animal galloped off with the ravenous pack after it. A few strides only and it was surrounded, overpowered, down; and the last sounds we heard ere the welcome lights of Stor Aswan came in sight were our baffled enemies growling and fighting over the cruel sacrifice, but necessity knows no law, and by it we were saved.

In after years, as we sat round the fire at New Year's eve, with the storm beating wildly as now against the casement, and the wintry twilight closing in, our children would ask to hear, "once more," the oft-told tale of the "Salten wolves," or our fight "for dear life."

STRONG DRINK.—The habit of taking strong drink is like a river. An occasional glass is of little account, men say, and they take it. Then they drink oftener. The river grows broader and swifter, but they do not think of this. They drink yet oftener and after a while the little stream of habit has grown to be a wide, roaring torrent, and a little further on is death.

A TOUR OF THE WORLD.—Early next month Rev. Mr. Jewett and young Horace Hawes leave for a year's absence. They are to sail round the world, only stopping at the more important places. Horace is one of the prospective rich boys of San Francisco. His training is evidently in good hands.

Talking, Reading, Writing.

When mothers teach their children to talk, they should require them to speak distinctly. When reading, they should speak all their words clearly, and when writing every word should be written plainly. How very few pay any special attention to these important points! What can be more interesting in conversation than to listen to a clear, well-modulated voice, expressing good sense through a kindly, well-disciplined mind? or, to listen to a really good reader, whether from the Bible, or the Pilgrim's Progress, or Æsop's Fables, if he read or speak with exactly the right accent, and in the right tone and time, it is at least a good substitute for classical music. Why are not all intelligent persons educated to read aloud? It would be a real accomplishment; far better than a knowledge of all the common games, dancing, etc. Then as to writing. Oh, the luxury of clear, round, handsome penmanship! We do not care for flourishes; indeed, they have no business in business letters; they should only be indulged in when "practicing," or when learning to write. If not vulgar, it is egotistical to introduce much flourishing in letter-writing, book-keeping or anywhere else. A clear, plain round hand is always best, and the one who writes it secures therein and thereby, excellent mental discipline. By proper care, and by taking necessary pains to have good ink—not pale-blue, watery stuff, which crucifies one's eyes to read—good pens and good paper, the desired end will be attained.

Then, if a correspondent desires prompt attention, he must give his exact address in full, with post-office, county, and State, leaving nothing to be guessed at, and inclosing the requisite stamp for a reply, when on his own business; and then having properly directed and posted his letter, he may reasonably hope to receive the answer he wants. Why can not everybody learn to talk distinctly, to speak clearly, and to write plainly.

WHY THE TELEGRAPH WIRES WOULDN'T WORK.—Lately, while the operators in the Western Union telegraph office at the Central wharf, in Buffalo, were busily engaged transmitting gold and stock quotations from the office to the different banks in that city, the instruments suddenly, and without warning or apparent cause, refused to work. Consternation seized all the operators, and they simultaneously gave up the explanation of this break of the lightning. The office was searched; no breaks or crossings of the wires could be found. The entire force there were nonplussed, dismayed, and at a loss to understand the wherefore. The gold and stock quotations had to be carried around to the banks, for the instrument sternly refused to utter a single click. The wires were followed along their route through the city by the disheartened and now frantic telegraphers. On top of a tall house in the lower part of the city, across which two of the wires ran, was discovered a hoop skirt suspended from both of them. A remark tinged with more force than elegance was heard, and the obnoxious article of feminine apparel which had restored the equilibrium between the positive and the negative wire was dragged down and thrown over into the street. Gold and stock quotations were again transmitted as formerly. We have heard it said that there is always a piece of crinoline at the bottom of every trouble into which a man gets. So it seems.

PERHAPS love is never so potent as when it seizes upon those who have passed their first youth, or even those who have passed the prime of life. The choice made is then likely to be thoroughly suited to the nature of the man; and any intelligent gifts on the part of the woman are likely to be more attractive to a man of this age than to a young person. Besides, there is a feeling that, as life is not likely to be very long, this last love is the last thing to be clung to, and that after it, should it be lost, all will be desolation.

EXTERNAL SHOW.—How often do we try, and persevere in trying, to make a sort of neat show of outer good qualities, without anything within to correspond, just like children who plant blossoms without any roots in the ground to make a pretty show for the hour? We find fault in our lives and we cut off the weed, but we do not root it up; we find something wanting in ourselves, and we supply it, not by sowing the divine seed of heavenly principle, but by copying the deeds that the principle ought to produce.

LADY WHISTLERS.—The young lady who whistles defends herself in the *Christian at Work*, as follows: "Let no one deny me the privilege of whistling when sitting alone at my sewing machine. If I am compelled to walk the street alone at night, I never fear danger at an approaching footstep if it is accompanied with the music of whistling. I do not believe a person can whistle who is intent on evil."

SIGHT AND OBSERVATION.—The difference between sight and observation is the perpetual distinction which turns up among men, and is at the root of all growth in the lower or the higher wisdom. Many go through life as the figure of a ship goes round the world, and end the voyage with no gain from it, but that they return more battered and weatherbeaten.

DR. RUTH is pronounced the handsomest man in the navy, and yet all the belles are Ruth-less.—*Graphic*.

WOMEN FOR SCHOOL BOARDS.—The profession of teaching is fast passing into the hands of women. In all the Eastern cities the female teachers are as four to one of the other sex, and of late the former have been carrying off a portion of the few prizes in that department of labor. The most positive advance however has been made in Boston, where both parties have joined in nominating some eminent women to the School Board of that city. Two women were elected last year, but legal obstacles were discovered in the way of their performing the duties of the office, which have since been removed. Among those nominated was Lucretia P. Hale, sister of Edward Everett Hale, a teacher of experience and a popular writer. Miss Abby W. May is nominated by both Democrats and Republicans, and no organized opposition has yet shown itself to her election. Lucia M. Peabody is also the nominee of both parties and her election is considered certain. Seven women in all are nominated by Republicans and three by Democrats.

FORCE OF EXAMPLE.—The poor woman, who, with a scanty wardrobe, is ever neat and clean in her person, amidst various and trying duties—is patient, gentle and affectionate in her domestic relations—with small funds is economical and judicious in her household management, as presenting every day a practical exposition of some of the best lessons in life, may be a greater benefactress of her kind than the woman of fortune, though she scatter a tithe of a large fortune in alms. The poor man whose regularity and sobriety of conduct co-operate with such a woman, and show his fellow-workmen or townsmen what industry, temperance, manly tenderness and superiority to low and sensual temptation can effect in endearing a home, which like the green spot that the traveler finds in the desert, is bright even amid all the gloom of poverty, and sweet even amid all the surrounding bitterness—such a man does good as well as the most eloquent writer who ever wrote.

THE CONSUMPTION OF COFFEE.—Those people who go about lecturing as to death in the cup—of coffee—don't seem to be of much consequence in this country. The annual consumption per person of this delicious or diabolical stimulant amounts to seven pounds. It is only phlegmatic Holland that goes beyond us; each sleepy child of the dykes is credited with ten pounds a year. England brings up the line with one pound and one-eighth to each person; she fills up the account in tea, however. Statistics certainly do not go to prove that coffee is a stupefying beverage, for California, which is emphatically a State of energetic people, takes more coffee than any other. Twenty pounds and a half to each unit of the population is the amount required for the modest quenchers.—*New York Tribune*.

OVER-WORKED WOMEN.—I often see this at the head of pieces in your valuable paper. Not long since I saw, in looking over the *RURAL*, a piece headed in this way. The lady writer thought she had found an easier way for over-worked women to get along with their labor. As I feel myself one among that class, the lady in question would confer a great favor on me by simply writing a small chapter on that subject. I have three small children, the oldest one not yet four years old. It is a very difficult matter for me to study out a way to get things done in the proper time and manner, and if any know of anything more about general housework than I do, I would like to hear from them.—*Ex*.

THE "COMING" GATE.—We have been shown a design for an upholstered front gate, which seems destined to become very popular. The foot board is cushioned, and there is a warm soap stone on each side; the inside step being adjustable so that a short girl can bring her lip to the line of any given moustache without trouble. If the gate is occupied later than 10:30 p. m., an iron hand extends from one gate post, takes the young man by the left ear, turns him around, and he is at once started toward home by a steel-foot. The girl can, if she likes, set this part at a later hour than 10:30.—*Rome Sentinel*.

AN ERRING HUSBAND.—An erring husband who had exhausted all explanations for late hours, and had no apology ready, recently slipped into the house about one o'clock very softly, denuded himself gently, and began rocking the cradle by the bedside, as if he had been awakened out of a sound sleep by infantile cries. He had rocked away for five minutes, when Mary Jane, who had silently observed the whole maneuver, said, "come to bed, you fool, you! the baby ain't there."

A NEW PARLOR GAME.—Here is a new game very popular in the country just now:—"A young man takes a chestnut, cuts round the hull with a sharp knife, and then takes one-half of the chestnut in his mouth, and a pretty girl the other half in her mouth, and the hull comes off." There may be quicker methods of hulling chestnuts, but none more soothing to the feelings of the young folks; and they don't get made and dance wildly around if the hull don't come off for five minutes or so. Country games are not to be despised after all.

LADIES' HATS.—The *New York Mail* says that "the average female is just now crazy over hats. If she has not got a soft felt, with a rakish crown and a thievish looking brim, she is crazy to get one; and if she has got one she is mad because she did not get the other pattern."

DOG HAM.—T. T. Cooper, late agent for the Chamber of Commerce at Calcutta, says in his "Travels of a Pioneer of Commerce," "While waiting for the return of the coolie, Philip and myself breakfasted at a fine tea shop, the proprietor of which, thinking his customer was a Mandarin, prepared an elaborate meal, consisting of a number of dishes, and among others, fried dog ham! I proceeded with stoical fortitude to taste doggie. One taste led to another, and resulted in a verdict for reason; for in summing up, after a hearty meal, I pronounced the dog ham to be delicious in flavor, well smoked, tender and juicy. The landlord having heard that the Yangjen, as the test had discovered me to be, had conquered his prejudice, brought in the ham to show me. It was small—not much bigger than the leg of a good sized sucking pig; the flesh was dark, and the hair had been carefully removed, while the paw had been left as a stamp of its genuineness, as the proprietor remarked. Dog hams are justly considered a great delicacy in China, and as such bring a very high price, costing as much as five taels per pound. They are chiefly cured in the province of Hoonan, where dogs of a peculiar breed are fattened for the purpose.

"WHAT AM I GOOD FOR?"—Remember the parable of the talents—one had ten, another five, another two and another one. So it is among men to-day. Our "talents" may be compared with money, with education, acquired art, natural gifts, or with opportunity to do good. If we use our one, two, or five talents to the best of our ability, we shall be accepted, and earn the approval of Him who judges righteously. The comforting words, "Well done, thou good and faithful servant," will be set opposite our name in the great book, whose records give a complete history of each individual life. Are we so living to-day that we can ask or hope for God's blessing on our course? This is our right, our privilege, our duty. We may count our passing moments as unimportant, as they may appear to be uneventful. But "time flies," and we must fly to keep up, or be left behind; each second, like the tick of a clock, makes its record. We do not realize this until we come into middle life or old age, when, if our time has been frittered away, we are punished in a "hell" of regrets, for "lost time, lost opportunity."—*Phrenological Journal.*

NO ROSES WITHOUT THORNS.—Things are pretty well balanced in this world, so far as taking comfort goes; and we begin to believe that high and low, all have their tribulations. Fishes are hooked, worms are trodden on, birds are fired at. Worry is everywhere. Poor men's wives worry because their bread won't rise, or the stove won't draw, or the clothes line breaks, or the milk burns, or the pane of glass is mended with putty, or they can't afford to hire help. Rich men's wives worry because the preserve dish is not of the latest pattern, or because somebody finds out how a party dress is trimmed before the party happens, or because some grandee's wife overlooks them, or because their help sauces 'em, breaks up tea sets, spoils dinners, gets drunk, and cuts up sheets into underclothes. Causes vary, but worry averages the same. The scale of miles is different on different maps, but places remain just so far apart, and so do humanity and content.

ABOUT DOLLS.—Dolls are very prolific subjects now-a-days. Modern little girls do not care for one, they want a whole family. Dolls, dolls' babies, dolls' nurses, dolls' papas, mammas, uncles, aunts, brothers and sisters, cousins and a number of acquaintances. The last individual of the doll tribe that has been introduced is the family doctor, and they will have the clergyman next year. The modern little doll must not only have her family of dolls but her baby house, her cook-kitchen, her stove and laundry, with all the necessary appurtenances, her carriage to take the dolls an airing, and a wardrobe for each, of the most elaborate description. Even the one item of jewelry is no small affair, for the earrings are perpetually getting lost, and the fashion of the sets changing. And what well-bred doll wants to appear in society with an imperfect or old-fashioned set of jewelry?

A HOPEFUL LADY.—A couple was recently married in Otisfield, Me., who had been engaged twenty years, the man in the meantime marrying and raising a family, still keeping up the correspondence with his old lady-love and occasionally visiting her, she keeping a faithful watch, hoping against hope, and never giving up her expectations.

HIGHLY CHARITABLE.—Some young men in Vienna have formed a matrimonial league. Every member of the league must be the son of a man of property, and must pledge himself to marry a poor girl, one who has neither dowry nor expectations, and must forfeit 10,000 florins if he violates his pledge.

TOUCHING.—"Call me soon, Georgie," was the touching exclamation of a German woman of more than four score years to her little dead great grandson, as his corpse was taken out for burial at Pittsfield.

A WESTERN paper chronicles a marriage in this suggestive style: "The couple resolved themselves into a committee of two with power to add to their number."

A JUVENILE vigilance committee has been organized at Truckee, for the purpose of banishing all hoodlums.

YOUNG FOLKS' COLUMN.

One and One.

Two little girls are better than one,
Two little boys can double the fun,
Two little birds can build a fine nest,
Two little arms can love mother best,
Two little ponies must go to a span,
Two little pockets has my little man,
Two little eyes to open and close,
Two little ears and one little nose,
Two little elbows, dimpled and sweet,
Two little shoes, on two little feet,
Two little lips and one little chin,
Two little cheeks with a rose shut in;
Two little shoulders, chubby and strong,
Two little legs running all day long;
Two little prayers does my darling say,
Twice does he kneel by my side each day—
Two little folded hands, soft and brown,
Two little eyelids cast meekly down—
And two little angels guard him in bed,
"One at the foot and one at the head."

—St. Nicholas.

The Sculptor Boy.

Frank Lawson was the son of a Welsh miner who lost his life in the beginning of the present century by an accident in a mine. The lad's mother had died before that, and now the forlorn little orphan took the situation of shepherd-boy for his support. One day while watching his sheep, with two other children to keep him company, he carved with his pocket-knife from a block of wood such a capital likeness of his master's dog, that it soon became the wonder of the country-side.

This was Lawson's first attempt at sculpture. Afterwards he carved a figure of a fine horse so admirably, that the animal's owner, who was a rich gentleman, supplied the boy sculptor with the means of studying his favorite art in Liverpool.

Subsequently the young artist was able to spend three years in Italy, where his works achieved ever increasing fame. Returning to England he executed a number of fine statues, and then, going back to Italy, ended his days in the city of Rome.

Like some of the greatest of the world's great men, the former Welsh shepherd-boy rose to fame and competence by earnest and painstaking devotion to the talent God had given him, and a brave heart to bear obscurity, disappointment and adversity until his industry and good character brought him friends and opportunities. His story is worth the study of every boy who believes that he has it in himself to become a man of mark.—*Heath and Home.*

The Baby Monkey.

He was a little bit of a fellow, about as large as a kitten, and had a tail as long as his mother's, but he looked very old in the face. When I first went to see him, the monkey was holding him in her arms, but presently he crawled to the floor, then out through the bars; and upon me. I thought strange that the mother was not afraid of losing it; but when I moved my hand to stroke it, back went the little monkey, swift as a dart into his mother's arms.

Pretty soon he crawled away again, and then I saw that the mother monkey had hold of the tip of his tail with her fingers, and as the little one crawled away from her she let him go as far as she could reach, but never let go of his tail; and when anybody moved a hand to touch him, she pulled him back into the cage. She never seemed to relax this hold by day or by night till the little fellow was two months old. Then she let him go.

But her mother instincts were very marked even then. The cage contained a "happy family" of dogs, cats, monkeys and guinea pigs, sleeping in one box together; so when the little monkey crept out of his mother's arms she would reach down into the box and take up a little puppy, or kitten, or guinea pig, and nurse and fondle it just as though it were her own.—*Ex.*

A BOY OF PLUCK.—When Dr. Carey, the celebrated missionary, was a boy, he tried one day to climb a tree. But his foot slipped and he fell to the ground, breaking his leg by the fall. This accident confined him to his bed many weeks, and caused him much suffering.

When the broken limb was healed, what do you think he did? Resolve never to climb a tree again? Not he. He was too plucky for that. On the contrary, the first thing he did after his recovery was to go and climb that tree. Now, while I do not recommend boys to climb trees unless duty requires them to do it, I do advise them to imitate young Carey's spirit of perseverance. He had a soul that would not be conquered by difficulties, and that spirit, when devoted to the missionary work, made him successful. Imitate that spirit, boys. When a duty is to be done never give up!—*S. S. Advocate.*

A TEACHER, wishing to improve the occasion said to the boys at the conclusion of a strawberry festival.

"Have you enjoyed these berries to-day?"

"Yes sir," came from all sides, with unmistakable heartiness. "Well, children, if you had seen these berries growing in my garden, and had slipped in through the gate without my leave, and picked them from the vines, would they have tasted as good as now?"

"No, sir," was the prompt reply.

"Why not?"

"Because," said a wide-awake boy, then we shouldn't have had sugar and cream with 'em."

GOOD HEALTH.

Washing Out the Stomach.

Dr. C. Ewald, of Berlin, describes a method of washing out the stomach, which, on account of its great simplicity seems likely to make the topical treatment of diseases of the stomach, especially in cases of poisoning, much more common: "A piece of ordinary india rubber tubing, such as is used for gas-lamps, about six feet long, is used. One end is rounded with scissors, and, if necessary, two holes are cut at a short distance from the end. This tube possesses quite sufficient rigidity to be passed without difficulty into the stomach. To the outer end a funnel is fitted, into which can be poured either water or a solution of soda, etc., according to circumstances. If the contents of the stomach are to be removed the outer end of the tube must be sunk to the level of the pube, or even lower; then the patient must make a short but forcible contraction of the abdominal walls. By this means the tube is filled to its highest point with the contents of the stomach, and becomes a siphon; the liquid continuing to flow until there is no more, or till the tube is stopped.

This last seldom occurs, if the tube be of a moderate calibre. Should it, however, happen, or the abdominal pressure be insufficient to fill the tube in the first instance, or the patient be insensible, or any similar difficulty arise, it can, in general, be readily overcome by fitting a common clyster-syringe to the end of the tube, one stroke from the piston of which is generally sufficient to remove the obstacle.

THE HOURLY DEATH RATE.—Dr. Lawson, an English physician, has recently published some curious observations regarding the time of the day when the greatest and least number of deaths occur. He finds, from the study of the statistics of several hospitals, asylums, and other institutions, that deaths from chronic diseases are most numerous between the hours of eight and ten in the morning, and fewest between like hours in the evening. Acute deaths from continued fevers and pneumonia take place in the greatest ratio either in the early morning, when the powers of life are at their lowest, or in the afternoon, when acute disease is most active. The occurrence of these definite daily variations in the hourly death rate is shown, in the case of chronic diseases, to be dependent on recurring variations in the energies of organic life; and in the case of acute diseases, the cause is ascribed either to the existence of a well marked daily extreme of bodily depression, or a daily maximum of intensity of acute disease.

SIMPLE DYSPEPSIA REMEDIES.—Dyspepsia arises from a great variety of causes, and different persons are relieved by different remedies, according to the nature of the disease and condition of the stomach. We know of a lady who has derived great benefit from drinking a tumbler of sweet milk—the richer and fresher the better, whenever a burning sensation is experienced in the stomach. An elderly gentleman of our acquaintance, who was afflicted for many years with great distress after eating, has effected a cure by mixing a tablespoonful of wheat bran in half a tumbler of water, and drinking it half an hour after his meals. It is necessary to stir quickly and drink immediately, or the bran will adhere to the glass and become pasty. Coffee and tobacco are probably the worst substances persons troubled with dyspepsia are in the habit of using, and should be avoided. Regular eating of nourishing plain food, and the use of some simple remedies like the above, will effect in most cases quicker cures than medicine.—*Scientific American.*

NELATON'S TREATMENT OF BOILS.—A French medical journal says that Nelaton for more than 20 years prescribed the use of alcohol for the prevention of these smaller abscesses which are so common among young people and which so seriously impair the beauty of the face. It appears that this treatment is now extending. In speaking of boils and outward abscesses, and other inflammations of the epidermis and of the derma, he observes that as soon as the characteristic circular redness appears on any part of the body, whatever may be its size, with a point rising in the middle, making it a grayish white, a thimbleful of camphorated alcohol should be poured into a saucer; the palm of the hand should be wetted with it and this should be rubbed with gentle friction over the affected place. The fingers should be again steeped, and the friction continued as often as eight or ten times every half minute. The place should be well dried and before covering it up a little camphorated olive oil should be applied to prevent the evaporation of the fluid.

RED WALL PAPER DANGERS.—To the dangers due to the arsenic entering into the pigment used in staining green wall paper, must now be added others produced by coralline dye employed in the coloring of red hangings. It appears that the poisonous symptoms (extending to acute eruptions of the body, when under garments thus dyed are worn, and to eye diseases in papered rooms) are owing not directly to the coralline, since recent experiments have proved the substance to be harmless, but to an arsenical mordant used to fix it. This last acts as a poison, both topically upon the skin, through contact with garments, and also by its dust and vapors, disengaged from the stuffs which it colors.

DOMESTIC ECONOMY.

How to Cook Turkeys and Chickens.

ROAST TURKEY.—A turkey should be well singed and cleaned of pin feathers; then draw the inwards. Be sure you take everything out that is inside. Dip the turkey into cold water; clean the gizzard, liver, heart and neck; let all soak one hour if you have time. Wash all very clean; wipe the turkey very dry inside and out. Make a dressing of two cupfuls of bread crumbs, one teaspoonful of salt, two large spoonfuls of sweet marjoram, two spoonfuls of butter, one egg and mix them well together. Cut the skin of the turkey in the back part of the neck, that the breast may look plump; fill the breast with the force-meat and sew it up. If you have any more forcemeat than is required for the breast, put the remainder into the body and skewer the vent, tie the legs down very tight, skewer the wings down to the sides, and turn the neck on to the back with a strong skewer. Baste with salt and water once, then frequently with butter; fifteen minutes before dishing, dredge with a little salt and flour, and baste with butter for the last time. This will give a fine frothy appearance and add to the flavor of the turkey.

To make gravy, put the gizzard, neck and liver, into a saucepan with a quart of water, a little pepper, salt and mace; put it on the fire and let it boil to about half a pint. When done, braid up the liver very fine with a knife, and put it back into the water it was boiled in; then add the drippings of the turkey and a little flour, and give it one boil, stirring it all the time. Dish the gizzard with the turkey. Allow twelve minutes to a pound for the time to roast a turkey. A turkey weighing ten pounds requires two hours to roast with a clear fire, not too hot. Turn the spit very often.

Boiled turkey is prepared the same as for roasting, except in the dressing. Put in pork, chopped very fine, instead of butter. In trussing, turn the wings on the back instead of the sides, as for roasting; flour a cloth well, pin up the turkey tight, put it into boiling water where one or two pounds of salt pork have been boiling for some time; let this boil with the turkey; and dish the pork with the turkey on a separate dish, with some parsley. Serve with oysters or celery sauce. A turkey weighing eight pounds requires an hour and a half to boil.

ROAST CHICKENS.—Dress and roast the same as a turkey. A pair of chickens weighing six pounds require an hour and a half to roast. Make the gravy the same as for a turkey, except the mace, which is to be omitted.

BOILED CHICKENS.—Dress and boil the same as a turkey. Some cooks do not stuff boiled chickens or turkeys; but the dressing adds as much to the boiled as to the roast. Pork boiled with chickens is very necessary. A pair of chickens require from one to two hours to boil, depending upon the size and age.—*Ohio Farmer.*

BLOWING MEAT.—Dr. Yeld, medical officer of health for Sunderland, England, has presented a memorial to the health committee of that town against the "blowing and stuffing of meat." The practice of "blowing" is described as follows: "A tube or pipe is thrust under the skin of the meat, and the butcher or dresser then blows the foul air from his own lungs into the cellular tissue of the meat, the effect being that a deceptive appearance of plumpness or fatness is given to the meat, and in many cases it becomes tainted with the smell of rum, tobacco, etc." This is pleasant for consumers of meat, and where ignorance is bliss, it is perhaps folly to be wise; and now that public attention has been called to the "blowing" practice, it might perhaps be as well for butchers to meet the wishes of the fastidious so far as to use a pair of bellows for the purpose of giving a graceful contour to the carcasses of animals they kill. Even for their own sakes they will act prudently by discontinuing the use of their lungs in the process.

CHOCOLATE CARAMELS.—Take one pound of sugar, one-fourth pound of chocolate, one tablespoonful of milk, one also of molasses. Grate the chocolate and mix with sugar, etc. Put the mixture in an iron skillet on the back part of the stove, where the heat will slowly melt it. Cook slowly, stirring it well. To ascertain when done, take a little in a spoon and drop it in a cup of water; if done, it ought to sink in a solid mass, and in a few minutes be firm. When you have decided that it is cooked enough, grease a long cheesecake tin with butter; pour in the mass and spread evenly. Before too cold, cut in small squares.

BREAKFAST INDIAN CAKE.—Take as much meal as may be required, scald it partially; then take some drippings of lard and warm water—melt the fat with it; then take the meal and mix it with milk to the proper consistency; add a little salt and a beaten egg, or the egg may be omitted; bake on the griddle, and you will have an excellent cake.

WATER CAKE.—Take four cups of sifted flour, two cups of white sugar, half a cup of butter, two eggs, and one cup of water. Turn the water over the butter, stir the sugar into it, add the eggs well beaten. Dissolve a small teaspoonful of saleratus in a little boiling water; stir it in; mix two spoonfuls of cream of tartar with the flour. Nutmeg, lemon or mace for the flavoring.



A. T. DEWEY, W. B. EWER, G. H. STRONG, J. L. BOONE

PRINCIPAL EDITOR.....W. B. EWER, A. M.

OFFICE, No. 224 Sansome street, Southeast corner of California street, where friends and patrons are invited to our SCIENTIFIC PRESS, Patent Agency, Engraving and Printing establishment.

SUBSCRIPTIONS payable in advance.—For one year, \$4; six months, \$2.25; three months, \$1.25. Remittances by registered letters or P. O. orders at our risk.

ADVERTISING RATES.—1 week, 1 month, 3 months, 1 year
Per line.....25.....80.....2.00.....5.00
One-half inch.....\$1.00.....\$3.00.....\$7.50.....24.00
One inch.....2.00.....5.00.....14.00.....40.00

Large advertisements at favorable rates. Special or reading notices, legal advertisements, notices appearing in extraordinary type or in particular parts of the paper, inserted at special rates.

No Quack Advertisements Inserted in these columns.

SAN FRANCISCO:

Saturday, January 2, 1875.

TABLE OF CONTENTS.

GENERAL EDITORIALS.—Where is Your Garden? Pickling and Preserving; Bee Hunting, Page 1. The New Comer—1875; Jute; More Latin Wanted; A New Volume; Home Industry Notably Honored; 8. Kipp's Upright Engine, &c. General News Items; Industrial Items; Patents and Inventions, 12.

ILLUSTRATIONS.—Bee Hunting, Page 1. Kipp's Upright Engine; How to Plant the Eucalyptus, 9.

CORRESPONDENCE.—Our Up-Lands, 2.

THE DAIRY.—Premium Butter; Abortion in Cows, 2.

THE HORSE.—Clyde and French Draft Horses; Quidding Horse; The Horse for Farm Work; Blood Drinking, 2.

BEES.—Bees in Market; Communication between Bees; The Coddling Mite, 2.

USEFUL INFORMATION.—Reduction of Obesity; Natural Antiscorbutics; Structure of a Cow's Horn; Chinese India Ink; Useful Information, 3.

PATRONS OF HUSBANDRY.—Progress of the Patrons in California; New Granges; Meetings; Etc., 4-5.

HOME CIRCLE.—Little Foot (Poetry); For Dear Life; Strong Drink; A Tour of the World; Talking, Reading, Writing; Why the Telegraph Wires Wouldn't Work; External Show; Lady Whistlers; Sight and Observation; Women for School Boards; Force of Example; The Consumption of Coals; Over-Worked Women; The "Coming" Gate; An Erring Husband; A New Parlor Game; Ladies' Hats, 6. Dog Ham; "What am I Good For?" No Roses Without Thorns; About Dolls; A Hopeful Lady; Highly Charitable; Touching, 7.

YOUNG FOLKS' COLUMN.—One and One (Poetry); The Sculptor Boy; The Baby Monkey; A Boy of Pluck, 7.

GOOD HEALTH.—Washing Out the Stomach; The Hourly Death Rate; Simple Dyspepsia Remedies; Newton's Treatment of Boils; Red Wall Paper Dangers, 7.

DOMESTIC ECONOMY.—How to Cook Turkeys and Chickens; Blowing Meat; Chocolate Caramels; Breakfast Indian Cake; Water Cake, 7.

HORTICULTURE.—Grafting Grapes and Planting Locusts; How to Plant the Eucalyptus; Grafting Grape Vines, 9.

AGRICULTURAL NOTES from various counties in California, 12.

MISCELLANEOUS.—Good Advice to Settlers; German Emigration; Fastening Iron in Stone, 2. Decrease of Farm Laborers in England; Short Weight in Lard; Does Cooking Injure the Health of Stock? To Break up a Hen; Agricultural Settlers on Mineral Lands; Thick and Thin Saws; Wooden Nest Eggs; Soft Shelled Eggs; Computing the Speed of Gearing and Pulleys; Removing Hair from Hides, 3. The Development of Natural History and Science; The Transit and Its Probable Results; Pest Charcoal as a Deodorizer; Air Pressure in Wind Instruments; Belting and Gearing; The Tachometer in Surveying; Springs as Motors; Pulling up Forest Trees by Steam; Metallic Pens, 10.

The New Comer—1875.

How awkward the bookkeeper, the correspondent, and others who flourish the pen, feel in making the simple change of figures from '74 to '75! But it must be done; for Time is "relentless" in small things as well as in more weighty matters. We accordingly make the imperative change, hoping that the "new broom"—1875—will really sweep a clean course for the RURAL PRESS, and that our intercourse with our subscribers and friends will be as pleasant when we remove it from the heading of our paper, as it is at the present time when we first place it there. We again wish our friends a "Happy New Year."

ON FILE.—"Silk Culture in 1874," F. G.; "The New Homestead Plan," Sec'y. S. G. Com.; "About Dress Reform," A. J. B.; "Clipping Sheep," A Subscriber; "Letter from J. T.," "Letter from L. P.," "The Grange Socially," J. T.; "From Sacramento Grange," G. R.; "Inquiry about Jute," "Inquiry about Broom Corn," S. K. S.; "Letter from Kalamazoo, Mich.," H. H. M.; "Notes of Grange Travel," J. W. A. Wright; "Summer Houses," F. P. H.

THIRTY SEVEN vessels have loaded wheat at South Vallejo this season.

Jute.

This is undoubtedly one of the products destined to figure in the programme of diversified farming in California. Although some attention has been given to this matter during the last two years, it may still be ranked among agricultural experiments. We have endeavored to "draw out" those who are experimenting in the culture of jute, and have them communicate the results through the Press. But very little practical knowledge, it is evident, has yet been secured, and those who possess that little are quite uncommunicative on the subject. Judging from the extent and character of the inquiries received by us concerning jute, and the difficulty in obtaining the desired information, we are convinced that the growth of interest in the matter is increasing much faster than that of the plant itself.

In Southern agriculture the subject occupies precisely the same position as with us. The farmers there are making the same efforts to curtail the proportions of the cotton product, that we are using to reduce those of the wheat crop. Among the means by which they hope to effect this curtailment, the cultivation of jute figures conspicuously; more so than with us. The Jute company of New Orleans has been in active operation for some time, and is using every means to induce planters to substitute, in a measure, this crop for that of cotton, and to place the material before the manufacturers of the country. The President of this company a short time since sent to the Department of Agriculture at Washington, specimens of jute and its fabrics raised and manufactured in Louisiana. They consisted of jute filament, rolled, after cleaning by machinery; jute rope, crude as it comes from the machine; and jute rope made of rotted jute. The President stated that the jute was acknowledged to be 50 per cent. superior to the Indian article. A planter, writing from North Carolina, says that the ground was prepared as for cotton, and the seed dropped twelve inches apart; and, as the spring was a very wet one, the seed lay dormant for three weeks. The plant grew to a height of thirteen feet, with branches from five to seven feet long. The land was ploughed twice, and hoed once. It was cut in October and thrown into water, where it remained to rot three weeks; the bark was then easily stripped from bottom to top. A specimen of the fibre was exhibited at the State fair, and pronounced very fine by persons who were familiar with its culture. Bottom lands of North Carolina could be made, it is affirmed, to produce, by manuring, as much as 3000 pounds per acre. A planter in Georgia, also, who has succeeded well in an experiment in raising jute, says that if five cents per pound can be netted, more can be made by raising jute than cotton. He planted about May 1; the seed germinated freely, and the plants grew finely on rather poor land, attaining a height of over ten feet by September 19.

The attention of England is already directed to the impetus given to jute culture in this country. Although they declare that there are no indications that this fibre will be raised in the United States to an extent that will jeopardize the prosperity of the jute industry of Bengal—the main source of jute supply for England—the consideration of the subject has induced the Government in India to appoint a commission to inquire into the culture, etc., of the jute plant. They were evidently incited to this by the superiority of the American product, and with the characteristic willingness of Englishmen to acknowledge manifest superiority, and the unwillingness to play second to anybody in anything, they instituted a thorough investigation of the subject.

The report submitted by this commission is complete in every respect; containing much information that will be extremely interesting to those who are simply curious in the matter, and deserving the careful consideration of those who view the subject from the commercial and manufacturing stand points; while those who wish to embark in its culture will be able to obtain from it many points of practical utility. We therefore give the following synopsis of the report, as published in a recent number of the *British Trade Journal*:

"As to the origin of the word *jute*, concerning which there has been so much dispute, it is suggested that the modern word is simply the Anglicised form of the Orissa *jhot*, and the ancient Sanskrit *jhat*. As to the precise plant which yields the fibre, the commission has shown that the jute of commerce is yielded indifferently by two distinct species of *Tilacea*, the *Corchorus olitorius* and *Corchorus capsularis*. The plants are extremely alike in appearance, leaf, color, and growth, and differ only in their seed-pods, those of the *C. capsularis* being short, globular, and wrinkled, while those of *C. olitorius* are the thickness of a quill, and about two inches long. Both plants are annual, and grow from five to ten feet high, with a stalk about the thickness of a man's finger, seldom branching except near the top. The leaves, which are of a light green color and serrated, are four or five inches long, and taper to a point. Several other species of the same plant are said to yield *jute*, but are

not cultivated for the fiber, the species already named alone yielding the real jute. This fact was established by the commission, by a series of experiments in the Royal Botanical Gardens with seeds obtained from all the districts in which the fiber is grown. The results showed that the *jute* of commerce is the produce of one or the other of the two plants named, and of them only.

In lower Bengal, the two species appear to be grown indifferently; but in the central and some of the eastern districts, the *C. capsularis* largely predominates, while in the neighborhood of Calcutta it is the *C. olitorius* that is chiefly cultivated. The well known Lakhipore jute of Hooghly and the 24-Pergunnahs, known also as *desi jute*, is the produce of this latter species. The plant has been cultivated from time immemorial in the lower provinces, but its export is a modern industry, although the fiber has been cultivated largely for home use, and for the manufacture of gunny from a very remote period. One or other of the two plants has been found in no less than forty-seven out of the fifty-eight districts of the Presidency. The attention of the Commission was specially directed by the Government to the importance of ascertaining what description of soil was most favorable to the growth of the fiber. The evidence collected upon the point is conflicting. A light sandy soil is not suited to it, and it seems most to flourish in a hot, damp atmosphere, with a heavy rainfall and rich alluvial soil. The seasons of sowing and growing appear to be generally the same as those for the early rice crop of Bengal. The oftener and more thoroughly the land is plowed, and the more manure, the better. The seed is sown broadcast from the middle or end of March to the beginning of June, and the plant cut from the middle of August to the middle of October, and in some of the districts earlier. The Commission direct prominent attention to the extreme carelessness of the cultivators in the selection of the seed. In most instances a corner of the field, or a few stunted wayside plants are left to produce it, not the slightest attempt being made to select it; and if in these circumstances a real deterioration of the plant had taken place, a fact which the commission doubt, little wonder could have been expressed. Neither selection nor change of seed seems to be resorted to, and if the attention of the Government is ever directed to improving the cultivation of this plant, its first step must be a reform in this fundamental point of good husbandry. The acreage under jute in the great producing season of 1872 was 921,000. The area is said to have been no more than 517,000 acres in 1873. The northern and eastern districts may also be said to engross the cultivation, showing a total area of 800,000 acres under the plant in 1872, against 125,000 only in the rest of the Presidency. The suggestions of the improvement of the staple are confined to the selection of the seed, to the observance of a more careful rotation in growing the crop, and to the improvement of the processes for cutting and steeping the fiber. The influence of the cultivation on the condition of the people appears to have been good. The testimony is uniform that it has enriched the cultivators, while the deleterious effects of the manufacture upon their health seems to be very problematic. As to an alleged deterioration of the staple, the commission attribute this belief to the fact that the high prices which have prevailed of late years have stimulated the production of large quantities of inferior or badly-prepared jute. It is not that there is less good jute produced than formerly, but that a larger proportion of inferior fiber grown on any and every soil has come into the market under the stimulus of prices; and that when the quantity grown is large the care devoted to its preparation is comparatively small. The commission record their judgment that there is nothing to show that there has been any deterioration, in *se*, in the character of the jute, or any general falling off in the quality of the fiber. The local manufactures of the fiber into cordage and twine, and into gunny cloth, and gunny bags, are described in their report at length; and the commission have shown that it is used for paper-making in several districts.

More Rain Wanted.

The immediate want of rain is not urgent, according to such information as we can obtain from correspondents, exchanges and other sources, but serious apprehensions are looming up in connection with the prospect of a dry winter which many now predict. We have no sympathy with croakers; and one of the regrets growing out of the present unhelpful aspect of the season, is a sort of mortification at the satisfaction which these evil prophecies manifest over the seeming truthfulness of their predictions. It will be remembered that on the appearance of the first rains of the season, which were unusually early and copious, fears were entertained that they would be followed by a dry winter; and at the present time there is, it must be confessed, too near a prospect of those fears being realized.

While we do not believe in ganging our operations or allowing our feelings to be swayed by the predictions of those who are continually prophesying evil, we are not disposed to close our eyes to anything that is so near an approach to disaster as the present scarcity of rain renders imminent. We might as well face the music at once, as to wait until the din becomes confusing.

A New Volume.

This issue commences Volume IX. of the PACIFIC RURAL PRESS. It will be our endeavor to improve each number issued during the year. It is a good time for old subscribers to renew their subscriptions, and to induce their neighbors to enroll their names also on our large and increasing list. With compliments to our newspaper exchanges of the past, we would say that all editors receiving this number of the RURAL may consider that we desire a continuance of their exchange.

Home Industry Notably Honored.

The Committee on Gold Medals of the State Agricultural Society have awarded a gold medal to the Alden Fruit Preserving Co., by recommendation of the Committee in the Department of Dried Fruits, etc. The report of the Committee was as follows:

Your Committee beg to report: That in examining the dried fruit on exhibition they were highly pleased with the excellent quality and great commercial value of the fruits and vegetables entered by Geo. W. Deitzler, President of the Alden Fruit Preserving company of California. These articles are not dried, in the common acceptance of that term, but are preserved in their own juices by this peculiar process, and, it is claimed, will keep for years in any climate. The flavor of the fresh fruit is retained, and it is free from that dark and leathery appearance which is always found in sun or kiln-dried fruits.

The Committee have no hesitation in expressing the opinion that, as regards appearance and flavor these articles are the best on exhibition. The value of such fruits and vegetables is very great. California can produce, in unlimited quantities, the finest fruits and vegetables in the world; but we have not the resident population to consume these immense productions in their fresh state, and they will not bear transportation to distant markets. Neither can we hope to find a remunerative market for inferior dried fruits and vegetables, at home or abroad; but for such preserved articles as those under consideration there is, it seems to us, no danger of overstocking the market.

When we consider that there are imported into the United States, annually, over \$15,000,000 worth of dried fruits, all of which articles can be raised in California, and placed upon the market in a cured condition, infinitely superior to the imported articles, the importance of this enterprise can be appreciated. In view of these considerations we deem the articles on exhibition by the Alden company as worthy of special notice, and we respectfully recommend that the Board of Directors award to the company the gold medal, and give to their valuable and growing industry every possible encouragement.

W. C. HOPPING,
ALFRED BRIGGS, } Com.
W. R. STRONG,

FROM ALAMEDA.—A correspondent speaks of a trip through this county as follows: "From a trip through Alameda county and around the bay, I find the country everywhere green with verdure, excepting that which is plowed and seeded; and never were crops put into the ground here when it was in better condition. But the feed for stock is beginning to shorten, in places, and rain will be needed soon, as some of the ground is too dry to plow well."

ANSWERS TO QUESTIONS.—A subscriber at Anaheim asks the following questions: First, will the Muscat Alexandria do well on sandy soil? Second, in what month should deciduous trees be budded? Third, what month is considered the best for planting blue gum seed? Answers: First, yes; on "sandy soil," but not on pure sand. Second, in August and September. Third, amateurs would do well to wait until February or March before planting blue gum seed.

IT PAYS IN MORE WAYS THAN ONE.—It pays in more ways than one to take a good newspaper. If you read it, it is a benefit which lasts beyond death. If your family read it, they will be better companions for you and the world besides. It is a good representative of your community when sent abroad, and you can afford to support it for the value of its influence in the public weal.

THE REEDVILLE HERD.—S. G. Reed, of Portland, Oregon, one of the most successful and prominent importers and breeders of fine stock on this coast, makes an important announcement to stock purchasers in our advertising columns to-day.

ANOTHER WOOLEN MILL.—Active efforts are being taken to secure the erection of a woolen mill at Merced. The sum of \$32,000 has already been paid up. It is proposed to go into the manufacture of mixed fabrics—woolen and cotton.

Two farm hands named Howe and Webber were recently robbed on the Pacheco road, while on their way to Martinez.

HORTICULTURE.

Grafting Grapes and Planting Locusts.

EDITORS PRESS:—We see by reading the PRESS that communications are in order where they pertain to something in which the people are interested. Now we propose to offer a few ideas on a subject that has been treated on before; grafting the grape vine and planting locust seed. Both of which have been recently treated upon in the PRESS. But we want something practical and adapted to our present needs. First, in grafting the grape vine of large growth there is considerable labor required at the best. Now we wish to do the work in the fastest possible manner and have it succeed. The two past years we have had a little experience and tried different plans. First we grafted large vines six years old, by sawing off below the ground and then sawing down in the top and cutting out with a knife so that the end of the graft may be made to fit easily, then put in and pound lightly so that it will be firm, then pack damp earth around and cover with loose soil about to the top of the graft; or a little over will do no harm. Second, we sawed off as before, and slit with a chisel, and packed with soil as before; and third, we cut off with a broad thin chisel, made for the purpose, all vines that would admit, but with some vines the roots came out too close to the top of the ground. The cutting done by setting the chisel on one side with a little slant downward and cut to the center, and then cut from the other side to meet in the same way and split in the center to insert the graft. This method will sever the vine some, but I could see no difference about the starting. This method being the quickest and easiest, would recommend itself to many. In all cases large vines should be opened with a wedge to allow the graft to enter easily. The soil should be packed around the vine in the last instance the same as in the first.

As to the time of grafting there is some difference of opinion, in my experience the latest set have done the best. The first was done when the buds began to start, and the last after they had got out a number of inches, and the last set have always started first and done best. I was in the vineyard of Mr. Cantilow, Pleasant valley, near me, and he showed me some that were grafted after they had made a growth of a foot or more, and done by sawing off below the ground, splitting, and inserting a small wedge, and leaving in on all large vines to prevent to hard a pressure on the graft. Set the bark near together and cover with loose earth, lay the severed trunks bottom up over the grafts to prevent the sun coming on too warm. They had made a fine growth with small per cent. of loss.

In grafting the grape vine, as in anything else, much depends on having the graft in good condition. I think they should be cut some time before the sap begins to start and kept fresh in sand or common soil, but not too damp. Planting locust seed is something not understood very generally and many are disappointed in not having seed grow. My experience has cost something and may possibly be worth something to others if given to the public through the RURAL PRESS. Not long since an article appeared in the PRESS stating that the seed should be scalded and immediately planted. Now that is not enough; it might lead many into mistakes. I have planted a number of times and always scalded the seed before planting and never had but very few come up until the last planting. The reason was the seeds were not scalded enough. My last process was as follows: Put scalding water on the seed and let stand until cold and repeat and continue to repeat until the seed swells to nearly three times its natural size. It will not be uniform, and only a portion will swell at each scalding, which should be separated as far as possible, as repeated scalding might injure it; but by no means plant until it has swelled, for but very little if any of it will grow. In my last planting I scalded some of the seeds five or six times, separating what I could conveniently and let it stand until all was ready, and planted in good ground, the same as any other seed and about the time when you would plant corn. Practice this method, and my word for it it will come up as easily as corn or beans.

The question of timber is getting to be one of great importance to Sacramento valley, and something must be done soon or we shall be left out in the cold, as the timber is fast disappearing along the foot-hills and the groves of the valley, and already exorbitant prices are beginning to be asked for firewood. I have some planted in hedge row form, about two feet apart, which has been growing the two past years and is doing well, and promises soon to make a stock fence, and with a few pickets between will stop hogs, to say nothing about the firewood which may be taken off without injuring the fence. The beauty that it adds to any place should be sufficient inducement to plant trees of some kind. M. ALLEN.

Near Dixon, Solano county, Cal.

How to Plant the Eucalyptus.

[Written for the RURAL PRESS by W. P. GIBBONS.]

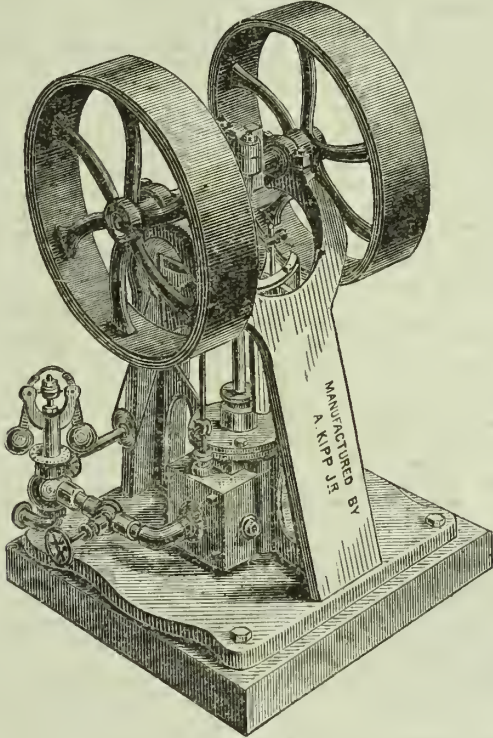
Having recently received several letters requesting information in regard to the cultivation of the eucalyptus, I avail myself of the facility of telling nearly all I know about the matter, through the RURAL PRESS, so that every anxious inquirer may have access to the same. Perhaps these remarks may induce more than one of my correspondents to engage in the matter, with other objects than mere experiment—for experiments have already established the propositions which are contained in this paper.

Plant your seed immediately, in a box 12 inches deep containing 8 inches of clean, rich loam, by dropping the seeds on the surface about an inch apart, and covering them with a quarter of an inch of saw dust, or by sifting vegetable mold over them to a like depth. The common method of placing the seed in 3 or 4

a forest tree on his premises; who has stripped his cañons of the few straggling oaks, which once kept up a flowing stream throughout the year; who has spent his money in purchasing fencing for his fields; whose homestead looks as dreary as weather-beaten boards and ash colored surroundings can make it. I know that there are hundreds of such farmers around and I wish to show them the money-making aspect of cultivating trees.

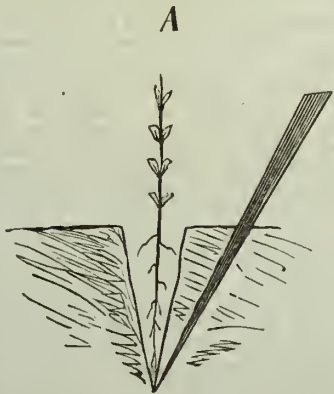
You have 100 acres of ground then. That will be equivalent to a square plot often acres to each side, of 2,036 feet; so that the outside of your farm will measure 8,314 feet round. Sub-soil a strip 26 feet wide round your land; this will take up five acres. Through this strip open four furrows six feet apart, and run the plow through each several times till the soil is loosened deep and finely pulverized. The ground is now prepared for planting.

Take a piece of thick twine or bale rope some 200 feet long, untwist and tie through the strands short pieces of rag four feet apart; stretch the line tightly along the center of one of the furrows, and with a dibble make a hole six inches deep and an inch and a half in diameter opposite each mark on the line. Knock off one side of your box containing the plants,



KIPP'S UPRIGHT ENGINE.

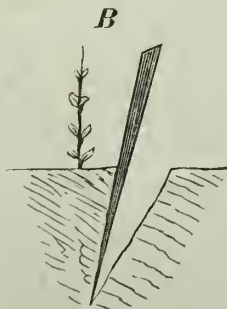
inch depth of soil, is objectionable, as the roots soon penetrate to the bottom of the box, and are bent off at right angles to the axis of the plant. This distortion prevents the tree from having such a firm hold in the soil, as it otherwise would. Hence so many eucalyptus trees blow over after having a growth of 4 or 5 years. Their germination may be facilitated by soaking them for 24 hours in a pint of warm water,



in which a piece of saltpeter or carbonate of ammonia about the size of a marble has been dissolved. Place the box in your kitchen or some other warm locality where sunlight will reach it, cover it with glass or a piece of board, and keep the soil watered every day, sufficient to give a decidedly moist character thereto; if possible, keep up a temperature of about 75° F., during the day time, until the seeds sprout. When they are half an inch high, remove the covering, and give them sunshine. They will grow more slowly, but the plants will be more hardy and vigorous. When they are four inches high, they should be gradually seasoned to out door temperature, so that they may be ready to transplant as soon as frosts disappear. You will then have trees from 4 to 6 inches high, growing in a depth of soil which will insure straight and vigorous roots.

I presume, now, that I am talking to a farmer, who has from 100 to 500 acres of land; who has been raising cattle, horses, hogs and sheep for 12 years past; who has never planted

and with a trowel or strong knife carefully detach each tree from the soil, disturbing the soil about their roots as little as possible. Then take the tree between the thumb and finger of the left hand, pass its root into a hole to its natural depth, and with a trowel or piece of flat, hard wood pointed at the end, press the dirt around the root, and level the soil about it. In short, plant them just as you would cabbages or tomato plants; but mark this point, be sure that the roots are vertical. See this representation—fig. A. The tree is in the hole with the stick ready to close in the soil about the root; fig. B, the tree as planted with the stick ready to withdraw from the soil. You will thus have four rows of trees round your farm, four feet apart in the row, and the rows six feet distant; each row will contain 2,086 trees, making an aggregate of 8,314 trees, occupying five acres of your ground. Two men can plant 3,000 trees in a day in this manner. They will require



no stakes. They must be dressed by the cultivator three times during the first year, and they must receive one plowing and three dressings each succeeding year for four years.

The following table will give the dimensions of the trees at five years old, and at every succeeding year till they are thirteen years old:

Age Years.	Diameter Inches.	Height Feet.	Wood in Cubic Ft.
5	9	40	5.75
6	10	45	8
7	11	50	11.5
8	12	55	14.33
9	13	60	18.40
10	14	65	23
11	15	70	28
12	16	75	34.75
13	17	80	42

On the 6th year, take out every other tree of first row; 7th year, second row; 8th year, third row; 9th year, fourth row. The amount of cord wood obtained each year will be 47, 57, 93,

and 116, making a total of 323 cords. You will now have left 4,172 trees, and the trees will be eight feet apart in the row. On the 10th, 11th, 12th and 13th year take out every other tree, and the amount of cord wood obtained will be 75, 93, 114 and 140, making 422 cords. Making an aggregate of 745 cords of wood obtained, and a balance of 2,086 trees which will contain 684 cords. Now sum up the whole operation. Total quantity of wood realized at the end of 13 years, 1,429 cords, at a cost of

Seed.....	\$ 5 00
Preparing five acres of ground.....	15 00
Six days' labor planting.....	12 00
Subsequent cultivation.....	60 00

Total cost.....\$92 00

These estimates are within bounds. On dry hillsides, the growth will not be so rapid, and if 50 per cent. be taken from the foregoing results, there will still be left a wide margin for profit. On the other hand, on larger farms, a much greater number of trees may be thus cultivated. The outside capacity of 160 acres will be 14,000 trees, yielding at the end of 13 years, 2,400 cords of wood. Any other kinds of forest trees will prove remunerative if cultivated, but on account of the rapid growth of the Eucalyptus and the density and durability of its wood, it commends itself over other kinds for immediate profits. But some farmers must bear in mind one cardinal fact: That while Providence furnishes the material and conditions for the healthy growth and development of trees, it does not engage in the cultivation of the soil.

Grafting Grape Vines.

Nothing in the world is more easily grafted than the grape vine, and as by this simple operation vineyards of Mission or other inferior varieties may be transformed into thrifty bearing vines of the best varieties in two years' time, we deem the following instructions on this subject, of paramount value to anything we can give our readers. Just before the buds begin to swell in the spring dig the earth away from the vines to be grafted leaving from six inches to a foot of the tap root of the vine exposed. Then with a sharp saw cut off the vine five or six inches below the surface,—if the vine be large drive a wedge into the center to hold open the cleft which should be made by driving into the top of the stump a thin-bladed hatchet.

The grafts should be cut from the base of large limbs and should be made wedge-shaped by cutting the wood away from both sides, the joint of the wedge should be cut square off leaving it at least one-eighth of an inch in thickness.

Insert the graft as in cleft grafting of trees, and pack the dirt closely around, leaving only a bud of each graft above ground.

Setting Grape Vines.

My instructions in setting grape vines published in your last should have read: Set your cuttings any time in January, though when from any cause you cannot set them so early you can keep them in a cool damp place, (not in water) or bury them in the ground where the water does not stand, and where they are shaded from the heat of the sun, thereby preventing their starting to grow. Cuttings so kept can be set as late as the 20th of March.

W. A. S.

Kipp's Upright Engine.

The accompanying illustration represents Kipp's upright engine, one of which, of small size, was exhibited at the late Mechanics' Institute Fair and also the State Fair, where it run a large Sluethour pump. Both engine and pump were exhibited by J. M. Keeler & Co., of 306 California street. The engine was awarded a diploma at the State Fair. Certain important advantages are claimed by the manufacturers over other upright engines. The style of frame is both symmetrical and strong, and its lines and proportions bring the whole into a compact form so that it occupies much less space than is usually the case.

The cylinder, steam chest and piston guides are cast solid in the frame, giving a mutual support and making it impossible for it to vary from its original exactness in working. Again, the piston guides and steam cylinders are bored or turned out at the same time, and, of course in the same line, so it is difficult for the engine to get "out of true" in working. The engine has the latest improved slide valves, which are easily adjusted. The shaft and piston rods are of steel. The bearings are of the most approved kind, and all the adjustable parts exhibit good workmanship, the engine running almost noiselessly.

The governor is simple, effective and ingeniously connected, and, on the whole, it is claimed that for workmanship, compactness, durability, and ease in handling, the engine has no equal in the market. Messrs. Cubery & Co., 414 Market street, are running power presses with one of these engines, where it may be examined by those interested and inquiries made as to cost of fuel as compared with other engines. The price asked for it gives it a fair advantage in the market. The engine can be used for many purposes on farms, and being small and easily handled would be very convenient in many places in the country.

The Development of Natural History and Science.

Mr. W. W. Calkins, recently before the Chicago Academy of Sciences, read a very interesting paper on "The Development of Natural History as a Science," of which the following digest is given in the *Engineer and Architect*:

The great lamented Agassiz said, "I have devoted my whole life to the study of nature, and yet a single sentence may express all that I have done." This confession reveals to us a degree of simplicity and grandeur not often witnessed. It suggests that the grace of modesty might be cultivated by most people with great propriety. Since man was first created he has been engaged in studying the world of animate and inanimate objects around him. As the first rude efforts seem to us like childish displays, so, when the present era shall become antiquity, our attainments in knowledge will no doubt appear small indeed in comparison with the advances that shall mark future ages.

Aristotle was the first prominent naturalist, and the founder of the science. As evidence of this, we have his "History of Animals." In Aristotle's time, 2,000 years ago, text-books of natural history were in common use, and the study was pursued with vigor. We are still without elementary works of this kind adapted to the young beginners. We are, however, working up to the point when the study of natural history in the school will be indispensable and popular. After 1800, Linnaeus resumed the work where Aristotle had left it. Pliny added but a little to what had been done by Aristotle. The Middle Ages, with an intellectual pall dark as night, followed the enlightened period of Roman and Grecian history, and gave us nothing. The sixteenth century witnessed a temporary revival in this and other branches of learning. The naturalists were mainly occupied in studying local species, and in disputing over ancient authors. The seventeenth century witnessed remarkable advances in general knowledge, but men had not yet done wondering over the successful revolt of the Netherlands, or the brilliant military career of Gustavus Adolphus, Wallenstein, and Tully.

It was reserved for Linnaeus, in the last century, to break the spell that had for so many ages been hung over the pursuit of the natural sciences, and strike the key-note that aroused the scholars of Europe from their lethargy. Aristotle had given us genera and species; he divided the animal kingdom into *Enaima* and *Anaima*, or blooded and bloodless animals. Linnaeus, beginning where Aristotle left off, formed, in addition, classes and orders. He divided the animal into six classes—mammalia, birds, reptiles, fishes, insects and worms. The classification at once aroused the attention and provoked the criticism of other naturalists. The defects were pointed out, and the important principle of classification founded upon the internal structure, and uniting animals upon common structural characters, was established. The magnitude of the work of classification will be appreciated when we consider that the species now number 230,000. The confusion that existed before Linnaeus' time on account of the different names and languages employed by naturalists was counteracted, and in fact done away with by the use of one language by him—the Latin.

Linnaeus' classification, however, did not meet with entire success. Its effects did not escape criticism. All, with the exception of the great Cuvier, failed to strike the grand principles of classification. When he announced his theory dividing the whole animal kingdom into four classes—Vertebrates, Mollusks, Articulates and Radiates—the scientific world stood amazed, as though a revelation had been made from Heaven. The founder of comparative anatomy was not one who skimmed over the surface of things. Cuvier went deeper; he examined the internal organization and revelations of animals. He tells us the comparison was the secret of his success. The result embodied the four plans of creation already mentioned. The views of Cuvier, which have withstood criticism for nearly three-quarters of a century, lead to three conclusions: First, that Cuvier's four classes embrace all known animals. Second, that there is thought and harmonious law as the basis of all, the whole directed by one will—the Creator. Third, that the numerous subdivisions of the four great groups mentioned, such as classes, orders, families, genera, species and other subdivisions of these subdivisions, should be formed in accordance with characters expressed in nature to be of value. Otherwise they are artificial distinctions tending to lead us away from what we seek, and that which is the basis of all science—the truth.

Another great discovery hardly less important than those mentioned was that of Von Baer in embryology—or the fact that all animals originate from eggs, and though all alike at first, grow to maturity on four different plans. Embryology is yet in its infancy. Agassiz made some of his greatest discoveries in this science, and it furnishes one of the most attractive and promising fields open to the explorer. The progress of natural history for 50 years has been rapid. The latter part of the last and the beginning of the present century were particularly marked by great discoveries. The present century has produced hosts of distinguished naturalists who have labored successfully in their particular departments, but Agassiz, before his death, probably ranked first among living contemporaries.

Mr. Calkins closed by saying that the study of natural history should be popularized.

The Transit and Its Probable Results.

The full result of the patient watchings of the various parties deputed to observe the transit of Venus, will not be made known to the world for several months, perhaps not in a year from now; and they will probably be affected with a larger possible error than is generally anticipated. It will be some weeks before the telescopic measures taken at all the stations can be known, even if transmitted by telegraph, because many of those stations are far removed from any ocean cable at present in existence. At many of the stations the chief dependence will be on photographic views, and the negatives cannot be transmitted by means of the lightning flash; they can only be carried by the slower agency of steam to the observatories where they can be submitted to measurement with the micrometer. Then all the results obtained at separate stations must be compared, and many laborious calculations be made before the value of the solar parallax can be known.

Mr. E. Colbert, in some remarks at a late meeting of the Chicago Academy of Sciences said: "I have called your attention, at former meetings to the difficulties which will be encountered in the attempt to reconcile these observations; difficulties arising from, 1, the irregular shape of the earth, which is not a true oblate spheroid; 2, the irregular contour of the sun, its surface being in a state of perpetual commotion; and, 3, the errors of observation, which may be regarded as an external kind of 'personal equation.'" Summing the probable average of these three factors of error, I conclude that the astronomical world will be fortunate if it is able to reconcile all the observations so as to make it certain that the accepted average is not more than 100,000 miles in error, or one part in 900 of the whole distance.

There is no reason to doubt that we already know the distance of the sun to within 300,000 miles. I speak not now of my own calculations of the quantity, but of the extremes claimed by others. If we assume 91,700,000 miles as the average, this estimate will not be more than 200,000 miles, from the 92,000,000 miles of Newcomb, or the 91,480,000 of the English computers. This is one part in 300 of the whole distance. Hence the probability is that observations of the transit of Venus in 1874, on which more than \$1,000,000 have been expended, and involving the equivalent of not less than 200 years of labor on the part of one man, will only reduce the uncertainty to about one-third of its present magnitude. But this will be no mean achievement. It is not saying too much to claim that this result will be worth at least ten times the money and labor expended in obtaining it."

PEAT CHARCOAL AS A DEODORIZER.—The extraordinary deodorizing power possessed by that variety of charcoal known as bone-black is generally attributed to the earthly matter with which it is mixed. It was therefore to be expected that peat charcoal should be specially valuable in this direction, and in some parts of England and Scotland it is now extensively used for mixing with the excreta of households on account of its value as a deodorizer. Peat charcoal is one of the most porous of all forms of impure carbon, and its powers of absorption when dry are very great. Thus, in some experiments tried in the town of Lamington, England, recently, it was found that two or three ounces of newly-made peat charcoal were sufficient to deodorize six gallons of ordinary sewage. The actual proportions employed, according to the report, were about one part of charcoal to 150 of sewage by weight; and in a few minutes after the charcoal was mixed with the rich albuminoid sewage, a peculiar sweet smell was noticed, but in less than a quarter of an hour all smell had disappeared, and the constant addition of fecal matter did not permanently restore the odor. A closet arranged for the purpose was devoted to the use of some forty laborers, but even during the hottest weather, on no occasion, was any offensive effluvia noticeable, although the amount of peat charcoal daily made use of did not equal the proportion already stated.

AIR PRESSURE IN WIND INSTRUMENTS.—Dr. W. H. Stone in a paper before the Physical Society, of London, describes some experiments on the wind pressure in the human lungs during the performance on wind instruments. About 6 feet of water or 13 pounds pressure per square inch was the ordinary maximum when a small tube was inserted between the lips. When the lips were supported by a capped mouth piece, as in brass instruments, a much greater pressure could be sustained, and lip muscles invariably gave way long before the expiratory power of the thoracic muscles was exhausted. The following pressures were sufficient to produce an orchestral tone: The oboe requires an air pressure of from 5 to 10 ounces per square inch, the clarinet, 8 to 14 ounces; horn, 2½ to 5 ounces; cornet, 5 to 18 ounces; euphonium, 1½ to 23 ounces; bombardone, 1½ to 20 ounces. It will be noticed that the clarinet, in this, as in some other respects, differs from its kindred instruments, and also that some of the pressures are small, not exceeding or indeed attaining the pressure of a fit of coughing. They are, therefore, very unlikely to injure the lungs, or to produce the emphysema erroneously attributed to them.

Belting and Gearing.

As regards the transmission of power, the Americans, says a French writer, aim at achieving two important things which are correlative—the lightest possible weight and the highest possible speed. Hence the universal substitution of belting for gearing, and the general adoption of light shafting and small pulleys, which are conspicuous features of their system of transmitting power. The first mover is usually a gear, but after that all transmission is obtained by belting. The belting is a little study in itself, but it will suffice to say here that belts of the latest improved pattern run for wonderful lengths of time without piecing. The ease and durability of the system, would, I think, astonish the advocates of gearing. The light shafting and small pulleys in general use are said to save twenty-five per cent. of the power. The shafting is run twice as fast, and hence the pulleys can be smaller, yet the fly wheel of a powerful engine may be large. For instance, I have seen one twenty-seven feet in diameter going, as I was informed, a mile a minute. The pulleys are cast, but it is expected that wrought pulleys much lighter will soon come into general use. Hollow shafting is finding favor. If shafting and pulleys could be advantageously constructed of steel, the saving of power would probably be greatly increased. Engines and their equipments, and belting, shafting, and pulleys, are all made in the United States.

THE TELEMETER IN SURVEYING.—Captain W. H. Dall, in some remarks recently made before the Civil Engineer's Club, of New York, said that he had used the telemeter for four years on the coast and interior of Alaska. His rod was even more simple than Mr. French's, and he found that he could depend on his surveys being almost accurate, and in some cases much more so than if measured with the chain or tape. On rocky shores, the telemeter was invaluable, and in a few months he had, with the assistance of a common sailor, as rodman, made surveys that by the ordinary methods would require fully five years to complete. He discovered after a time that for correct results an accurate focus was necessary, and to every observation the following correction or error in measurement was to be added, viz.: to the distance of the eye-piece from the object glass add the distance of the object glass from the diaphragm, which in the case of his instrument was exactly one foot. This subject of surveying with the telemeter is a very important one, and worthy of careful investigation.

SPRINGS AS MOTORS.—The method of propelling cars, omnibuses and velocipedes by coiled springs is being tried in England, and with good prospects of success. The motor used is an arrangement of powerful springs encased in cylinders like watch springs on a very large scale. A car worked by these springs is shortly to be tried on the tramway at Greenwich. The services of French machinists have also been called into requisition, and steel bands capable of being coiled and of exerting great pressure have been made in lengths of one hundred yards each. In Sheffield some of the steel manufacturers have turned out springs fifty and sixty feet long, and said to be capable of a pressure of eight hundred pounds. To wind up these springs of course requires more power than could be obtained by hand, and the English experimenter proposes to have them wound at certain intervals by means of stationary engines. The result of the experiments will be looked for with much interest. Some of the English patents have a combination of spiral or helical springs.

PULLING UP FOREST TREES BY STEAM.—Some interesting experiments in the clearing of wooded lands took place lately in Scotland. The experiments were carried out under the auspices of the Canadian Land Reclamation Company and were intended to demonstrate the ease with which the forests of Canada could be cleared by means of this process. A traction engine of twelve horse power is stationed some distance off from the wood, and a wire chain is fastened to the tree. Steam is then put on, and the tree is pulled out by the roots. An objection to the adoption of the process was that it would injure the wood by splitting the tree; but the experiments showed that, with proper precautions, there was no fear of such a result. In five hours upward of 300 trees, in a plantation nearly 100 years old; were pulled out. Of that number not above half a dozen were broken, and in these cases the result was wholly due to the inexperience of the men engaged in the work, who placed the chain too high on the tree.

METALLIC PENS.—It was a fortunate thought which led some genius to substitute metallic pens for those obtained from the gray goose quill, for if to-day we had to depend upon these sagacious birds for our supply of writing materials, quill pens would be at a premium. So rapid has been the increase of knowledge, and so greatly has cheap postage promoted the desire and the power to write, that all the quills in the world would not furnish one-tenth of the necessary supply of pens. If, therefore, it had not been for the invention of gold and steel pens, our schools, our counting rooms, and our editors would have had hard times, during the time that has elapsed since quill pens were displaced by metallic ones, the form and material of these useful substitutes has been greatly varied, but notwithstanding the many forms which have been introduced, there is still great room for improvement, as every writer knows.

DEWEY & CO.

American & Foreign Patent Agents,

OFFICE, 224 SANSOME STREET, S. F.

PATENTS obtained promptly; Caveats filed expeditiously; Patent reissues taken out; Assignments made and recorded in legal form; Copies of Patents and Assignments procured; Examinations of Patents made here and at Washington; Examinations made of Assignments recorded in Washington; Examinations ordered and reported by Telegraph; Rejected cases taken up and Patents obtained; Interferences Prosecuted; Opinions rendered regarding the validity of Patents and Assignments; every legitimate branch of Patent Agency Business promptly and thoroughly conducted.

Our intimate knowledge of the various inventions of this coast, and long practice in patent business, enable us to abundantly satisfy our patrons; and our success and business are constantly increasing.

The shrewdest and most experienced Inventors are found among our most steadfast friends and patrons, who fully appreciate our advantages in bringing valuable inventions to the notice of the public through the columns of our widely circulated, first-class journals—thereby facilitating their introduction, sale and popularity.

Foreign Patents.

In addition to American Patents, we secure with the assistance of co-operative agents, claims in all foreign countries which grant Patents, including Great Britain, France, Belgium, Prussia, Austria, Victoria, Peru, Russia, Spain, British India, Saxony, British Columbia, Canada, Norway, Sweden, Mexico, Victoria, Brazil, Bavaria, Holland, Denmark, Italy, Portugal, Cuba, Roman States, Wurtemberg, New Zealand, New South Wales, Queensland, Tasmania, Brazil, New Grenada, Chile, Argentine Republic, AND EVERY COUNTRY IN THE WORLD where Patents are obtainable.

No models are required in European countries, but the drawings and specifications should be prepared with thoroughness, by able persons who are familiar with the requirements and changes of foreign patent laws—agents who are reliable and permanently established.

Our schedule prices for obtaining foreign patents, in all cases, will always be as low, and in some instances lower, than those of any other responsible agency.

We can and do get foreign patents for inventors in the Pacific States from two to six months (according to the location of the country sooner than any other agents.

Home Counsel.

Our long experience in obtaining patents for Inventors on this Coast has familiarized us with the character of most of the inventions already patented; hence we are frequently able to save our patrons the cost of a fruitless application by pointing them to the same thing already covered by a patent. We are always free to advise applicants of any knowledge we have of previous applications which will interfere with their obtaining a patent.

We invite the acquaintance of all parties connected with inventions and patent right business, believing that the mutual confidence of legitimate business and professional men is mutual gain. Parties in doubt in regard to their rights as assignees of patents, or purchasers of patented articles, can often receive advice of importance to them from a short call at our office.

Remittances of money, made by individual inventors to the Government, sometimes miscarry, and it has repeatedly happened that applicants have not only lost their money, but their inventions also, from this cause and consequent delay. We hold ourselves responsible for all fees entrusted to our agency.

The principal portion of the patent business of this coast has been done, and is still being done, through our agency. We are familiar with, and have full records, of all former cases, and can more directly judge of the value and patentability of inventions discovered here than any other agents.

Situated so remote from the seat of government, delays are even more dangerous to the inventors of the Pacific Coast than to applicants in the Eastern States. Valuable patents may be lost by the extra time consumed in transmitting specifications from Eastern agencies back to this coast for the signature of the inventor.

Confidential.

We take great pains to preserve secrecy in all confidential matters, and applicants for patents can rest assured that their communications and business transactions will be held strictly confidential by us. Circulars free.

Engravings.

We have superior artists in our own office, and all facilities for producing fine and satisfactory illustrations of inventions and machinery, for newspaper, book, circular and other printed illustrations, and are always ready to assist patrons in bringing their valuable discoveries into practical and profitable use.

DEWEY & CO.,

United States and Foreign Patent Agents, publishers Mining and Scientific Press and the Pacific Rural Press, 224 Sansome St., S. F.

Scientific and Practical Books on Mining, Metallurgy, Etc.

Published or issued, wholesale and Retail, by DEWEY
CO., MINING AND SCIENTIFIC PRESS OFFICE, S. F.

BY GUIDO KUSTEL,
MINING ENGINEER AND METALLURGIST.

**Roasting of Gold and Silver Ores, and the
Extraction of their Respective Metals without Quick
silver.** 1870.

This rare book on the treatment of gold and silver
ores without quicksilver, is liberally illustrated and
crisscrossed full of facts. It gives short and concise de-
scriptions of various processes and apparatus employed
in this country and in Europe, and explains the why
and wherefore.

It contains 142 pages, embracing illustrations of fun-
naces, implements and working apparatus.

It is a work of great merit, by an author whose repu-
tation is unsurpassed in his speciality.

Price \$2.50, coin, or \$3 currency, postage free

**Concentration of Ores (of all kinds), in-
cluding the Chlorination Process for Gold-bearing
Sulphurets, Arseniurets, and Gold and Silver Ores
generally, with 120 Lithographic Diagrams.** 1867.

This work is unequalled by any other published, em-
bracing the subjects treated. Its authority is highly
esteemed and regarded by its readers; containing, as it
does, much essential information to the Miner, Mill
man, Metallurgist, and other professional workers in
ores and minerals, which cannot be found elsewhere
in print. It also abounds throughout with facts and
instructions rendered valuable by being clearly ren-
dered together and in simple order. It contains 120
diagrams, illustrating machinery, etc., which alone are
of the greatest value. PRICE REDUCED TO \$5.

**Nevada and California Processes of Silver
and Gold Extraction, for general use, and especially
for the Mining Public of California and Nevada, with
full explanations and directions for all metallurgical
operations connected with silver and gold from a
preliminary examination of the ore to the final cast-
ing of the ingot.** Also, a description of the general
metallurgy of silver ores. 1864.

As its title indicates, this work gives a wide range of
information, applicable to all vein miners and workers
in precious metals, affording hints and assistance of
exceeding value to both the moderately informed and
the most expert operator.

Price, \$5 in cloth; \$6 in leather—coin.

BY OTHER AUTHORS.

The Quartz Operator's Hand-Book; by P.
M. Randall. 1871. Revised and Enlarged Edition.
Cloth bound, 175 pages. Price, \$2.

**Sulphurets: What They Are, How Con-
centrated, How Assayed, and How Worked;** with a
Chapter on the Blow-Pipe Assay of Minerals. By
Wm. M. Barstow, M.D.; 1867; cloth bound, 114 pages.
Printed and sold by DEWEY & Co. Price, \$1; postage
free. The best written work, and most complete
work on the subject treated.

ANY OTHER BOOKS DESIRED will be furnished at
the most reasonable rates by DEWEY & Co., Mining and
Scientific Press Office, S. F.

JAVA COFFEE SEED.—We have received from the Is-
land of Java a small consignment of the above variety
of Coffee, which was saved expressly for seed. Mer-
chantable coffee is thoroughly dried and its color
changed before shipping, and is, in consequence, of no
value for seed, which accounts for the failure which
has attended all efforts to sprout it. Seed-coffee (so-
called), which we received from the Department of
Agriculture, in Washington, proved worthless with us
as has with others. The seed which we offer is eu-
phatically good. We have plants grown from it. The
seed may be sprouted in a "bot-hed," or in any warm,
sheltered situation—using a fine, sandy soil, which
should be kept moderately moist. There are a few
Coffee trees in this State, one of which is about twenty
years old, and which began to bear fruit when only five
years old from the seed. Price per packet, containing
one ounce, fifty cents. Price per pound at reduced rates.
Address R. J. TRUMBULL, 427 Sansome St., S. F.
25v8-1am-2t

TWELVE COLUMNS OF PRICES EVERY WEEK.

**SAN FRANCISCO
JOURNAL OF COMMERCE**
—AND—
Weekly Price Current.
NO MERCHANT SHOULD BE WITHOUT IT.
W. H. MURRAY, Business Manager,
414 Clay Street.

RELIABLE REVIEWS OF THE MARKETS.

SANTA BARBARA COLLEGE,

SANTA BARBARA, CAL.

A Boarding School for Boys and Girls, offering all the
advantages of a thorough modern education. French,
German, Spanish, Latin, Greek, Drawing, the Natural
Sciences, Gymnastics and Dancing taught without extra
charge. Vocal and Instrumental Music receive particular
attention. Pupils furnish only a pair of heavy blankets.
Next term opens January 6th, 1875.
Write for Catalogue to
22v6-1v ELWOOD COOPER,
President Board of Directors.

HOP ROOTS FOR SALE.

I have a lot of choice HOP ROOTS, and also healthy
BLACKBERRY SETS for sale at LOWEST RATES.
Orders may be addressed through DEWEY & Co., of the
Rural Press, San Francisco; ROBT. WILLIAMSON, Capital
Nurseries, Sacramento; or to me,

CALVERT T. BIRD,
San Jose, Cal.

YOSEMITE HOUSE, STOCKTON, CAL.

JAMES COLE, Proprietor.

This House contains all modern improvements; Sa-
loons, Bath Rooms and Telegraph.

The only first-class Hotel in Stockton.

**Brittan, Holbrook & Co., Importers of
Stoves and Metals, Tinners' Goods, Tools and Machines,
111 and 113 California, 17 and 19 Davis streets, San Fran-
cisco, and 178 J street, Sacramento**

For the very best Photographs go to BRAD-
LEY & RULOFSON'S GALLERY, with an "Elevator."
429 Montgomery street, San Francisco. 2v7-6m

W. L. CHURCH, formerly newspaper agent, will
please address this office.

Railroads.

Chicago and Northwestern Railway.

Miles in Operation:

Illinois Division.....	486.5
Iowa ".....	432.8
Wisconsin ".....	535.4
Michigan ".....	168.7
Minnesota ".....	291.8
Dakota ".....	38.5

Total Miles.....2,003.7

IN CONNECTION WITH THE

Central and Union Pacific Railroads,

—THIS IS THE—

PIONEER LINE

Between the Pacific Coast and the

EAST,

And was the first to connect with the great
Pacific roads, and form the

OVERLAND ROUTE.

THIS LINE IS THE

Shortest Rail Line

—BETWEEN—

OMAHA and CHICAGO.

The track is of the

BEST STEEL RAIL,

And is well ballasted, and as free from dust as
a road can be made; the bridges are strong and
durable, and all the appointments are first-
class in every respect.

The trains that run over this road are made
up of elegant

**New Pullman Palace Drawing Room and
Sleeping Coaches,**

Built Expressly for this Line,

Luxurious, well lighted and well ventilated
Day Coaches, and pleasant lounging and smok-
ing cars; all built by this company in their
own shops. The cars are all equipped with the

Miller Safety Platform,

—AND—

PATENT BUFFERS AND COUPLINGS,

WESTINGHOUSE SAFETY AIR BRAKES,

And every other appliance that has been de-
vised for the safety of passenger trains. All
trains are run by telegraph, and are so regular-
ly on time that one can safely set his watch by
their arrivals or departures.

IN A WORD, THIS

Great California Line

Has the

BEST AND SMOOTHEST TRACK,

AND THE MOST

Elegant and Comfortable Equipment

Of any road in the West, and has no competi-
tor in the country. It is eminently the favorite
route with Californians traveling East, and is
acknowledged by the traveling public to be the
popular line for

Chicago, New York and all Eastern Cities.

Through tickets by this favorite route can be
procured at all offices of the CENTRAL PACIFIC
RAILROAD, and at the office of the

CHICAGO AND NORTHWESTERN RAILWAY,
306 Montgomery street.

H. P. STANWOOD, Gen. Ag't for Calif'na.

M. HUGHITT, W. H. STENNETT,
General Sup't. Gen. Passenger Ag't,
CHICAGO. CHICAGO.
10v8-1am-ly

Miscellaneous Notices.

J. D. Yost, San Francisco. H. S. CROCKER, Sacramento

H. S. CROCKER & CO.,

IMPORTING STATIONERS

—AND—

General Job Printers.

401 and 403 Sansome St., S. F.

PARTICULAR ATTENTION PAID TO

Manufacture of Blank Books.

BANK AND INSURANCE WORK

A SPECIALTY.

23v8-3m-16p

SANBORN & BYRNES.



Mechanics' Mills, Mission Street,

bet. First and Fremont, San Francisco. Orders from
the country promptly attended to. All kinds of Stair
Material furnished to order. Wood and Ivory Turn-
ers. Billiard Balls and Ten Pins, Fancy Newels and
Balusters. 25v8-8m-bp

THE ALDEN

Fruit Preserving Company OF CALIFORNIA.

Is now prepared to sell rights and furnish the necessary
machinery for using the "ALDEN PROCESS," ac-
knowledgeed to be the best method known for
preserving Fruits, Vegetables, Meats, etc.

For full particulars call at the company's

Office, 426 Montgomery St., S. F.

G. W. DEITZLER, President.

W. M. WHERRY, Vice President.

FRANK PYLE, Sec'y and Sup't.

BANK OF CALIFORNIA, Treasurer.

11v7-6m

Hooper's South End Grain Warehouse.

Japan and Townsend Streets.

SAN FRANCISCO, July, 1874.
I beg to inform you I have leased the above first-class
Fire-Proof Brick Warehouse, now being erected by Geo
F. Hooper, Esq., and will be ready to receive storage on
the 1st of August. This warehouse offers superior induc-
ements to parties desiring to store grain and flour, as it is
situated on the Water Front, and on the line of the C. P.
R. R. and S. P. R. R. It is well ventilated, rat proof, and
combines all the modern advantages and improvements
Yours respectfully, JOHN JENNINGS.
Advances and insurance effected at the lowest rates.
Storage taken at lowest current rates. 4v8-ft

AMERICAN SWEET CHESTNUT TREES.

Thirty Thousand American Sweet Chestnut Trees for
sale cheap, in lots to suit, at Room 32 Merchants' Ex-
change, San Francisco, where samples may be seen.
The trees are two years old, and in prime order.
Will be delivered either in this city, Oakland or Sacra-
mento. These trees are valuable for nuts, timber,
shade trees or lawn trees; and are preferred by many to
any of the foreign varieties. 1t

SOMETHING NEW.

Every business man should have one of those neat
and durable Vulcanized Rubber Stamps, to mark
their merchandise, stamp their envelopes, &c. Also,
a name stamp for marking their clothing and cards
with genuine indelible ink. Send your orders to

FRANK H. WING,

Room 14, 608 Market street, San Francisco.

Printing Wheels only \$6.

25v8-1m

COMPTON & BINFORD,

REAL ESTATE BROKERS.

Employment and Intelligence Office, Horse and
buggy free to see property. Offices at Compton, and
at corner of Court and Spring streets, Los Angeles, Cal.
25v8-ly

CENTINELA COLONY

LOS ANGELES CO., CAL.

SIX MILES WEST OF LOS ANGELES, CAL.

The unparalleled success of the

LOMPOC COLONY,

SANTA BARBARA COUNTY,

Has induced the "Centinela Land Company of Los An-
geles" to subdivide and place in market for sale and
settlement, under the direction and management of
the "California Immigrant Union," of San Francisco,
the "Centinela and Sausal Redondo" Ranches, contain-
ing Twenty-five Thousand Acres of Beautiful Valley
Land, located seven miles west of the city of Los An-
geles, and extending to and fronting on the Pacific
Ocean. There is now on the tract an orchard of about
three hundred acres, containing Orange, Lemon, Lime,
Fig, Walnut, Almond and Olive trees, and a nursery of
young Orange and Lime Trees. Some of the Orange
and Lime trees are in bearing. The tract will be sub-
divided in twenty, forty, eighty, one hundred and sixty-
acre farms, and sold upon easy terms and long credits.

Auction Sale of Town Lots

—AND—

5, 10, 20 and 40 ACRE FARMS.

WILL COMMENCE ON

Monday, Jan. 18, 1875, at 12 o'clock, M.

And continue Five Days. The sale will take place on
the Rancho. Parties desiring to purchase should be on
the ground a few days prior to the sale, in order to ex-
amine the property. Title—United States patent.

SITUATION.

"Centinela," with the addition of the "Sausal Re-
dondo," contains 25,000 acres. The boundary of the
Rancho commences three and a half miles from the
city limits of Los Angeles, and extends to the Pacific
Ocean.

TOPOGRAPHY.

"Centinela" is made up of one broad, level, fertile
valley, of over twenty thousand acres, and beautiful
fertile rolling hills near the ocean.

SOIL.

The soil is an exceedingly fertile loam, and is, with-
out exception, the richest and most productive in
Southern California. Its vicinity to the ocean insures
a crop without irrigation. Excellent wheat has been
raised for the last two years upon the hills adjoining
the ocean. This wheat field contains 1,000 acres, and
covers the lightest soil upon the Rancho. There is no
alkali or barren land.

SEMI-TROPICAL FRUITS.

There are a few bearing orange and lime trees upon
the Centinela, and the fruit they produce is of the
largest and finest quality. There is an orchard con-
taining 6,000 orange trees three years old, and 1,700
lemon, lime and lemon trees. The almond, lime and
lemon trees will bear fruit in 1875. The orange trees
will bear in five years. There are 7,000 three-year-old
orange trees in the nursery near the orchard. Fig,
pepper and gum trees grow without irrigation. The
entire orchard has been taken care of by three men with
six horses. The orchard will be kept undivided by
the company, to save the expense of each shareholder
having a few trees to take care of. Each share will
entitle the owner to about 15 trees in the orchard and
about the same number in the nursery. The almond,
lime and lemon trees will yield an immediate return.
In five years each orange tree will produce \$20 per an-
num, or \$300 per share for those now planted. There
are flowers in the garden in bloom every day in the
year.

SHEEP.

A flock of about 14,000 sheep will be kept undivided,
to save expense to the shareholders. This will give
about 30 sheep to each share. The sheep will produce
in increase and wool over \$2 each, yearly, over ex-
penses. They will be grazed upon outlying and un-
sold lands of the company. The "No-fence" Law is in
force in Los Angeles County.

CLIMATE.

The climate of the "Centinela" is without exception
the finest and most equable in the world. It varies
but little throughout the year. The mean temperature
is about 60 degrees. The mercury falls but little below
60 in winter and rises but little above 60 in summer.
You sleep under one pair of blankets and with your
bed-room window open every night in the year.

AGRICULTURE.

The soil of the "Centinela" is admirably adapted for
all kinds of grain, vegetables and fruit.

WATER.

The Centinela creek rises upon the Rancho and runs
through the northern portion of the tract. It affords
an abundance of clear spring water. The source of the
Centinela creek consists of several natural artesian
springs, showing that artesian water can be obtained
by boring.

THE TOWN.

A square mile is laid off at an eligible point on the
tract, with lots 31x135; avenue 100 feet, and streets 80
feet wide. A stream of water can be brought in so as
to supply every lot with crystal, cool, sweet water.
One of the forty-acre tracts is set apart for a College
and Farm School, and there will be a Ten-acre Park on
each of the four sides of the town, and Four Blocks in
the center of the town for Public Buildings, Schools,
etc. A large lot will also be set apart for each Reli-
gious Denomination, and a block given for the erection
of a large hall by the different Fraternal, Grange and
Temperance Societies.

FARE.

Parties desiring to visit the Rancho can take the 8:10
A. M. train of the Southern Pacific Railroad to Soledad,
thence by Coast Line Stage to Los Angeles; by 4 P. M.
train to Bakersfield, thence by stage to Los Angeles; or
by Pacific Mail Co.'s and Goodall, Nelson & Perkins
steamships direct to Los Angeles, where conveyances
can be had to go to the Rancho free of charge.

RAILROADS AND WHARF.

The Company intend building a wharf to enable
Steamships from San Francisco and other places to
land passengers on the tract. A narrow-gauge railroad
will be built from Los Angeles to the wharf, a distance
of about 12 miles. The Main Street and Agricultural
Park Railway will soon be built to the park, about
miles from the tract. This railway will be extended to
the tract as soon as the settlement will justify it

Apply to

W. H. MARTIN
General Agent California Immigrant Union, 534 Califor-
nia street, between Montgomery and Kearny streets,
San Francisco, to TEMPLE & WORKMAN, Bankers,
or Gen. SHIELDS, Los Angeles, or O. L. ABBOTT,
Corresponding Secretary State Grange Immigrant Aid
Association, Santa Barbara.

P. S.—A second sale will take place on the Rancho,
commencing on Monday, the 8th of March, 1875.

Further particulars will be furnished by the officers
and directors of the Centinela Land Company, of Los
Angeles, who are: F. P. F. Temple, President; F. P.
Howard, Vice-President; J. S. Slauson, Los Angeles
County Bank, Treasurer; J. M. Griffith, of Griffith,
Lynch & Co.; Gen. J. H. Shields; O. W. Childs; D.
Freeman, on the Rancho; W. H. J. Brooks, Secretary.

AGRICULTURAL NOTES.

BUTTE.

GRAIN AND CATTLE.—Butte Mercury Dec. 25: We had a visit this week from T. A. Rogers, who lives in Hamilton township, about six miles from Biggs'. Mr. R. is engaged in farming; his ranch contains about 1,000 acres, some 700 of which are sown to wheat. He states that the grain is at least a month ahead of anything he ever saw at this season of the year before. Some of it on Butte creek is six inches high and makes a thick carpet over the ground. He thinks the frosts have done good in checking its too rapid growth, and will cause it to take deeper root, thereby fitting it the better to endure the heat and drought of early summer.

Mr. Lowe informs us that the stock running on the plains is in better order than he ever saw it during any previous winter. Some of his neighbors' sheep, even the ewes, that are usually poor at this season, will sell for mutton. The plains are covered with grass; and cattle after eating a few hours, get full and lie down, as they do in April. Every grain-field bids fair to yield a large crop, and there are thousands of acres more than last year sown. It is believed that the storms yet to come, even if they are more severe than usual, will not retard the growth of either grass or grain.

GRAIN SHIPMENT.—Record, Dec. 26: General Bidwell has shipped during the week 100 car loads, or, 1,000 tons, of wheat to San Francisco. Cars and engines have been busy running to and from his extensive warehouses and mills during the week. This is indeed a large shipment of wheat; but does not embrace the crop of the Chico farm. The General yet has sufficient on hand to run his mills until another harvest, and, should he see proper to sell, will make other large shipments. The price received for the grain is \$25 per ton, the single shipment amounting to \$25,000. To load these cars with the present facilities, requires the service of ten men for ten days.

CONTRA COSTA COUNTY.

SHERMAN ISLAND GRAIN.—Antioch Ledger, Dec. 26: Of the fourteen thousand acres of arable land comprising Sherman island, it is estimated that ten thousand acres are already sown to wheat and barley. Several hundred acres of volunteer grain stand six inches high. There has been but one break of any importance in the levees, and that was speedily repaired. The levees are said to be in better condition than ever before and, altogether, the prospects of this island are quite flattering. The rapid growth of the grain, which results in a too heavy growth of straw, is checked by feeding down with sheep, large numbers of which are now upon the island.

FAVORABLE FOR FARMERS.—The farmers tell us that they are two months earlier with their work than last year. The early soaking rains prepared the soil for plowing and the weather has since been such as cause no interruption of the work. Most of the ground will be seeded before the first of January, which is quite unusual. The grain sown before the rains is looking healthy and vigorous, is of a dark green color with large strong stocks and wide blades. The present prospects are good.

NEVADA.

APPLES.—A correspondent of the Grass Valley Union writes from San Juan as follows: Last fall there were hundreds of apples allowed to rot on the ground in the orchards round town, for want of people to take them away. In fact it seemed too bad to have them waste in such a wholesale manner. Now how different! You can't get a decent apple for less than two or two and a half cents per pound, though there is plenty of them at that price. But a person can't help but think what a contrast; two months ago they could be had for the taking, but now a bug's price is asked for them. Ah, well, "tis either feast or famine," and this is only another of the long chain of inequalities we have to encounter.

SANTA CRUZ.

PROSPECTS.—Watsonville Pajaronian, Dec. 24: The weather for the past week has been cold and clear, with no indications of rain. A heavy frost every night and days as warm as an Eastern summer. Green grass does not seem to be affected by these cold nights, and cattle are becoming fat with the rank, rich feed. Although the soil is now a little dry for plowing, much land has been plowed and much grain has been sown. The farmers are making ready for a heavy rain storm, which will undoubtedly come within the next two weeks. The residents of the Pajaro valley are, whether the present is a dry or wet season, sure of excellent crops.

BETTER SUGAR.—The two California sugareries, the larger being located at Sacramento, and the smaller in the county of Santa Cruz, are, we learn, preparing to plant more beets than ever before. The business has become profitable and can be enlarged to an almost unlimited extent. The people of San Jose, Marysville and Petaluma talk of organizing for the construction of a sugarie at their respective places, but they do not appear to have much stomach for such undertakings.

SAN JOAQUIN.

GRAPES VS. WHEAT FOR PROFIT.—To dispose advantageously of a portion of the grape product of San Joaquin valley the present year led the proprietors of some small vineyards to threaten the destruction of their vines. This would be unwise and, perhaps, was never seri-

ously intended. Grape culture is doubtless one of the most profitable branches of rural industry, far more so than the growth of wheat or other cereal crops. The Democrat tells that in Sonoma two and a half to three tons may be relied on as an average yield, one year with another, and the fruit is worth from \$20 to \$30 per ton according to quality. As high as ten tons have been taken from an acre in that county, but that is altogether exceptional. Say that the average yield is two tons and a half and the worth of the crop \$20 per ton, (the lowest estimate given) the average worth of the product, one year with another is \$50. The average yield of wheat will probably not exceed twenty bushels to the acre. That is a high estimate. At \$1 40 per hundred pounds, the value of twenty bushels would be \$16 80, thus requiring the product of about three acres of wheat to be equal in value to one acre of grapes. The wheat crop is uncertain, while the yield of the vineyard is comparatively sure. The grape crop in San Joaquin county and valley, and in the adjoining mining counties, will, we believe, average quite as large as in Sonoma. In the latter county, however, much attention has been given to the best means of utilizing the fruit, something which claims the special consideration of parties in other sections of the State. We have heard it suggested that it would pay to raise grapes to fatten hogs, and we have been told of an instance where the fruit has been successfully used for that purpose. The yield, in weight, of grapes as compared with wheat is as 2½ to 1; but their comparative nutritious qualities we leave to chemists, or parties who may engage in feeding experiments to determine.

SOLANO.

CROPS AND THE WEATHER.—Vallejo Chronicle, Dec. 28: The grain which has been already sown is well advanced in this vicinity. On W. Carter's ranch it stands up thickly over the whole ground, and, he says, is further along than the crop of last year was the first of April. The protracted spell of cold weather is, however, cutting down the grass very severely. Many of the farmers who had plowed their ground at an early period have been waiting for more rain before seeding, so as to have more mellow soil for harrowing. Most of them probably now regret their delay, as the ground is growing drier, and the prospects of rain seems as remote as ever. In some places the ground has already begun to crack open. Farmers who have not their grain planted now will be late in getting it in, and their crops may suffer if they do not get late rains.

SONOMA.

WINE AND GRAPES.—Argus, Dec. 25th: The amount of wine made in Sonoma county this year is much larger than ever before, and its quality is better than usual. It is estimated that over one million gallons were made in Sonoma valley. The injury to grapes by the early rains was but slight. A large area will be planted with grapes in the vicinity of Santa Rosa this year. Fruit growers are planting plum and prune trees extensively. Many farmers are sowing barley instead of wheat this year. It is estimated that one-third of the entire potato crop of Bodega will be destroyed by the rot.

POTATOES.—About 50,000 sacks of potatoes are stored in this city. There are no new developments regarding the rot. Nearly all those that were not dug before the rain will be a total loss, and others are somewhat affected. Opinions are divided as to the character of the disease and the probability of its appearance next year.

THE FAIR OF THE SONOMA AND MARIN AGRICULTURAL SOCIETY for the year 1875, will commence on Monday the 4th, and end on Saturday the 9th of October.

CHEESE FACTORY.—Mr. William White of Bloomfield, who has 330 acres of land; 150 of which are under cultivation, is about to start a cheese factory on his place, that will, we think, prove of great advantage to those having cows in his locality. The factory is two stories high, with a basement, and is well adapted for the business. It will be supplied with all the necessary machinery and equipments, and when in full running order will have a capacity for the milk of 600 cows. We wish Mr. White success in his new enterprise.

TUOLUMNE.

GRAPES ON THE VINES.—Tuolumne Independent Dec. 26: Hundreds of tons of grapes are hanging on the vines in the vineyards about Columbia and other parts of the county, the owners not having the facilities for making them either into wine, brandy or raisins. It is a great loss to the owners as well as the county, that this waste should be permitted, when a few hundreds of dollars properly invested would change these grapes into hard coin. A wine and brandy manufactory and a patent dryer would use up every pound of fruit, and, besides giving employment to many, would scatter thousands of dollars among those owning small vineyards and orchards.

Mr. J. J. H. GREGORY, of Marblehead, Mass., has his annual advertisement in our columns. He was the original introducer of some of the best vegetables now found on every table. He comes this season with a new squash, and a number of tempting specialties, some of which are finely illustrated from engravings taken from photographs. The fact that so many of his varieties of seed are of his own growing, is a golden fact for farmers and gardeners.

WOODWARD'S GARDENS embraces an Aquarium, Museum, Art Gallery, Conservatories, Tropical Houses, Menagerie, Seal Ponds, and Skating Rink. Admission, 25 cents; children, 10 cents.

General News Items.

SHOOTING.—The emotional mania for shooting seems to be on the increase. Some woman is generally at the bottom of such trouble and not unfrequently does the shooting herself. The latest instance of such a case occurred in this city last week. A woman named Annie Smythe, shot Mr. M. G. Cobb, a lawyer of this city as he was passing along Washington street near Montgomery. The wound was at first thought to be fatal, but Mr. Cobb is now in a fair way for recovery. The woman has been arrested. The only cause assigned was a supposition on her part that he was mismanaging a land case in which she was interested, for which there was no reason whatever. It is charitably thought by many that the woman, who is a widow, was insane.

FATAL POLITICAL QUARREL.—Mr. Byerly, editor of the New Orleans Bulletin, having cast some severe reflections upon ex-Governor Warmoth, a challenge had passed, or was about to pass, when the two accidentally meeting in the street, Byerly knocked Warmoth down and jumped upon him. During the fight Warmoth drew a knife and stabbed his antagonist several times in the abdomen, from the effects of which he died the next day. Warmoth has been arrested. Byerly was a Northern man and a political opponent of Warmoth.

HAWAIIAN ANNEXATION.—Washington newspaper correspondents state that the General Government is striving to induce the King of the Hawaiian islands to use his influence for annexation. Undoubtedly annexation would be of great advantage to the Sandwich islands, and incidentally to California. The islands would also be of advantage as a way station to the nation at large.

TWO BOYS CHARGED WITH PARRICIDE.—Two sons of Jacob Nerswinder who lived 15 miles north of Columbus, Ohio, have been arrested charged with having murdered their father and then burned his body. The boys are fourteen and eighteen years old. The family deserted their house, and the remains of Mr. Nerswinder have been found among the ashes in the fire place.

P. M. S. S. INVESTIGATION.—The examination of Mr. Irwin before the Congressional Investigation Committee proceeds slowly. Mr. Irwin don't "pump" as well as it was thought he would. It has transpired, however, that large sums of the company's money went into the hands of the Congressional postmaster, but for what purpose, or where it went subsequently, has not transpired.

THE GERMAN CHURCH CONTROVERSY.—It is reported that Queen Victoria has written to Emperor William urging him to compromise the ecclesiastical conflict in Germany. The report is of doubtful authority, and Germany is generally supposed to be pretty well calculated to mind her own business, and the Catholics don't compromise worth a cent.

DROWNED.—Wm. Farmer was drowned while trying to cross the Eel river at the Fort Seward ford, on the 29th of November. He started to cross the river on horseback, and his horse failed or refused to swim, and Farmer, who could not swim, was washed from his back and drowned.

EMIGRANT SHIP BURNED.—News has been received of the burning of the English emigrant ship "Cospatrick," while on the voyage from London to New Zealand. Four hundred and sixty lives were lost. Further details are anxiously awaited. The vessel and cargo are a total loss.

CUBAN ANNEXATION.—A letter to the Diario reports that strong efforts are being made in Washington to obtain the recognition of Cubans as belligerents. The letter couples the names of Aldama and Collector Casey with these efforts, and says that the object is to throw on the market Cuban bonds held in Washington.

DEATHS LAST WEEK.—During the last week 79 persons died in this city, 51 males and 28 females. Of those 68 were white, 1 colored, and ten copper colored persons. There were 3 casualties, 1 homicide and 17 persons died in public institutes.

GERRITT SMITH DEAD.—This well known philanthropist died suddenly in New York on Monday last, of apoplexy. He had just arrived in that city to spend the Christmas holidays with his friends.

The great ship "Three Brothers" went to sea on Monday with 4,000 long tons of wheat in her hold. She was taken out by two tugs. This is the most magnificent specimen of naval architecture that carries sails.

HORSE BEEF.—The horse shambles of Paris supplied the public during the first quarter of the present year with nearly 630,000 pounds of meat, the result of the slaughter of 1,555 horses, mules and asses.

FATAL ACCIDENT.—Patrick Smith, foreman and section man on the California Pacific Railroad at Napa Junction, stumbled across the track on Monday morning with such force that he died almost instantly.

CALIFORNIA RIVERS.—The proposition pending before Congress to expend a small sum of money to improve California rivers ought to receive favorable consideration. But \$57,000 are required for the Sacramento River.

RAILWAY ACCIDENT IN ENGLAND.—Several persons were killed and many wounded by a railroad accident at Woodstock on Thursday last. Some of the latter are fatally wounded.

Industrial Items.

THE NAVY YARD.—Eighty-two men are employed at the present time in the construction department at the navy yard, as follows: Ten men are engaged in boat building in that department. There are twenty-five blacksmiths, twenty-two ship joiners, three block makers, five spar makers, two pattern makers, seven plumbers, and eight in the saw mill.

AN INDUSTRIAL COLONY.—Westminster Colony is still on the march of improvement. Several houses are nearly completed, and were it not for the scarcity of lumber and carpenters others would at once be erected. The school is flourishing, the plows are busy, the corn crop excellent, and the number of trees to be planted this season will be greatly increased.

STEAMSHIP EXPENSES.—Some idea of the expenses attending the trial trip of a large steamship may be had when it is known that the trial trip of the "City of Pekin" to Newport with a large number of guests, cost \$50,000. Delmonico's bill for the entertainment was about \$25,000.

The estimated cost of a ship canal from Stockton to Disappointment slough, eleven miles, is \$1,117,000. Such a work is greatly needed, and would be of immense benefit in opening up the San Joaquin valley.

Twenty tons of coal per day are used at the Starr mills, in Vallejo, which at present rates costs about \$130. One vessel is kept constantly running to supply fuel for this great flouring establishment. Fifteen car-loads of wheat are ground every twenty-four hours.

IRON WORKS AT SANTA CLARA.—An effort is being made to get up a joint stock company at Santa Clara, with a capital of 100,000, for the purpose of obtaining the location of J. T. Walker & Co's iron works there.

The Anaheim branch of the Southern Pacific Railroad is now within seven miles of Anaheim. The track will be completed by the 1st of January.

A NEW INDUSTRY.—One hundred and sixty acres are being planted to peppermint at Milpitas, Santa Clara county, by W. Boete.

Three hundred and fourteen men are employed at the gunpowder works near Santa Cruz.

The Sacramento beet sugarie will this year plant from 1,500 to 2,000 acres in beets.

There are eight vessels contracted to be built on Humboldt bay.

The Pacheco road passes over the Coast range has been completed, at a cost of about \$18,000.

FROSTS AND FOGS.—During the past week the valleys of the State have nearly all been visited by heavy fogs, which have extended for hundreds of miles, lifting at slight intervals only to descend again like a pall, shutting out the view of distant objects. It is noticed as something remarkable that severe frosts have accompanied these fogs. This phenomenon occurred all through the upper San Joaquin valley and in the foothills of the mountains. The same was true of Sutter county, to which circumstance allusion is made in the Yuba City Banner as follows: "The continued fogs and white frosts, coming together night after night, is what beats us. The frosts are very white, and it is only occasionally that ice is formed, and then only on very small pools of water. The fogs are in before sundown and continues until near noon, sometimes lasting all day. The white frosts gather during the thickness of the fog." As might be expected from the moist and chilly state of the atmosphere in the regions thus visited, there has been more than the usual amount of sickness. In the open plains, colds and influenzas are complained of.—Call.

PATENTS & INVENTIONS.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

[FROM OFFICIAL REPORTS FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.]

By Special Dispatch, Dated Washington, D. C., Dec. 29th, 1874.

FOR WEEK ENDING DEC. 15TH, 1874.

TIRE UPSETTER.—Quintus C. Tebb, Windsor, Cal.

WINDMILL.—William C. Nelson, Sacramento, Cal.

ALARM COMBINATION LOCK.—Henry W. Dilg, Portland, Oregon.

OVERALLS.—Cheung Quan Wo, S. F., Cal.

ARTIFICIAL STONE.—Achille Berard, Oakland, Cal.

TRADEMARK.

FOR COCOANUT PREPARATIONS.—The California Cocoonut Pulverizing Company, S. F., Cal.

The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue. NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & CO., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with perfect security and in the shortest time possible.

S. F. MARKET REPORT.

At Wholesale when not Otherwise Indicated.

Weekly Market Review.

DOMESTIC PRODUCE.

SAN FRANCISCO, Wednesday, Dec. 30, 1874.

The week ending to-day has been more one of holiday pleasures than of business. Not only was Christmas given to amusement and general diversion from trade and commerce, but the days preceeding and following were also a time of relaxation from business, and devoted to fun and frolic. All the banks and most of the wholesale houses were closed Saturday according to an understanding previously had and no sessions of the Produce Exchange nor Stock Board were had, while it will be yet some days before the business portion of the city puts off its holiday appearance. Yet the receipts of the principal articles of produce from the country during Christmas week were fair, being 10,008 bbls of Flour; 336,088 cts of Wheat; 44,128 cts of Barley; 5,345 sks of Beans; 19,009 sks of Potatoes; 1,018 sks Onions; 13,160 gallons of Wine; 1,005 gallons of Brandy; 64,900 Oranges; 9,250 Lemons, and as many Limes.

The following is a statement of the receipts of domestic produce at San Francisco from July 1 1874 to Dec. 26, compared with the same period in the previous harvest year:

	1873-74.	1874.
Flour, qr sks.....	1,047,560	878,945
Wheat, 100 lbskss.....	5,990,980	6,364,483
Barley, do.....	698,219	859,866
Oats, sks.....	154,164	206,079
Potatoes, sks.....	420,837	409,296
Corn, sks.....	52,453	34,900
Rye, sks.....	11,005	34,317
Buckwheat, sks.....	699	1,483
Beans, sks.....	47,153	57,137
Bran, sks.....	55,937	65,139
Hay, tons.....	29,742	36,220
Salt, tons.....	4,427	4,412
Wool, bales.....	49,612	54,395
Hides, no.....	65,690	81,423
Raisins, 20 lb sks.....		2,781

The market for the great staple, Wheat, has remained firm, with comparatively little offering, but the prices show no improvement. At New York, the export demands for Wheat have slackened, and there is likely to be no revival until after the holidays, while prices are a trifle lower; but the export movement there is much restricted by the absence of freight room, all the steamers having more freight now engaged than they can transport in the next two months, and rates of freight are there steadily advancing. The Liverpool Wheat market is given to-day at 9s 10d to 10s 2d for average California and 10s 4d to 10s 9d for Club. Beerbohm's telegram reports a light attendance at Mark Lane and a steady feeling for cargo parcels at 46s to 46s 6d per quarter at San Francisco. Tonnage continues to arrive freely. We have had nearly fifty ships, barks and schooners from distant ports this month, and others are fully due. Nearly all of these are suitable for Wheat, which are all disengaged, and said to be the largest number disengaged ever in this port. There are 42 vessels in port under engagement, representing 49,300 tons of tonnage, with a capacity for 1,480,000 cents of Wheat. The great California ship Three Brothers again sailed from here for Liverpool Saturday morning, with 89,600 cents of Wheat, valued at \$140,400, the largest cargo ever dispatched from this port. The ship Dauntless, which sailed the same day for New York, had as part of her cargo 340 tons of Barley, besides 3,000 bbls California Syrup and other cargo, amounting in all to \$160,000.

Barley. Sales Thursday were 1,400 sks coast feed, \$1.22½; 2,400 do brewing, \$1.32½; 800 bay brewing, \$1.42½; 1,500 do in two lots, \$1.45; 500 do strictly choice, at the extreme price of \$1.50. On Saturday 1,000 sks feed sold for Sacramento at \$1.25. On Monday 1,000 sks coast feed sold at \$1.25; 900 sks bay feed, \$1.30; 1,500 sks coast brewing, \$1.30; 1,000 sks bay brewing, \$1.45 to \$1.50 per 100 lbs.

Beans are quoted as follows for prime lots: Small white, 3½ to 3¾; small butter, 4½; large do, 5c; bay, 2½ to 3c; pink and red, 2½ to 2¾ per lb.

Eggs have remained scarce and high, California selling at 45 to 47½ per dozen, and small lots choice bringing the extreme price of 50c, which rates may continue until after the holidays.

Flour receipts from the interior continue liberal, and a large part thereof goes aboard ship. The city millers also have a good jobbing demand for extras at \$5.12½ per bbl.

Fruits to Liverpool are unchanged, but many of the vessels load on owners' account, and most charters that are made are kept private. The rate is nominally £3.

Game has not been in great demand, and prices ruled low.

Oats has remained firm for jobbing demand at \$1.40 to \$1.75 for the different grades. A sale of 500 sks choice Oregon brought \$1.70 per 100 lbs, and 300 do, \$1.65, while 200 sks choice Feed brought \$1.75 per ctn.

Onions which were weak at the beginning at \$1 to \$1.10 per 100 lbs for good to choice, are bringing \$1.10 to \$1.12½ for choice Yellow. On Monday 75 sks good Alviso sold for \$1, and 100 do choice Bay, \$1.10 to \$1.12½ per ctn.

Potatoes have sold throughout the week at \$1.75 per 100 lbs for choice sound lots, at which price there is no difficulty in selling; particularly choice Pigeon Point or Humboldt. But there are so many of an inferior, rotten character, that the prices greatly vary. Good Tomatoes bring \$1.65; fair Petaluma, \$1.50. Most round lots have to be picked over, and many are worthless. Sweet sell for \$2 per ctn.

Poultry. Notwithstanding the immense quantities of all kinds sent in for the holiday demand, kept up in price until Christmas, when rates dropped off, and

commission merchants could not dispose of all their stock. Dressed Turkeys were received by hundreds of thousands of pounds, and hens, roosters and broilers were for a day almost unsalable at \$1 to \$1.50 for hens, \$1.50 to \$2 for roosters, and \$1 to \$1.50 for broilers; Ducks, \$1 to \$1.50 per doz; Turkeys, alive, 15 to 16c; dressed, 14 to 16c per lb; Geese, \$2.25 to \$2.50 per pair.

Rye is quotable at \$1.20 per ctn, at which the last sales were made.

Seeds. Mill price for Flax is 3½c for clean, on 30 days; Mustard 1½ to 2½c for White, and 2 to 3c per lb for Brown; Canary, 9 to 10c; Alfalfa, 17 to 18c; Timothy, 7c per lb.

Wheat has remained firm throughout the week. On the 24th among the several lots that changed hands, two went at the extreme figure of \$1.57½ per 100 lbs; 10,000 sks Shipping sold at \$1.55; 20,000 do Choice, at \$1.57½; 10,000 do, at \$1.52½; 2,000 do Milling, at \$1.55. Saturday trade was suspended. Monday, 10,000 sks Shipping sold at \$1.52½, the market remaining firm, with but little offering.

DOMESTIC PRODUCE.

WEDNESDAY M., Dec. 30, 1874.

Beans, small wh. do	3½ to 3¾	Mission	—
do, butter	4½ to 5	Salinas	—
do, bayo	2½ to 3	Bodega	1.40 to 1.75
do, pink	2½ to 3	St. Barbara	—
do, pea	3½ to 4	St. River	—
BROOM COGN.			
Per lb	5 to 8	Liverpool	10 to 18
COTTON.			
Cal. 1874	15 to 15½	do goblbers	12 to 14
DAIRY PRODUCE.			
Butter, Cal. choice	40 to 45	do dressed	15 to 19
do, good	35 to 40	Hens, per doz	6.00 to 7.00
do, inferior	30 to 35	Roosters, young	5.00 to 6.00
do, milk	30 to 35	Broilers, small	2.50 to 4.00
do, picked	35 to 40	do large	4.00 to 5.00
do, Eastern	12½ to 15	Ducks, tame, doz	6.00 to 8.00
EGGS.			
Eggs, Cal. fresh	40 to 47½	Geese, per pair	2.00 to 2.50
do, Oregon	30 to 35	Hare, per doz	2.00 to 3.00
do, Eastern	25 to 30	Sale, per doz	1.75 to 2.00
do, Ducks	40 to 42½	Quail, per doz	1.50 to 1.62½
FISH.			
Bran, per ton	—	Mallard Ducks	2.00 to 3.00
Middlings	—	do small	75 to 1.25
Hay	—	Wild Geese, gray	—
Straw	—	do white	2.00 to 3.00
Oil cake meal	—	Dogies, per dozen	50 to 75
Corn Meal	—	Prairie Chickens	—
WHEAT.			
Extra	4.75 to 5.12½	Rabbits	1.25 to 1.50
Superfine	4.50 to 4.75	do tame	5.00 to 6.00
do, second do	4.00 to 4.25	Venison, per lb	6 to 7
do, third do	3.50 to 3.75	Cal. Bacon, light	—
do, fourth do	3.00 to 3.25	do medium	—
MEATS.			
Beef, fresh	—	do heavy	13 to 13½
do, second do	—	do light	13½ to 14½
do, third do	—	Hams, Cal.	13½ to 14½
do, fourth do	—	do Duheid, ch	—
LAMB.			
do, fresh	—	do Plankton	15½ to —
do, second do	—	do Arm ur	15½ to —
do, third do	—	do Boyd's	—
do, fourth do	—	do Stew	8 to 10
PORK.			
do, fresh	—	do Eastern Shouls	9 to 10
do, second do	—	do new hams	15½ to 16
do, third do	—	Cal. Smoked Beef	9 to 10
do, fourth do	—	do	13½ to 16
GRAIN, ETC.			
Wheat, coast	1.40 to 1.50	Alfalfa, Cal.	15 to 16
do shipping	1.50 to 1.65	do California	18 to 20
do milling	1.50 to 1.65	Canary	8 to 10
Barley, coast	1.20 to 1.30	Oatmeal	6 to 10
do brewing	1.40 to 1.50	Flaxseed	3 to 4
Oats, ch. ice	1.40 to 1.50	Hemp	8 to 10
do common	1.20 to 1.30	do 2d quality	40 to 50
Corn, white	1.25 to 1.40	do 3d quality	30 to 40
do, yellow	1.20 to 1.30	do 4d quality	20 to 30
Buckwheat	2.00 to 2.25	do 5d quality	10 to 15
Rye	1.12½ to 1.20	Mustard, white	13 to 23½
HOPS.			
California, 1874	35 to 37½	Mustard, black	10 to 12
East. 7½ ch. ice	—	Mustard, green	10 to 12
MISCELLANEOUS.			
Reeswax, per lb	25 to 27½	Mustard, red	10 to 12
Honey in comb	15 to 22½	Mustard, white	10 to 12
do Strained	5 to 10	Mustard, black	10 to 12
Pulu	87½ to 1.10	Mustard, green	10 to 12
Onions	—	Mustard, red	10 to 12
Cal. Walnuts	19 to 11	Mustard, white	10 to 12
Peanuts per lb	6 to 7	Mustard, black	10 to 12
Chile Walnuts	8 to 9	Mustard, green	10 to 12
Peanut oil	13 to 14	Mustard, red	10 to 12
Brazil do	14 to 16	Mustard, white	10 to 12
Almond h'd shell	8 to 10	Mustard, black	10 to 12
do soft	15 to 22	Mustard, green	10 to 12
Filberts	17 to 18	Mustard, red	10 to 12
Cocoanuts, 1000	60 to 60½	Mustard, white	10 to 12
POTATOES.			
Sweet, per ctn	1.60 to 1.75	Mustard, black	10 to 12
Chiffon Covel	—	Mustard, green	10 to 12
H. M. Bay	30 to 50	Mustard, red	10 to 12
Purcon Ptn	1.40 to 60	Mustard, white	10 to 12
Humboldt	1.50 to 75	Mustard, black	10 to 12
Tomatoes	1.40 to 1.75	Mustard, green	10 to 12

do, good	35 to 40	Broilers, small	2.50 to 4.00
do, inferior	30 to 35	do large	4.00 to 5.00
do, milk	30 to 35	Ducks, tame, doz	6.00 to 8.00
do, picked	35 to 40	Geese, per pair	2.00 to 2.50
do, Eastern	12½ to 15	Hare, per doz	2.00 to 3.00
do, Ducks	40 to 42½	Sale, per doz	1.75 to 2.00
EGGS.			
Eggs, Cal. fresh	40 to 47½	Quail, per doz	1.50 to 1.62½
do, Oregon	30 to 35	Mallard Ducks	2.00 to 3.00
do, Eastern	25 to 30	do small	75 to 1.25
do, Ducks	40 to 42½	Wild Geese, gray	—
FISH.			
Bran, per ton	—	do white	2.00 to 3.00
Middlings	—	Dogies, per dozen	50 to 75
Hay	—	Prairie Chickens	—
Straw	—	Rabbits	1.25 to 1.50
Oil cake meal	—	do tame	5.00 to 6.00
Corn Meal	—	Venison, per lb	6 to 7
WHEAT.			
Extra	4.75 to 5.12½	Cal. Bacon, light	—
Superfine	4.50 to 4.75	do medium	—
do, second do	4.00 to 4.25	do heavy	13 to 13½
do, third do	3.50 to 3.75	do light	13½ to 14½
do, fourth do	3.00 to 3.25	Hams, Cal.	13½ to 14½
MEATS.			
Beef, fresh	—	do Duheid, ch	—
do, second do	—	do Plankton	15½ to —
do, third do	—	do Arm ur	15½ to —
do, fourth do	—	do Boyd's	—
LAMB.			
do, fresh	—	do Stew	8 to 10
do, second do	—	do Eastern Shouls	9 to 10
do, third do	—	do new hams	15½ to 16
do, fourth do	—	Cal. Smoked Beef	9 to 10
PORK.			
do, fresh	—	do	13½ to 16
do, second do	—	do	13½ to 16
do, third do	—	do	13½ to 16
do, fourth do	—	do	13½ to 16

do, good	35 to 40	Broilers, small	2.50 to 4.00
do, inferior	30 to 35	do large	4.00 to 5.00
do, milk	30 to 35	Ducks, tame, doz	6.00 to 8.00
do, picked	35 to 40	Geese, per pair	2.00 to 2.50
do, Eastern	12½ to 15	Hare, per doz	2.00 to 3.00
do, Ducks	40 to 42½	Sale, per doz	1.75 to 2.00
EGGS.			
Eggs, Cal. fresh	40 to 47½	Quail, per doz	1.50 to 1.62½
do, Oregon	30 to 35	Mallard Ducks	2.00 to 3.00
do, Eastern	25 to 30	do small	75 to 1.25
do, Ducks	40 to 42½	Wild Geese, gray	—
FISH.			
Bran, per ton	—	do white	2.00 to 3.00
Middlings	—	Dogies, per dozen	50 to 75
Hay	—	Prairie Chickens	—
Straw	—	Rabbits	1.25 to 1.50
Oil cake meal	—	do tame	5.00 to 6.00
Corn Meal	—	Venison, per lb	6 to 7
WHEAT.			
Extra	4.75 to 5.12½	Cal. Bacon, light	—
Superfine	4.50 to 4.75	do medium	—
do, second do	4.00 to 4.25	do heavy	13 to 13½
do, third do	3.50 to 3.75	do light	13½ to 14½
do, fourth do	3.00 to 3.25	Hams, Cal.	13½ to 14½
MEATS.			
Beef, fresh	—	do Duheid, ch	—
do, second do	—	do Plankton	15½ to —
do, third do	—	do Arm ur	15½ to —
do, fourth do	—	do Boyd's	—
LAMB.			
do, fresh	—	do Stew	8 to 10
do, second do	—	do Eastern Shouls	9 to 10
do, third do	—	do new hams	15½ to 16
do, fourth do	—	Cal. Smoked Beef	9 to 10
PORK.			
do, fresh	—	do	13½ to 16
do, second do	—	do	13½ to 16
do, third do	—	do	13½ to 16
do, fourth do	—	do	13½ to 16

do, good	35 to 40	Broilers, small	2.50 to 4.00
do, inferior	30 to 35	do large	4.00 to 5.00
do, milk	30 to 35	Ducks, tame, doz	6.00 to 8.00
do, picked	35 to 40	Geese, per pair	2.00 to 2.50
do, Eastern	12½ to 15	Hare, per doz	2.00 to 3.00
do, Ducks	40 to 42½	Sale, per doz	1.75 to 2.00
EGGS.			
Eggs, Cal. fresh	40 to 47½	Quail, per doz	1.50 to 1.62½
do, Oregon	30 to 35	Mallard Ducks	2.00 to 3.00
do, Eastern	25 to 30	do small	75 to 1.25
do, Ducks	40 to 42½	Wild Geese, gray	—
FISH.			
Bran, per ton	—	do white	2.00 to 3.00
Middlings	—	Dogies, per dozen	50 to 75
Hay	—	Prairie Chickens	—
Straw	—	Rabbits	1.25 to 1.50
Oil cake meal	—	do tame	5.00 to 6.00
Corn Meal	—	Venison, per lb	6 to 7
WHEAT.			
Extra	4.75 to 5.12½	Cal. Bacon, light	—
Superfine	4.50 to 4.75	do medium	—
do, second do	4.00 to 4.25	do heavy	13 to 13½
do, third do	3.50 to 3.75	do light	13½ to 14½
do, fourth do	3.00 to 3.25	Hams, Cal.	13½ to 14½
MEATS.			
Beef, fresh	—	do Duheid, ch	—
do, second do	—	do Plankton	15½ to —
do, third do	—	do Arm ur	15½ to —
do, fourth do	—	do Boyd's	—
LAMB.			
do, fresh	—	do Stew	8 to 10
do, second do	—	do Eastern Shouls	9 to 10
do, third do	—	do new hams	15½ to 16
do, fourth do	—	Cal. Smoked Beef	9 to 10
PORK.			
do, fresh	—	do	13½ to 16
do, second do	—	do	13½ to 16
do, third do	—	do	13½ to 16
do, fourth do	—	do	13½ to 16

FRUITS AND VEGETABLES.

WEDNESDAY M., Dec. 30, 1874.

FRUIT MARKET,		do Morocco,..... 3 00	4 00
Tahiti, Or. ½ M — @ —		do St. Peter..... —	—
Lima, do..... 40 00		45 00	45 00
Cal. do..... 15 00		40 00	40 00
Limes, ½ M..... 8 00		10 00	10 00
Cal. Lemons, ½ M20 00		30 00	30 00
Austrian do..... —		40 00	40 00
do Sicily, ½ b..... —		45 00	45 00
Bananas, ½ bunch 3 00		4 00	4 00
Coconuts, ½ 1000, 00 00		0 00	0 00
Pineapples, ½ dz..... —		40 00	40 00
Apples, ½ box..... 1 00		41 25	41 25
Cherries..... —		42 00	42 00
Blackberries..... —		42 00	42 00
do wild..... —		42 00	42 00
		do Morocco,..... 3 00	4 00
		do St. Peter..... —	—
		do Picked Fruit..... —	—
		Apples, ½ b..... —	5 40
		Pears, ½ b..... 10 00	12 00
		Peaches, ½ b..... 10 00	12 00
		Apricots, ½ b..... 12 00	14 00
		Pistachios, ½ b..... 12 00	14 00
		Pitts, ½ b..... 12 00	14 00
		do Extra, ½ b..... —	—
		Raisins, ½ b..... —	—
		Black Figs, ½ b..... —	—
		White, do..... 10 00	12 00
		Prunes..... 8 00	10 00
		do German..... 14 00	16 00
		Citron..... —	35 00

Agricultural Articles.

THE CALIFORNIA HARROW,

—MANUFACTURED BY THE—

Kimball Car and Carriage
Manufacturing Company,

Cor. Bryant and Fourth sts., San Francisco.



IN THE FIELD.

The California Harrow, large numbers of which we are now making, has seven distinct and well defined improvements possessed by no other Harrow, each of which saves both time and labor.

First—This Harrow has an easy seat and three wheels, all attached to the central section, on which the driver rides and manages the Harrow and team with ease and comfort.

Second—By means of but three levers the driver in his seat on the Harrow can raise the Harrow and himself on the wheels, and trot to and from the field, and without leaving his seat can let the sections down and proceed with his work.

Third—By the use of but one lever conveniently situated at the right side, the driver in his seat, and without stopping his team, can regulate the depth of the Harrow teeth in the ground, and can set them deep or shallow, as the conditions of the soil require. This meets a demand for harrowing Alfalfa or small grain, in the spring.

Fourth—This Harrow is made in three sections, connected by loose hinges. The driver, as he moves along on the field, can raise any one of the sections, and pass a tree or stump, or other obstacles, without interfering with the work of the other two sections.

Fifth—By the use of a brace made of a board but 3 feet long and 4x4 inches, let on the tops of the levers of the wings, this can be made a stiff Harrow, and the driver by lowering the lever at his right can throw his weight and that of the wheels and extra fixtures on and off at his pleasure.

Complete work can be done up to and all around trees, without changing the course of the team.

We build these Harrows of wood and tubular iron, making beautiful and very powerful Harrows, unaffected by exposure to the weather.

We have many number of letters in praise of these Harrows from farmers who have put them to practical use.



ON THE ROAD.

The KIMBALL CO. are the owners and sole manufacturers of the celebrated IMPROVED EAGLE HAY PRESS, which has become so popular the past few years. For further information send for circulars.

VINE AND FRUIT GROWERS,

TO RAISE LARGE CROPS

YOU MUST IRRIGATE.

To irrigate successfully, you must have the power that does not give out when the wind fails.

Laufkotter Bros. & Churchman's Horse-Power,



(PATENTED FEBRUARY 13TH, 1872.)

Never fails to supply more water than four or five Windmills, even supposing you had all the wind you want. It is also suitable for running light machinery, such as Herley Crankers, Corn Shellers, Fanning Mills, Grain Separators, or for Sawing Wood. They are never failing, cannot get out of order, easily worked, substantial, and always give satisfaction wherever they have been used. One horse can easily work two 6-inch pumps, with a continuous flow of water. Force Pumps, from 3,000 to 10,000 gallons per hour. WINDMILLS of all kinds manufactured to order. Wells bored, Windmills and Horse-Powers set in any part of the State, and repairing of all kinds done. Manufactured and for sale by

LAUFKOTTER BROS.,

v7-2m-3m Cor. J and 10th Sts., Sacramento.

Farmers and Threshers

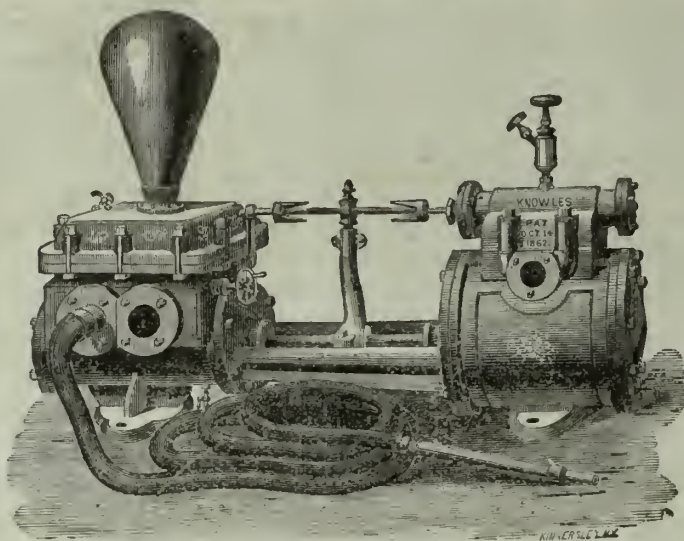
WISHING TO HAVE

STRAW BURNING ENGINES

For next season must engage them soon, as most of those now building are already sold. Threshing Engines for Repairs should be sent in now. A number of second-hand Engines—taken in exchange for "Straw Burners"—for sale cheap. For particulars and prices, address:

H. W. RICE,
2393 am Haywood, Alameda County.

KNOWLES' PATENT STEAM PUMP.



It has no Cranks or Fly-Wheel, and has no dead points where it will stop, consequently it is always ready to start without using a starting-bar, and does not require hand-work to get it past the center. Will always start when the steam cylinder is filled with cold water of condensation.

CENTRAL PACIFIC R. R., OFFICE OF THE GEN'L MASTER MECHANIC.

A. L. FISH, Esq., Agent of the Knowles Steam Pump—Dear Sir: In reply to your inquiry as to the merits of the Knowles Steam Pump, in use upon this road, I will say that it gives me great pleasure to report that they have performed their work well whenever called upon. In no instance have they failed. We have now over 30 of them in use on this road as fire engines, and pumping water for shop and station use. I consider the Knowles Steam Pump the best in use, and prefer it to any other.

Yours, truly,

A. J. STEVENS, General Master Mechanic.

A. L. FISH, Agent Knowles' Steam Pump—Dear Sir: In answer to your inquiries, we state that the highest award for Steam Pumps at the Eighth or last Mechanics' Fair in San Francisco, was a FIRST PREMIUM and Diploma, awarded to Knowles' Patent Steam Pump, as published in the Official List September 23d, 1871.

A. S. HALLIDIE, President Board of Managers.

W. H. WILLIAMS, Sec'y Board of Managers Eighth Industrial Exhibition, M. I.

WE BUILD AND HAVE CONSTANTLY ON HAND

The Largest Stock of Pumps in the World,
And for Every Conceivable Purpose.

SOLE AGENT ON THE PACIFIC COAST FOR THE

CLAPP & JONES SUPERIOR STEAM FIRE ENGINE,
Challenging the World!

THE CELEBRATED BOOMER PRESS,

For Wine, Cider, Lard, Paper, Wool, Hops, Hides, Tobacco, Rags, etc.—the Most Powerful in Use.

A. L. Fish, Agent,

Nos. 9 and 11 First Street, San Francisco, Cal.

P. S.—All kinds of new and second-hand Machines on hand.

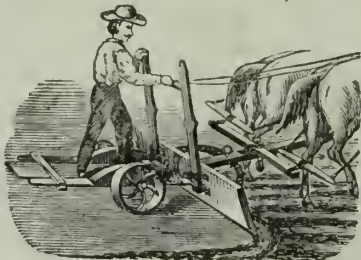
4v29-1am-bp-3m

THE CALIFORNIA SCRAPER,

—MANUFACTURED BY THE—

Kimball Car & Carriage Man'g Co.

COR. FOURTH & BRYANT STS., S. F.



THE CALIFORNIA SCRAPER.

This Scraper has been long needed in many departments of labor. Heretofore all classes of Scrapers have imposed immense labor and hardships on the driver, but this one is so constructed as to give him a place to ride, and yet manage the team and Scraper with ease in all classes of work.

The driver can throw his weight in front, and force the Scraper into the soil, and when he has gathered his load and driven to the place of deposit, he can throw his weight on the rear part of the platform and leave the load all in one place, or deposit it gradually, as the case may require, leaving the ground smooth and level. This improvement is well adapted to leveling all irregularities on the surface of the soil where parties are preparing to irrigate.

For making roads, removing dirt from ditches, cleaning up barn yards or sheep corrals, it has no equal.

The KIMBALL CO. are sole owners and manufacturers of the celebrated IMPROVED EAGLE HAY PRESS, also the California Harrow. For further information send for circular.

MATTESON & WILLIAMSON'S

AMERICAN CHIEF



GANG PLOW.

Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knobs without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

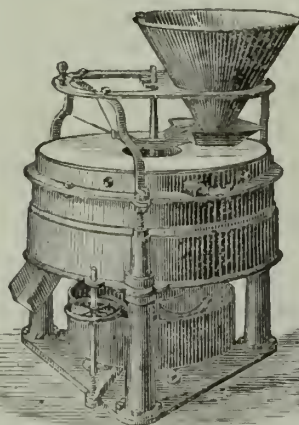
14v2-3m

MATTESON & WILLIAMSON,
Stockton, Cal.

J. WAGNER,

MANUFACTURER OF

FRENCH BURR MILL STONES AND
PORTABLE MILLS.



General Mill Furnishing. Portable Mills specially adapted for Farmers' use. 113 and 115 Mission street, San Francisco.

13v7-3m-2am

O. CREGO.

S. O. BOWLEY.

CREGO & BOWLEY,

Importers and Manufacturers

—OF—

CARRIAGES and WAGONS,

No. 9 Merchant's Exchange,

CALIFORNIA STREET.....SAN FRANCISCO

Keep constantly on hand top and open Buggies, top and open Rockaways, Jump-seat Buggies, Track and Road Sulkeys, Skeleton Wagons, Basket Phaetons of the very latest styles and finest workmanship.

We would call particular attention to our fine stock of light Road and Trotting Wagons, made to order by the following celebrated makers:

Charles S. Coffrey, Camden, New Jersey;
Helfield & Jackson, Rahway, New Jersey;
Gregg & Bow, Wilmington, Delaware;
And the first-class makers, which we are prepared to sell on the most reasonable terms.

Also, a large assortment of single and double Buggies, of the most celebrated makers:
O. Graham, New York; J. R. Hill, Concord; Pittkin & Thomas, Philadelphia.

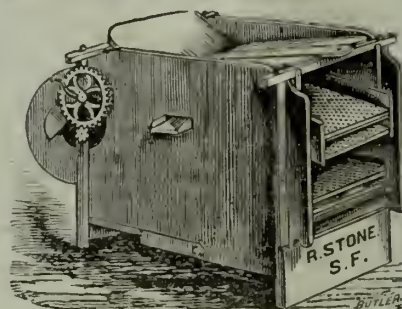
Also, a full assortment of Dress and Light Blankets, Fur and Lap Robes, Whips, Halters, Surcingles, etc., at wholesale and retail.

CREGO & BOWLEY,

No. 9 Merchants' Exchange, California street,
24v5-3m San Francisco.

THE PATENT

Novelty Mill and Grain Separator



Is one of the greatest improvements of the age for cleaning and separating grain, while it combines all the essential qualities of a first-class Fanning Mill. It also far exceeds anything that has been invented for the separation of grain. It has been thoroughly tested on all the different kinds of mixed grain. It takes out Mustard, Grass Seeds, Barley and Oats, and makes two distinct qualities of Wheat if desired.

For further information, apply to
R. STONE,
10v8-cow-3m 422 Battery street, S. F.

THE TREADWELL SULKY



GANG PLOW.

Improved for 1874, with BLACK HAWK Plow Bottoms, is the best GANG PLOW in the world. It is Simple, Strong and Durable, and does its work effectually. Has high wheels, running both on unplowed land; iron axle, wrought iron beams, and is built nearly all of iron and steel. No farmer should neglect to see it before buying. Send for descriptive circular and price. We have also the "VICTOR GANG," with hard wood beams and heavy cast iron standards; price, \$75. Also the "GOLDEN STATE GANG," with all iron beams; price \$75. "PIEL'S GANG," improved; price \$50; old style, \$25. The largest and best stock of Plows, Harrows, Cultivators, Grain Drills, Seed Sowers, Farm Wagons, etc., in the country.

TREADWELL & CO.,

18v8-tf San Francisco

Black Hawk,
Collins,
Plows
"Jones,"
Peoria,

Of all kinds and sizes. The largest stock ever offered in California; all new and just received, at low prices. Also, Cultivators, Harrows, Seed-Sowers, etc. Sold by

TREADWELL & CO., San Francisco.

Send for Price List.

18v8-tf

Notice—To Tule Land Owners.

I am manufacturing a Gang Plow specially adapted to ploughing Tule Lands. Address

Vallejo Foundry, J. L. Heald, Prop.,
18v29-3m VALLEJO, CAL

POISON! POISON!

WAKELEE'S PATENTED

Granulated Squirrel Exterminator.

A NEW AND MOST DESTRUCTIVE POISON FOR THE WORST PEST OF CALIFORNIA.

For years the farmers of the Pacific Coast have been spending money in experimenting to find a safe, cheap and efficient way of ridding their grain fields of their worst enemy, THE SQUIRRELS, which destroy Millions of Dollars' worth of grain every year; and unless a strong and combined effort is made to kill them off, they will become more numerous every year.

Wakelee's Granulated Squirrel Exterminator

Is just the thing the farmers of California have been looking for. It is SURE DEATH. One or two grains of it will kill a Squirrel so quick that if it is five feet from his hole it dies before it gets there. The Poison is put up dry and in granular form, and easily handled; in one pound tin at \$1 per pound. It goes a great way, as 10 to 15 grains of it are sufficient to place at each hole. Also successfully used for killing Gophers and Rats. It has been thoroughly tested in different parts of the country, and gave universal satisfaction. It is kept and sold by druggists and dealers generally through the country. The following are some of my testimonials, viz:

SANTA CLARA, April 20th, 1874.
H. P. WAKELEE, Esq.—Your Squirrel Exterminator was used according to your directions, on my Quila Farm, with excellent success, and in my estimation is just the thing the farmers want to kill their Squirrels.

J. R. ARQUELLO.

SAN LEANDRO, Cal., April 3d, 1874.
H. P. WAKELEE, Esq.—I have given your Squirrel Exterminator a fair trial and find it to be an economical and very destructive preparation, and I can safely recommend it to our farmers. Yours,

J. M. ESTUDILLO.

DOUGHERTY STATION, Alameda Co., Cal.
Mr. H. P. WAKELEE, San Francisco: I have used your Squirrel Poison and found it to be just what you claim for it. It is sure death. Yours,

O. M. DOUGHERTY.

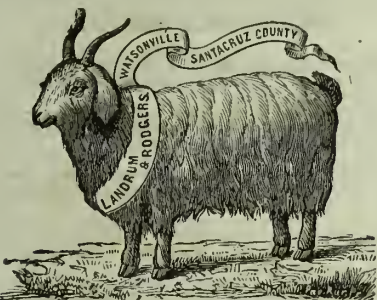
H. P. WAKELEE, Druggist,
Cor. Montgomery and Bush streets, S. F.

Live Stock Notices.



SULTAN SECOND.

Angora or Cashmere Goats of pure blood and all grades for sale in lots to suit purchasers. Location, four miles from Railroad Station, connecting with all parts of the State. For particulars, address N. Gilmore, El Dorado, El Dorado County, Cal.



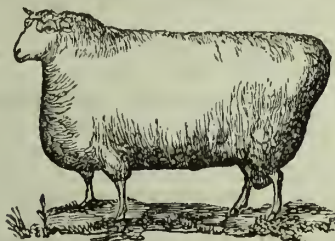
We respectfully invite the attention of wool growers to our fine stock of Cotswold Sheep and Angora Goats. We have 200 head of Pure Bred Angoras to select from; we have some of the finest Goats in America; we guarantee everything we sell to be as represented; our prices are as low as any in America for the same grade of stock. Call and see, or address,

LANDRUM & RODGERS,

13v7-eow-tf

Watsonville, Cal.

B. W. OWENS, San Francisco. | E. MOORE, Stockton, Cal.



OWENS & MOORE,
COMMISSION MERCHANTS,
DEALERS IN

WOOL, HIDES, PELTS AND GRAIN.
Office—405 Front street, S. F. 14v7-3m

U. S. LIVE STOCK EXCHANGE,

S. E. Cor. 5th & Bryant Sts.,
SAN FRANCISCO.

Fresh Milch Cows and Cattle;
Saddle, Work and Carriage Horses; Thoroughbred
Durhams and Devons; Pure Blooded Berkshire Pigs;
Thoroughbred Cotswold, Southdown and French and
Spanish Merino Sheep, sold on commission or bought
on farm for cash. Address, DAWSON & BANCROFT,
P. S.—Special rates to members of the Grange.

THE CELEBRATED
H. H. H.
HORSE MEDICINE

IS STILL AHEAD OF ALL OTHERS.
The Wholesale Druggists of San Francisco, give
evidence of its appreciation throughout the State, by
and rapidly increasing orders. We pledge it a cure for
SPAVINS, WIND GALLS,
SWEENEY, SCRATCHES,
LAME AND STIFF JOINTS,
CALLONS, LUMPS,
AND ALL BLEMISHES,
SPRAINS OR BRUISES.

It is a household-blessing and no family should be
without a bottle in the house. For sale everywhere.

WILLIAMS & MOORE, Prop's.,
25v8-6m Stockton, Cal.

CO-OPERATIVE MARBLE WORKS.

JOHN DANIEL & CO.,
Manufacturers of and Dealers in
Monuments, Headstones, Tombs,
MANTEL PIECES, ETC.,
421 Pine street, between Montgomery and
Kearny, SAN FRANCISCO.
21v2-1y

FOR SALE OR TO LEASE.

A fine place, well adapted for keeping summer
borders. Two large houses, orchard, vineyards, nat-
ural forest and good springs, water brought into the
houses. Location and scenery unsurpassed.

A. E. BALL,
502 Montgomery St.
24v8-4t

Nurseries and Seedsmen.

Established 1853.

Stocks for Nurserymen.

Plum Seedlings, Mirobolan, the best French
stock, does not sucker..... \$50 per 1000
Apple Seedlings..... 10 per 1000
Pear Seedlings..... 10 per 1000
Cherry Seedlings, Mazzard..... 12 per 1000
Cherry Seedlings, Mahaleb..... 20 per 1000
Walnuts, English, 4 to 6 feet..... 15 per 100
Cork Elm, best Elm, 4 to 6 feet..... 15 per 100
Blue Gum or Eucalyptus, in variety..... 5 to 10 per 100
Magnolia Grandiflora.....
Magnolia Acuminata.....
Magnolia Tripetala.....
Golden Arborvitae.....
Crataegus Arbutifolia.....
Swedish Juniper.....
Irish Juniper.....
Heath-leaved Arborvitae.....
Heath, Mediterranean..... \$2 50 per doz.
Laurustinus, 6 to 12 in..... 2 50 per doz.
Making the growth of Oranges and Lemons a special-
ity, I have imported from all sources the best known
varieties, and now offer five thousand Grafted Trees
properly worked and twice transplanted at \$18 per
dozen. Grafted oranges by the 100 or 1,000 at prices on
application. The amateur in want of large PALMS,
large AURICARIAS, large CAMELIAS and large TREE
FERNS, a good stock on hand; also the usual large
stock of fruit and ornamental trees.

BERNARD S. FOX,

San Jose, Cal.

THOS. MEHERIN, Agent, 516 Battery Street, San
Francisco. 24v8-3m.

The Aughinbaugh Blackberry



This new and excellent variety of Blackberries,
which begin to ripen from the first to the fifteenth
of May, and continue to produce berries until the mid-
dle of July, about the time other varieties begin
to ripen.

Plants are now ready for transplanting and for sale
at my residence on Washington Avenue, west of Euclid
Street, Alameda, and at Geo. F. Silvester's, 317 Wash-
ington Street, San Francisco. Price, \$25 per hundred
plants.

G. AUGHINBAUGH.

23v8-tf

SHINN'S NURSERIES,

NILES' JUNCTION,

Alameda County, - - California.

The attention of persons intending to set out Trees
is requested to the well grown and large variety offered
for sale by the undersigned at the above Nurseries.
An examination of our stock will satisfy any one of the
quality, being all that can be asked, and when the low
prices we have fixed are taken into consideration, we
believe we are offering the very best inducements for
buyers to deal with us. For full particulars we refer
to our circular for the approaching season, which will
be sent, as requested, on application to either of the
undersigned.

SHINN & CO.,

Proprietors.

Address James Shinn, Niles, Alameda County, Cal.,
or, Dr. J. W. Clark, 418 California street, San Fran-
cisco, Cal. 8v17-4mo.

J. ROCK'S NURSERIES,

San Jose, California.

We offer this season a Complete Stock of

FRUIT AND ORNAMENTAL TREES,
SMALL FRUITS AND PLANTS.

The attention of Dealers, Nurserymen and Planters
is invited to our Large Stock of Fruit Trees.
All Leading Market Varieties are grown in large quan-
tities. To all those purchasing largely we will make a
Liberal Discount.
Catalogues FREE on application.

23v8-tf JOHN ROCK, San Jose, Cal.

ALMOND TREES.

35,000 Brier's Languedoc Almond Trees,
one and two years old from the bud. This is the only
Almond planted on a large scale, being hardly late
blooming, beautiful tree. It bears the second year
from planting. The Almond is large and sweet with
soft shell. Also, two year old Peach and English Wal-
nut trees. Liberal terms to the trade and persons
planting large orchards. Send orders to

W. W. BRIER,

21v8-3m Centerville, Alameda Co., Cal.

Peaches, Apricots and Prunes are specialties
at the Vacaville Nursery, Solano County, California.
Alexander's Early, Thurber and Peento in bud, 50 cents
each, Beatrice, Louise, Rivers' Early, Lord Palmerston,
Lady Palmerston, Prince of Wales, Princess of Wales, Pic-
quet's Late, Lady Parham, Italian Dwarf, Golden Dwarf,
Bloodleaved and many other varieties of new Peaches in
bud, at 25 cents each; Trees of Alexander's Early, \$1 each;
Beatrice, Plowden, Freemason and a general assortment
of the leading varieties, 25 cents each; Apricots, Plums,
Apples, Pears, Cherries, Almonds, Figs, Olives, Pomegra-
nates and including most of the leading varieties of fruit
for sale at low prices. D. E. Hough, Vacaville, Solano
Co., Cal.

SEEDS. SEEDS.

Encourage home industry and make a
saving of at least 30 per cent.

If you want Seed that you can depend upon as to
variety and freshness, why not send your orders
direct to the grower and make a saving of at least
thirty per cent. on the prices of other seedsmen.
Send for catalogue, free, post-paid, and compare with
prices of other dealers. Just received,

Grasses, Clover, Alfalfa and Field Seeds,
Fruit and Evergreen Trees, Shrubs,
Flowering Shrubs, and Green-
house Plants. Cabbage,
Onion and Cauli-
flower Plants.

Large assortment of Bulbs from Holland. Address
all orders or letters of inquiry, to

SEVIN VINCENT,

607 Sansome street, San Francisco, Cal.

22v8-3m

SUPERIOR FRUIT TREES

TRUE TO NAME.

A fine collection of Evergreen and Deciduous
Trees. Australian Gum Trees in variety, by the
hundred or thousand. Monterey Cypress in quan-
tities and sizes to suit all. Orange and Lemon
Trees at reduced prices. A general variety of Nursery
stock.

Also, Rhubarb and Asparagus roots.

T. CORLEY,

18v29-tf 315 Washington Street, S. F.

THOS. A. GAREY'S

Semi-Tropical Nurseries.

LOS ANGELOS, CAL.

Forty varieties of the Citrus family of semi-trop-
ical trees, including many rare and beautiful, as
well as useful and profitable kinds.

Grafted and Budded Orange Trees a spec-
ialty. Trees packed to arrive in good order.
Priced Catalogue sent free. Address me P. O. Box,
528, Los Angeles city, Cal.

23v8-6m

THOS. A. GAREY.

PEPPER'S NURSERIES.

(Established in 1858.) PETALUMA, CAL.

Green Houses and Tree Depot corner Wash-
ington and Liberty streets.

4 Green Houses. 3,000 feet of Glass. Fruit Trees a
Specialty.

We offer for sale at lowest market rates a general as-
sortment of Fruit and Shade trees, small Fruits, Vines,
etc. Evergreen trees and Shrubs in great variety. Green
House, Conservatory and Bedding Plants, Roses, etc.

We are now ready, Nov. 1st, to fill orders for trees and
plants. Catalogue and price list furnished on application.

Address,

W. H. & G. B. PEPPER,

19v8-tf

Petaluma, Sonoma Co., Cal.

80,000

AUSTRALIAN GUM TREES,

FOR SALE AT THE CELEBRATED

GUM TREE FOREST NURSERY,

Haywards, Alameda Co.

Address

JAMES T. STRATTON,

No. 306 Pine street, over Pacific Bank, S. F.

22v8-tf

JAMES HUTCHISON'S

NURSERIES AND SEED STORE,

OAKLAND, CAL.

Established 1852. P. O. Box 331.

An immense collection of Evergreen trees, Shrubs
and Flowering Plants wholesale and retail. New and
rare plants, Roses, Fuchsias, and Carnations a specialty.
I invite inspection. Catalogues on application

25v8-3m

PACIFIC OIL AND LEAD WORKS,

SAN FRANCISCO,

Manufacturers of

Linseed and Castor Oils,

OIL Cakes AND MEAL

Highest price paid for Flax Seed and Castor Beans de-
livered at our works.
Office, 3 and 5 Frontstreet.
Works, King street, bet. Second and Third. fel5-eow

ALEX. BUSWELL,

BOOK BINDER, PAPER RULER

AND BLANK BOOK MANUFACTURER.

418 & 420 Clay Street, S. F.

Blank Books Ruled, Printed and Bound to Order.
Jan1-ly

Orders Wanted at the National Em-
ployment office, 608 Market street, room 9; office
crowded daily with good men and women, seeking em-
ployment; particular attention paid to country orders.
25v8-3m A. BRANDT & CO., Prop's

Grange Notices.

The Sewing Machine

—FOR THE—

GRANGERS.

NO COMBINATION! NO MONOPOLY!

The New Improved FLORENCE,

Side Feed and Back Feed.
Agency established on the Pacific
Coast in 1863. The lightest run-
ning, most simple, and most easily
operated Sewing Machine in the
Market. Always in order and ready
for work. If there is a Florence
Sewing Machine within one thou-
sand miles of San Francisco not
working well I will fix it without
any expense to the owner. Samuel
Hill, Agent, 19 New Montgomery
Street, Grand Hotel Building,
San Francisco.

Mr. I. G. Gardner, State Agent for the California
Granges, is authorized to make liberal terms to all
Grangers who purchase the FLORENCE. No combina-
tion against favoring the Grangers has ever been joined
by Florence Agents.

7v8-tf SAMUEL HILL, General Agent.

California Farmers' Mutual Fire Insur-
ance Association.

Office, 6 Leidesdorff Street, - - - San Francisco.

Directors:

A. WOLF, G. P. KELLOGG, I. G. GARDNER,
J. D. BLANCHARD, W. H. BAXTER.

Finance Committee:

I. C. STEELE, A. WOLF, A. B. NALLEY.

Trustees:

J. M. HAMILTON, Lake Col. C. STEELE, San Mateo Co
J. C. MERRIFIELD, Solano Co. A. B. NALLEY, Sonoma Co
G. W. COLBY, - Butte Co. O. S. ABBOTT, Sta. Barb'a Co
H. B. JOLLEY, - Merced Co. A. W. THOMPSON, Sonoma Co
A. WOLF, San Joaquin Co. E. W. STEELE, S. L. Obispo Co
J. D. BLANCHARD, Pres't. W. H. BAXTER, Sec'y.

This association is organized for the purpose of af-
fording the farmers of this State the means of safely
insuring against loss by fire, at actual cost of insurance,
without being connected with city risks. a822-tf

Commission Merchants.

JOHN H. HEGLER,

Nos. 412 AND 414 SANSOME STREET, S. F.

Grangers' Dairy Produce

—AND—

COMMISSION HOUSE,

HAS EVERY FACILITY FOR SELLING

BUTTER, CHEESE,

EGGS,

POULTRY,

LARD,

HAMS,

HIDES,

BACON,

WOOL,

PELTS,

POTATOES,

Smoked and Salt Fish,

DRIED & CANNED FRUIT, HONEY, ETC

H. K. CUMMINGS.

1868.

H. H. BALSTON.

1874.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission
House,

ESTABLISHED 1858.

No. 424 Battery street, southeast corner of Washing-
ton, San Francisco.

Our business being exclusively Commission, we have
interests that will conflict with those of the producer.
4v23-1v

Davis & Sutton, Commission Merchants,

For California Fruits: also for the sale of Butter, Eggs,
Cheese, Hops, Green and Dried Fruits, etc., 75 Warren
street, New York. Refer to Anthony Halsey, Cashier,
Tradesmen's National Bank, N. Y.; Ellwanger & Barry,
Rochester, N. Y.; C. W. Reed, Sacramento, Cal.; A.
Lusk & Co., Pacific Fruit Market, San Francisco, Cal.

3v4-1v

LOOK!

ALBERT E. BURBANK, Import-
er and Breeder of Fancy Fowls,
Pigeons, Rabbits, etc. Also Eggs
for hatching from the finest of im-
ported stock. gg and Fowls at
reduced prices. Send for Price
List.

ALBERT E. BURBANK,
1v8-3m 43 & 44 Ca. Market S. F.



CHINESE EMPLOYMENT COMPANY.

We are prepared to furnish at short notice, Domestic
Servants, Hotel Cooks, Laundrymen, Waiters, Common
Laborers, Farm Hands, Gardeners, Mechanics, Factory
Hands, Wood Choppers, etc. Special attention given to
unfishing Domestic Servants.

PIERCE & CO., 621 Sacramento St.
bet. Montgomery and Kearny Sta. S. F.
4v17-3m

Geo. W. Chapin, Real Estate Agent, 434
Montgomery St., San Francisco, buys and sells Ranches
in all parts of the State. City Real Estate exchanged for
Country Property. MONEY LOANED. Post Office Box 1220

Will You Help Us Make A Good Farmers' Paper For 1875.

A true helper in the field and in the household.

Of real public benefit and credit to our Pacific Slope.

Write for it. Subscribe for it. Get up clubs for it.

Will not \$5,000 paid in support of a first-class agricultural home journal yield more and richer fruits to the Coast, than \$10,000 sent abroad for cheaper journals, supported largely by preying quacks and humbug advertisers? Don't say you can't afford it. You can read the RURAL six months out of twelve and profit more than by reading any other agricultural journal throughout the year. Volume nine commences January 1st, 1875. Single subscription \$4 a year. In clubs of five or more, \$3 each. Old subscribers are authorized to get up clubs now. Sample copies free. Address

DEWEY & CO.,
Publishers, S. F.

RATES of POSTAGE—Domestic Postage.

ON ALL LETTERS throughout the United States, 3 cts. for each half-ounce or fraction thereof.

DROP OR LOCAL LETTERS, 2 cts. per half ounce where there is a free carrier's delivery; other offices, 1 cent.

POSTAL CARDS, 1 cent., in the United States.

VALUABLE LETTERS may be registered by payment of a registration fee of 8 cts. in addition to Postage. Money can be sent with absolute safety by mail, by procuring a Money Order. The fees are: On orders not exceeding \$10, 5 cts.; \$10 to \$20, 10 cts.; \$20 to \$30, 15 cts.; \$30 to \$40, 20 cts.; \$40 to \$50, 25 cts.

PRINTED BOOKS, in one package, to one address, 1 ct. for each 2 ounces or fraction thereof, not over 4 lbs.

ON TRANSIENT NEWSPAPERS, or other Printed Matter (Books excepted), and on Circulars, Pamphlets, Book Manuscripts and Proof Sheets, Maps, Sheet Music, Chromos, Engravings and Photographs, 1 cent for each 2 ounces or fraction thereof, not over 4 lbs.

SEEDS, Cuttings, Bulbs, Etc., 1 cent for 2 ounces and fraction of 1 ounce, not over 4 lbs.

SAMPLES OF MERCHANDISE (Liquids excepted), Ores, Etc., Flexible Patterns, Paper, Envelopes and Blanks, 1 ct. for each 2 ounces, not over 4 pounds.

ALL TRANSIENT MATTER, except duly certified letters of Soldiers and Sailors, must be prepaid by stamps.

ON matter not above specified, same rate as Letters.

Foreign Postage.

LETTERS TO GREAT BRITAIN & IRELAND.—For each half ounce, or fraction, 6 cts., if prepaid; if not prepaid 6 cts. extra will be collected in Great Britain, and 6 cts. in U. S.

TO THE GERMAN STATES.—For every half ounce, or fraction thereof, via N. German Union direct, 6 cts.; closed mail, via England, 7 cts., prepayment optional.

TO FRANCE (payment compulsory), 10 cts. for each half ounce or fraction thereof, direct mail; 4 cts. (open mail) by England. Fully prepaid, via Eng., one-third ounce, 10 cts.; one-third to one-half ounce, 16 cts.; one-half to two-thirds ounce, 20 cts.; two-thirds to one ounce, 26 cts.

TO THE DOMINION OF CANADA, Nova Scotia, Newfoundland, Etc., per half ounce, any distance, 6 cts., if prepaid; if not paid, 10 cts. Postal Cards, 2 cts.

ANY PERSON receiving this paper after giving an order to stop it, may know that such order has failed to reach us, or that the paper is continued inadvertently, and they are earnestly requested to send written notice direct to us. We aim to stop the paper promptly when it is ordered discontinued.

THE MINING AND SCIENTIFIC PRESS, San Francisco, was regarded as the best paper for miners published anywhere in the world. Subscribers should be careful to put on file each number; and each year's edition, bound in a volume, would prove a most valuable hook to all reading men engaged in mining or in the reduction of ores.—Boulder News.

SEEDS. PLANTS.

OF EVERY VARIETY.

Fresh and reliable, such as experience and care only can select.

GRASS AND CLOVER SEEDS, KENTUCKY BLUE GRASS, HUNGARIAN, ORCHARD, ITALIAN RYE, RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL, CHOICE CALIFORNIA ALFALFA, WHITE CLOVER, RED CLOVER, Etc.

Also, RAMIE, JUTE AND TOBACCO SEEDS; together with a fine and complete collection of TREE SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGANTEA, PINUS INSIGNIS, Etc.

For Sales, wholesale or retail, by

B. F. WELLINGTON,

(Successor to E. E. Moore).
425 Washington St., San Francisco. 22v7-1v

FLOWER SEEDS.

VEGETABLE SEEDS.

Spencer's Prize Flower Seeds.
Spencer's BOSTON MARKET
VEGETABLE SEEDS.
Descriptive Priced Catalogue,
with over 150 illustrations, mailed
free to applicant.
W. H. SPOONER, Boston, Mass.

BETTER THAN MINING STOCK.

A valuable Patent for sale. No objection to taking real estate in part payment. Residence, Washington street on the levee, P.O., Sacramento.

jan2-bp-tf

O. A. DAVIS.

Fruit, Shade and Ornamental EVERGREEN TREES

Plants for Sale

At the old stand, corner Oregon and Battery streets, directly opposite Post Office, San Francisco.

I NOW OFFER FOR SALE

The Largest and Best Collection of Fruit, Shade and Evergreen Trees and Plants ever offered in this market, and at Reduced Prices.

Persons laying out new grounds would do well to call and examine our stock before purchasing elsewhere.

ORDERS FROM THE COUNTRY

Promptly attended to and packed with great care. A large stock of Cypress, Pines and Blue Gums for sale very low. Send for Price Catalogue.

Agent for B. S. Fox's Nurseries, San Jose, Address

THOMAS MEHERIN,
516 Battery St., S. F.

M. FALLON,

Cor. Seventh and Oak streets,
OAKLAND, CAL.



Light and Dark Brahmas,
Buff, White and Partridge Cochins,
Spangled, Golden and Silver Polish,
Spangled, Golden and Silver Hamburgs,
Pure White-faced Black Spanish,
White and Brown Leghorns,
Silver Grey Dorkings,
Houdans, Silkies, Black-Red Games,
Bronze Turkeys, Rouen and Aylesbury Ducks.

All from Premium Stock of Best Strains

Fowls of above varieties for sale; also, Chicks in their season. Eggs packed with care and sent in rotation as orders are received.

REEDVILLE HERD.

PROPRIETOR,

S. G. REED. - - Portland, Oregon.

I have for sale, Shortborns of the most approved and fashionable families; among them are a few one year old Bulls of great merit, the produce of Cows imported direct from England, and sired by the renowned Mantalini bull, GOVERNOR GENERAL, 10,156, A. H. B., Vol. X, p. 175. Also on hand,

AYRSHIRE CATTLE,

COTSWOLD AND

LEICESTER SHEEP,

AND BERKSHIRE PIGS.

of the highest standard. For particulars apply to

S. G. REED, Portland, Oregon.

Or WM. WATSON, Hillsboro, Oregon.

1v9-9w-tf.

BLOODED STOCK FOR SALE.

May be seen on board the ship "G'ory of the Seas." They consist of a Bull, three Cows, and six Calves, all Jersey stock, with good pedigree. Inquire of the Captain on board, or HENRY COTTRELL, Grangers' Bank, 415 California street.

BELLA UNION HOTEL,

JOHN F. MILLER, Prop.,
SAN BERNARDINO, CAL.

This fine hotel is situated in one of the best parts of the city, and the proprietor will at all times use his best endeavors to promote the comfort of his guests.

20 FINE VERBENAS FOR \$1.

Any of the following named plants sent by mail, postage paid, at 10 cents each. Any three sorts for 25 cents, or fifteen for \$1. No order received for less than 25 cents. Fuchsias, Geraniums (Double Zonale, Scented and Ivy), Begonias, Carnations, Pinks, Calceolarias, Basket Plants, Ageratums, Abutilons, Achyranthes, Coleus, Camas, Chrysanthemums, H. & V. Pinks, Cupids, Eupatoriums, Stevias, Feverfew, Heliotropes, Helianthus, Libonias, Mahonias, Pilea, Smilax, Double Petunias, Solanum Capsicastrum, Veronicas. One packet Aster, Balsam, Petunia, Phlox and Verbena for 25 cents. My Illustrated Catalogue of New Plants for 1875, and any two packets of the above Seeds sent on receipt of 10 cents. Address C. A. REESER & CO., Erie, Pa.

A GOOD GARDEN

Can not be had without GOOD SEED. I have endeavored in every way to make mine THE BEST. My GARDEN MANUAL, besides containing the most COMPLETE TREATISE on Hot-bed-sewing published, is FULL OF PRACTICAL HINTS and LABOR-SEAVING METHODS, learned in many years' market-gardening. Sent for two stamps. J. B. ROOT, Seed-Grower, Rockford, Ill.

GRAPE VINES FOR SALE.

Roots and Cuttings of the best foreign varieties in lots to suit, at ten to twelve dollars for this former and three to five dollars for the latter. Thirty thousand roots W. Muscat, Alexandria, &c. Orders solicited early.

H. W. CRABB,
Oakville, Napa Co., Cal.

1v9-tf

NEW CROP OF BLUE GUM SEED.

GRASS AND CLOVER SEEDS.

FLOWER AND VEGETABLE SEEDS.

TREE AND FRUIT SEEDS.

OF EVERY DESIRABLE VARIETY AND OF THE BEST QUALITY; OFFERED AT WHOLE-SALE OR RETAIL, BY

GEO. F. SILVESTER,
SEEDSMAN,

No. 317 Washington Street,

24v8-tf

SAN FRANCISCO.

1874. GUIDE AND CATALOGUE 1875. FREE.

To persons contemplating purchasing I will send my ILLUSTRATED, DESCRIPTIVE CATALOGUE and GUIDE to the VEGETABLE and FLOWER GARDEN WITHOUT CHARGE. It contains the most extensive and valuable list of



Flowering Bulbs, Roots and Plants, Semi-Tropical Trees, Ornamental Shrubs, Fruit and Shade Trees, etc., ever offered in this market. It tells how to successfully grow the Australian Blue Gum, the Monterey Cypress, Pine, etc., and the proper method of Cultivating Tobacco on this Coast.

My stock of Seeds is in part my own raising and in part direct importations from the best European and Eastern growers, and is unsurpassed in all respects by that offered by any other establishment.

100,000 Australian Blue Gums and Monterey Cypress in boxes at from \$30 to \$50 per 1,000, raised at my own Nursery at San Rafael.

R. J. TRUMBULL,

Grower, Importer, Wholesale and Retail Dealer in Seeds, Shrubs, Trees, etc.

20v8-6m-16p

427 Sansome street, S. F.

Gregory's Seed Catalogue.

My annual catalogue of Vegetable and Flower Seed for 1875, will be ready by Jan. 1st for all who apply. Customers of last season need not write for it. In it will be found several valuable varieties of new vegetables introduced for the first time this season, having made new vegetables a specialty for many years. Growing over a hundred and fifty varieties on my several farms, I would particularly invite the patronage of market gardeners and all others who are especially desirous to have their seed pure and fresh, and of the very best strain. All seed sent out from my establishment are covered by three warrants as given in my catalogue.

JAMES J. H. GREGORY, Marblehead, Mass.

M. EYRE, Napa, Cal.

Bronze Turkeys, Emden Geese,

Brahmas,

Houdans,

LEGHORNS,

and GAMES.

Black Cayuga and Aylesbury Ducks

Bantams, etc.

Eggs, fresh, pure, true to name; well-packed so as to hatch after arrival.

ILLUSTRATED CIRCULAR AND PRICE-LIST FREE.

14v9-16p-tf.



I will send 12 Flowering Plants for One Dollar (your choice from 100 sorts), by MAIL OR EXPRESS. MY ILLUSTRATED CATALOGUE, describes the culture of Plants & Seeds, to customers free of charge. Address WM. E. BOWDITCH, 645 Warren st., Boston, Mass.

1v9-tf

FOR SALE.

A pair of thoroughbred Chester White Hogs, one year old.
A. B. ROWLEY,
Mayfield, Santa Clara Co., Cal.

BREEDERS' DIRECTORY.

PARTIES DESIRING TO PURCHASE LIVE-STOCK WILL FIND IN THIS DIRECTORY THE NAMES OF SOME OF THE MOST RELIABLE BREEDERS.

OUR RATES.—Cards of six lines or less will be inserted in this directory at the rate of 50 cents a line per month. Payable quarterly.

CATTLE.

W. L. OVERHISER, Stockton, San Joaquin Co., Cal., breeder of Short-Horn Cattle and Berkshire Swine.

J. D. CARR, Gabilan, Monterey Co., Cal., breeder of Trotting Horses, Short-Horn Cattle, Thoroughbred Spanish Marino Sheep and Swine.

J. BREWSTER, Galt Station, Sacramento Co., Cal., breeder of Short-Horn Cattle.

MOSES WICK, Oroville, Butte Co., Cal., breeder of Short-Horn Cattle. Young hulls for sale.

A. MAILLAIRD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.

STANTON & POWERS, Sacramento, Cal. Choice Jersey Heifers at reasonable rates. Address L. O. Powers, Sacramento, Cal.

SHEEP AND GOATS.

THOS. BUTTERFIELD & SONS, Hollister, San Benito, Cal. Importers and breeders of Angora Goats and Sheep.

N. GILMORE, El Dorado, El Dorado Co., Cal., importer and breeder of Angora Goats.

SEVERANCE & PEET, Niles, Alameda Co., Cal., breeders of Thoroughbred Spanish Merino Sheep.

MRS. ROBERT BLACOW, Centerville, near Niles Station, Alameda Co., Cal. Pure-Blooded French Merino Sheep for sale.

A. G. STONESIFER, Hill's Ferry, Stanislaus Co., Cal., breeder of Pure-Blooded French Merino Sheep.

LANDRUM & RODGERS, Watsonville, Santa Cruz County. Pure-Bred Angora Goats and Cotswold Sheep for sale.

POULTRY.

GEO. B. BAYLEY, Cor. 16th and Castro streets, Oakland, Cal. Imported Brahmas and other choice Fowls for sale.

ALBERT E. BURBANK, 43 and 44 California Market, San Francisco, importer and breeder of Fancy Fowls, Pigeons, Rabbits, etc.

M. EYRE, Napa. Bronze Turkeys, Emden Geese and other Fancy Poultry. Eggs in season.

Mrs. L. J. WATKINS, Santa Clara. Premium Fowls. White Leghorn, S. S. Hamburg, Game Bantams, and Aylesbury Ducks. Also, Eggs. 21v8 at

Mrs. L. E. McMAHAN, Dixon, Solano Co., Cal. Bronze Turkeys now ready for sale from the best imported stock; also eight varieties of choice Chickens; Eggs in season can be purchased very reasonably.

C. W. WILSON, San Francisco. The largest and heaviest Bronze Turkeys the world ever saw. One pair, 19 months old, over 72 pounds now. I offer for sale extra large Toms, old or young; also Eggs. Correspondence solicited. Address C. W. Wilson, P. O. Box, 1874, San Francisco.

SWINE.

A. T. HATCH, Suisun City, Cal., breeder of Poland China Swine.

DAWSON & BANCROFT, U. S. Livs Stock Exchange, S. E. Corner 5th and Bryant streets, San Francisco. All kinds of Common and Thoroughbred stock always on exhibition and for sale.

LEA & PERRINS'

—CELEBRATED—

Worcestershire Sauce.



Declared by Connoisseurs to be the only good SAUCE.

Caution Against Fraud.

The success of this most delicious and unrivalled Condiment having caused certain dealers to apply the name of "Worcestershire Sauce" to their own inferior compounds, the public is hereby informed that the only way to secure the genuine is to ask for LEA & PERRINS' SAUCE, and see that their names are upon the wrapper, labels, stopper and bottle.

Soms of the foreign markets having been supplied with a spurious Worcestershire Sauce, upon the wrapper and labels of which the names of Lea & Perrins have been forged, L. & P. give notice that they have furnished their correspondents with power of attorney to take instant proceedings against manufacturers and vendors of such, or any other imitations by which their right may be infringed.

To be obtained of Messrs. CROSS & CO., San Francisco.

OAKLAND POULTRY YARDS

Cor. 16th & Castro Streets,
Oakland, Cal.

A choice selection of Brahmas, Cochins, Houdans, Games, Leghorns, Bantams, Bronze Turkeys, and Ducks constantly on hand and for sale at reasonable rates. Eggs guaranteed to be fresh, true to name and to reach customers safely. Also two Imported Bronze Gobblers for sale; weight 38lbs; price \$75 each. Send for illustrated Circular containing a full description of all the best known and most profitable fowls in the world, to



GEO. B. BAYLEY,

P. O. Box 659, San Francisco.

20v8-tf



Volume IX.]

SAN FRANCISCO, SATURDAY, JANUARY 9, 1875.

[Number 2.]

Silk Culture in 1874.

(Written for the RURAL PRESS by FELIX GILLET, of Nevada City.)

So little now-a-days is said on this once prominent subject, sericulture, that many of your readers unaware of the difficulties to found such an important industry in so short a time and in a State of so sparse a population as California, have come to the conclusion, likely, that sericulture, like those exotic plants transported from foreign lands to our colder climate, died away, proving itself to be a total failure.

This is not precisely the case, and silk culture, although being at present in a dormant state, will in its proper time, when all the obstacles yet in its way will have been removed, redeem itself and add one more resource, I hope, to those already developed here, and which constitute the brilliant crown of our fair State.

But I must confess that our people will have to lay aside their delusions of making quick fortunes by the selling out of silkworm eggs. In former letters to the RURAL PRESS and other papers, I have constantly urged silk growers not to raise silk-worms with the hope of selling their eggs to those countries in need of them; for, said I, even supposing that our eggs were healthy and could be raised successfully in Europe, which was yet doubtful, such a trade would not last, the epidemic being bound to abate some, as it really did since the writing of those lines; therefore I advised people to raise silk-worms solely for the cocoons or raw silk, for which article there is an unlimited demand.

But to-day, after having paid the closest attention to the subject, studied the maladies which are continuously sweeping like a tornado over the cocooneries of Europe and gone into the business of raising silk-worms of different races, I more than ever say to our silk growers, do not waste your time at raising eggs but stick to the less paying business of raising cocoons for the silk as more certain; for the epidemic which still rages in Europe, that is the dreaded pebrine, is in our very midst; notwithstanding our "splendid climate" and "healthy food." I had doubts about it last year, but they are entirely dispelled this year; and I am satisfied that in this county, Tuolumne, Santa Clara, Yuba and other parts of the State from which I have got reports, the malady does exist, and where the worms are successfully raised the eggs are more or less infected and unfit for the great European market. When I say that pebrine has appeared in our midst, I do not mean that it is the only malady we have to look after and contend with; for, as I pointed out four years ago in letters to the Sacramento Union and Los Angeles Star, the flacherie or blight, that other fatal disease, had been doing havoc at that time in the cocooneries near Sacramento, Los Angeles and elsewhere.

I will, therefore, at this juncture, since it is of no use to hide the truth, give you a description of both maladies, of their intensity in California, and how to remedy their ravages.

Pebrine

Is the name of the epidemic which has decimated the cocooneries of Europe for the last 25 years. It generally makes its appearance after the second molting. Its first symptoms are a slowness among the worms in changing their skins, a part of them only accomplishing their molting in the usual time, while the largest part is keeping so much behind that they can never be able to spin a cocoon and, therefore, have to be thrown away. On the average, one tenth to one-twentieth of the worms might reach the last molting in good time, but here pebrine will develop itself in its worst features,

taking hold, without mercy, of the poor worm, whose body then gets covered all over with black spots; from which appearance the malady got its name, "pebrine;" the body of the worm looking, in fact, as if it had been sprinkled with pepper. Besides these spots, the caudal appendage of pebrined worms looks as if it had been burned; of course, every worm that has such black spots, will die before spinning a cocoon. Altogether, hardly ten per cent. of the worms affected with pebrine will spin cocoons, light ones, too at that.

Flacherie or Blight

Is the name of the other epidemic, which made

1870. As to Pebrine, I should think that its introduction in the State is more recent. Personally I did not detect any symptoms of it here before last year; and even this year I detected it only on French yellow-annuals of *California reproduction*; but no disease whatever among the worms of Japanese and European origin and of direct importation; though the worms were raised in the same room with the pebrined ones.

I shall not enter in this letter on the different theories as to the causes of these diseases, pebrine and flacherie, whether they are contagious or accidental; although pebrine is gen-

quantity, silkworms of those beautiful yellow-annual races might yet be raised with success.

Having in my possession a first-class microscope imported from France for this very purpose, I examined the eggs raised by me, and so far I have not detected any corpuscles in them. In a subsequent letter, if the subject would be of interest to your readers, I might give you the manner to make a microscopic observation of silkworm eggs and moths, with a cut of it magnified one thousand times in diameter. Any of your readers that would wish to have their eggs examined, may send as many as a hundred in a letter, and I will tell them whether they are corpuscular or not.

(Continued next week.)

Los Angeles Raisins.

We have before us samples of raisins from the Los Angeles Fruit Preserving company of which Geo. B. Davis is manager. There are two kinds, the Los Angeles Mission (grape and the white muscat. Both will have a thorough examination. Those of the Mission variety are of medium size only, but are clean and glossy in appearance, satisfactory to the touch, and are sweet and rich; possessing all the qualities of a good cooking raisin. In proof of its marketable value is the fact that a large portion of the late crop has been sold at 15 cts per lb. A sale of 15 tons was made to one purchaser in Arizona at the above price.

The muscats are of larger size and lighter color presenting an inviting appearance, having an excellent flavor. This variety of grape is now figuring conspicuously in the great raisin movement and will undoubtedly be one of the leading varieties that are to be converted into raisins.

In conversing with a prominent retail grocer recently, he expressed the opinion that at the expiration of the next five years there would be no foreign raisins offered in the markets of this country.

The Kirtland Pear.

The Kirtland pear, an illustration of which is shown on this page is sometimes known as the "Seedling Seckel," "Kirtland's Seedling," or "Kirtland's Beur." The tree which bears it is an upright grower with short-jointed stem, yellow-brown shoots, and irregular but sharply serrated leaves, with stout petioles. It is a hardy healthy fruit, partaking in its habits very much of its parent, the Seckel, from seed of which it was grown by H. T. Kirtland, of Mahoning county, Ohio. It is an early and productive bearer on the pear root and said to succeed admirably on the quince.

The size of the fruit is a little above the medium, and is of an obovate form. In color it is a rich deep yellow, overpread with a cinnamon russet; in the sun many of the russet spots become almost red. The stem is usually short, curved, and of a medium length. The core is small and the seeds short and blackish. The flesh is white, juicy, sweet and aromatic. In the Eastern States its season is September.

POPULATION.—It is estimated that the increase of population in this State, during 1874, was 50,000 by immigration, and 17,000 by natural increase; total 67,000. A large increase considering our distance and isolation from the great centers of population. It is estimated that fully one-half of this increase has centered in San Francisco and Oakland. The present population of San Francisco is about \$225,000.

WORK ON THE CENTENNIAL BUILDING.—The Philadelphia papers report that the work on the Centennial building is progressing favorably. The walls have reached a height of about 50 feet, and a portion of the work has been roofed over, so as to admit of continuous work all winter.

BARN BURNED.—The barn of Mr. Root, whose place is on the Sacramento river road, some seven miles below Soda Springs, Siskiyou county, was burned Tuesday morning, the 22nd instant. Loss, including hay burned, \$1,200.



THE KIRTLAND PEAR.

its appearance in 1868, and to which the majority of failures ever since have been and are yet attributed in Europe. It is by far a more dreaded malady than pebrine; in this way: that when worms are affected with pebrine it is at an early stage of their life—that is as early as the second molting; the malady keeping on and advancing slowly with hardly any other symptoms than the inequality in sizes of the worms and their extraordinary slowness in accomplishing their molting, and keeping small all the time—while flacherie, in most cases, breaks out right in the middle of the last age; just a few days before spinning time. The symptoms commence with a kind of torpor among the worms, who will not eat any, but show a disposition to leave the shelves, wandering on the edges, as if to escape. From that time, they cease to touch their food, no matter how fresh and nice the leaves will be, although in the meantime they keep fat and white, finally dying with every appearance of health.

Flacherie has been the cause, I believe, of the failures in Sacramento, Yolo, Los Angeles and Santa Clara counties, in the years 1869 and

erally admitted to be contagious, and flacherie accidental. But I will now say something on

The Best Remedies

So far known, to either get rid or allay the intensity of both diseases or epidemics. Flacherie being considered as accidental, the following recommendations are made to counteract its effects:

1st. Hatch early, so as to avoid the too great heat of the summer.

2d. Do not heat cocooneries except in cases of necessity.

3d. Give the worms plenty air, and keep the room well ventilated, and do not let the thermometer rise to high.

4th. Be very careful to remove worms of doubtful health.

As to pebrine, the most scientific silk culturist is yet to find a remedy against the terrible scourge, though Mr. Pasteur, after long experiments, has come to the conclusion that corpuscles, which were first detected in silkworm eggs by Cornalia, an eminent Italian savant, are a symptom of pebrine; and, therefore by excising from hatching all lots of eggs in which corpuscles are found in a certain

CORRESPONDENCE.

[The RURAL PRESS, in opening the columns of this department to its correspondents, does not desire to lay before its readers anything which is not in keeping with its character and position as an agricultural and family paper. Facts are always thankfully received; and suggestions and matters of opinion on subjects connected with agriculture are also acceptable; though correspondents are to be understood as speaking for themselves and not for the PRESS.]

An Agent's Suggestion.

MESSRS. DEWEY & CO.—I have driven round one day canvassing for the PRESS, and the result I inclose. I cannot send you my own subscription for a week or two yet, but I hope you won't step the paper, as I do not want to miss a single number.

You must not think I am criticising your paper, for indeed I am well pleased with it; but still I think it right to tell you that the only objection I have heard urged against it, is the lack of "general news." They may be only croakers' objections, hard up for an objection. You will know best what appreciation to put upon it.

I shall continue to solicit subscribers for the PRESS, and hope to be able from time to time to send you a remittance. W. S. R.

Los Nietos, December 30, 1874.

[Our friend has our thanks for his friendly criticism. We should give more space to general news for the gratification of the class of readers mentioned above, were it not that a still larger portion take some daily or local newspaper which gives more of general news than we can possibly give without encroaching on the space which we are to devote to valuable agricultural reading. It will be observed that for the past few months we have given some two columns more of news than formerly, which, in a measure meets the wants of "W. S. R.," and other readers for whom he speaks.]—EDS. PRESS.

From Kalamazoo, Michigan.

EDITORS PRESS:—I have just received your paper of December 12th, and found my article about the wild black cherry seed. I now send you by mail a small package of the seed, so that you can see if they will grow there. The farmers here do not take the PRESS but they read mine.

The weather is very open again and wheat is looking well. Many fields are being fed down yet, and thus save many of the farmers from feeding out their last bit of fodder. Wheat is now selling at about \$1.07 per bushel; corn, 75 to 80 cents, and potatoes 75 cents. Butter has been bringing a good price most of the time. There has been a number of stock vendues here this fall and winter, and stock is very cheap on account of being the forepart of winter. Hogs dressed are bringing 8½ to 9 cents per pound; beef 5 to 6. If the weather continues as open as it is at present, there will be lots of wood cut, which will make it very cheap in market; many are now selling last year's wood, which is well seasoned, at cheap rates.

HENRY H. MANER.

Kalamazoo, Dec. 19, 1874.

[The package of wild cherry seed is received, containing about a half pint, and awaits the order of parties desiring them.]—EDS. PRESS.

Haywards Ahead on Blue Gum.

EDITORS PRESS:—I saw in the RURAL of December 19th, a communication headed, San Felipe Bottom, signed J. Begg, saying that one Mr. Beck has blue gum trees that will not be two years old till next April, and which measure twenty feet in height, and are three and four inches in diameter; and saying if that can be beat in this state or anywhere else on this terrestrial globe, that he would like to know where. I will say for the edification of Mr. Begg, that I have a blue gum tree on my place, three miles southeast from Haywards, Alameda county, that measures 27 feet six inches in height, and fourteen inches in circumference, which will not be two years old until next spring, and which I think knocks the socks off Mr. Beck's blue gum about seven feet six inches. LIBERTY PERHAM.

Haywards, December 23, 1874.

From Los Nietos.

EDITORS PRESS:—Los Angeles has still its steamers and stage lines crowded with passengers; hotels still full to overflowing; lumber and firewood not sufficient for the demand; freight for the interior mining region piled up at the railroad depots; and, notwithstanding the enormous freights offered, not teams enough to do the business required. Teamsters have at this date secured nearly all the hay and grain in the county.

But now let's take a little peep at the other side of the picture. Nine plows out of every ten are lying idle for want of rain. On the 26th, Los Angeles city had a little shower. El Monte, ditto. We, of Los Nietos, had to put up with a hail shower. Snow on the mountains. Clear and frosty again. Diphtheria is having quite a run through Los Angeles.

Scarlet fever is following. Usual mortality in its route. GEO. KAY MILLER.
Los Nietos, Dec. 28th, 1874.

Capay Valley.

[From our own Correspondent.]

Capay is said to signify flowery; and those who early settled here say the name was very appropriate. But the agriculturist has greatly changed the valley. Now beautiful yard and garden flowers are to be found at most of the lovely little farm cottages, all the way up the vale, even at the highest and last, Mr. Ramsey's, you find rare and beautiful plants being propagated in flower pots by delicate hands. But instead of the wild flowers, are plowed fields, and many of them already very green with wheat crops. Here, as in many other parts of Yolo county, the grain is getting so far advanced in growth that they are obliged to pasture it off. The general expression among farmers is that this is the most favorable season for extensive cultivation ever enjoyed by Yolo.

The little village of Langtown is situated at the entrance to Capay valley, and is the center for business. Having a postoffice, two smith shops, two hotels (well kept, judging from the Aldrich House); two saloons, two large and fully supplied variety stores; one harness shop; one public hall—30x60 and two stories high, built by a joint stock company and used for Grange and other meetings, and now being elaborately fitted up with many a volunteer hand for dispensing Christmas surprise gifts to the entire community, but especially to make it a merry Christmas to the little ones. From the village to the head of the valley is about 18 miles, with an average of one mile in width. The beautiful, clean stream, Cache creek, running the whole length and affording ample means for irrigation.

As you pass up the valley you readily get the idea that these unpretentious little houses are real homes; and when your invitations to dine and have your horse cared for, begin to greet you long before noon, you soon enjoy abundant evidence that your first impression was correct. Yes, homes with the genuine old New England spare ribs, and where pumpkin and mince pies can be made without any Mongolian aid. And just here I would say, after seeing every portion of Yolo county, that I would not pity the king who was able to have only their average farmer's table fare, for it is abundant and luxurious. The rich alluvial soil of the valley is carefully tilled, and the hill and mountain land back affording a good, convenient range for cattle and sheep. Here, as in other parts of the country, some have their gardens mostly sowed, and in many instances peas several inches high. Away to the head of the valley you find an old patron of the RURAL PRESS, and a splendid specimen of neat, systematic husbandry—order and place being a part of the system.

Here, having spent a very pleasant night, I found myself retracing my steps down the valley, and fighting against the temptation to covet my neighbor's farm and quiet home. But off to my left I saw a splendid ten-room modern mansion not yet completed. Perchance there is an exception to my ideas of a splendid, good, farming community, free from high-toned aristocracy. So I hastened direct to the noble mansion; but before I could half count up the rooms and closets, it was: "come, walk over to the house and take some dinner," the family yet residing in the old farm house. I accepted the invitation, and came away from the table pleasantly impressed, and wishing the new mansion may ever enjoy as bountiful a supply as now crowns the table of the old.

Throughout the whole valley the RURAL PRESS is read and appreciated. Having now finished Yolo county, I desire to visit Napa county, by way of the mining camps at Knoxville, away up near the headwaters of Cache creek, a distance of only eight miles from the head of Capay valley, and all the way up a canyon, when to reach the same place around the road is about thirty-two miles.

When we consider that a portion of the valuable quicksilver mines and works are in Yolo county, and the entire length of the required road is in Yolo county, and if built would naturally draw a large portion of the travel and trade right direct to railroad at Woodland, instead of Napa—it is really strange Yolo does not immediately open the road. Why the road tax now being collected of the hundred men of the California Two M. company and applied to county roads that they never see or use, would soon open a road over this natural, easy route, that would greatly benefit the taxed, add much to the business prosperity of the county, and be in itself an act of justice toward the taxed. To Yolo Supervisors I commend the matter, and hasten on my journey around, and will write you again from Knoxville. C.

Capay Valley, Yolo Co. Dec. 21, 1874.

Information Wanted.

EDS. PRESS:—Will your correspondent, J. C. C., tell us through your paper how and where she obtains paper cutters of laurel and redwood of California and the pictures of the trees upon them? Something of that sort is pretty and appropriate for tokens of remembrance to Eastern friends if procurable.

A WEEKLY READER.

POULTRY YARD.

Practical Poultry Growing.

[Written for the PRESS by M. EYRE, Napa, Cal.]

Very cheap houses for poultry can be made to answer the purpose perhaps better than a structure costing far more money. All who have used such houses profess themselves much pleased with them, and the fowls are not liable to colds and disease when so housed. The materials are two pieces fine scantling 2x3 by 12 feet, and two pieces 2x3 by 16 feet, and 200 feet of inch redwood boards, 14 feet long, all costing (at our prices in Napa) \$5.13. Cut the scantling in half and make two square frames 6x8 feet. For the sides I cut the 14-foot boards in four pieces, and for the roof in three lengths. I sometimes use a piece of scantling 2x3 and eight feet long for a ridge pole, but the house can be made without it. The boards in roof project on the sides six or eight inches, and as they are four feet eight inches long, this gives the pitch of the roof. My man makes a house in one day and a half at this time of year. Over the slits or openings between the boards I nail laths. A door is made in one end and a small slide door for the fowls in the other. For roosts I use fence boards, four pieces five feet long, rounded on edges and resting on feet made of same boards, six inches high. One 24-foot fence board makes the lot. These are merely set in the house, and can be removed and replaced to clean or move the house.

Such a house will accommodate 25 fowls easily. Poultry will thrive far better in small flocks of 25 to 30 fowls. One of my neighbors, whose chickens died of colds and roup, and various diseases, was induced to make four of these houses. Though he relished a fat fowl well cooked as well as any one, he would not go to the expense of anything but an old leaky house, and had never time to have it cleaned out. Now he has one of these houses in one corner of his large barnyard, and two more about 200 feet apart, and one near the milking pen. By shutting up two cocks and 20 hens in each, and keeping them confined a day and two nights, he finds that they return to their own houses to roost. Some hens would lay in the houses, but boxes were placed for them in corners, and the small doors shut during the day and opened in the evening. By closing at night, all fear of vermin is done away with. Those too lazy to clean out a hen house can lift them over by the corners to new ground, removing the roosts. A small quantity of kerosene poured on the roosts, and a half hour's work with a whitewash brush inside the houses prevents the accumulation of vermin. If at the time of our first rains the fowls show signs of colds, running at the nostrils or wheezing after they go to roost, and before they are let out in the morning, they can be fumigated, as I described in my last article in PRESS of December 20th.

Of course, if more than one variety of chickens is kept, they must have separate yards; because, though each flock will seek its own house (with occasionally an exception) at night, they mingle in day time. I use moveable fences eight feet high, costing me about nine cents per running foot. If inquiries as to their make and use are sufficiently numerous to induce me to believe the description would be of general interest, I shall send it to the PRESS. Except for details not mentioned herein, I shall refer my correspondents, asking about houses, to the PRESS; and if they do not subscribe for and read this, our paper, the sooner they commence the better for them. Counting monthly, I receive now some 21 periodicals, and I have never missed reading every article in the PACIFIC RURAL PRESS, and have never yet received a single number from which I have not derived some information and benefit.

I reduce the cost of the houses herein described by using second quality or re-use lumber for all but the roof. Such lumber is sold in Napa at \$16 per 1,000 feet.

Feed for Chickens.

The mother hen, if cooped, cannot scratch for insects, minute larvae, etc., that form the appropriate food for young chickens. Therefore, for the first two or three days they should be fed with yolks of hard boiled eggs, chopped fine and mixed with an equal quantity of good sweet bread-crumbs. This will pay, as it is well to give the chicks a good start in life, at the commencement. Then, for about a fortnight, feed with two-thirds of the best corn meal, add to this a boiled potato or a handful of tender grass, chop the whole together. Calves' lights, hearts will do or anything else cheap. If the spot where the chickens run affords insects, then gradually leave off the meat, feeding with meal, cracked corn and wheat. But if in a city yard or other place where the forage is scarce then continue the wheat all through. The old-fashioned way of feeding nothing but corn-dough answers very well in a place where there are great quantities of insects. At first, feed six or eight times a day, and less often as they grow older. Feed enough at a time to have a little, and but a

little left, and when this is gone, feed again very soon. Give whole corn as soon as they are old enough to swallow it, and as great a variety of other things as possible; bran, wheat, screenings, oatmeal, etc., all they will eat. There should not be the slightest parsimony in feeding chickens. You cannot make them grow too fast or make them too fat while gaining their growth. With adult fowls the case is different in respect to fattening. Growing chickens must be supplied with pounded shells, bone dust, or lime in some form, if strong frames are desired.—Live Stock Journal.

THE VINEYARD.

Dr. Blake Reviewed.

EDITORS PRESS:—No doubt many of your readers are more or less interested in the wine business, by raising grapes, making wine or drinking it. To such the paper read by Dr. Jas. Blake, found on p. 350 of the PRESS is very interesting.

While most practical wine makers will agree with the Dr. in some of his remarks, especially in his quotation from Mr. Bender, of France, in regard to the adaptability of the soils, climates and locations of vineyards to the different varieties of grapes, which it will require centuries to learn, he is certainly wrong in his chemical analysis and deductions therefrom, or I and nine-tenths of all wine-makers are in a deplorable state of ignorance in regard to the component parts of grape juice, which for brevity we all "must," and if the Dr. will please convince us of our error, we will be under lasting obligations to him.

If the Dr. will excuse me, I will indulge in criticising his analysis of the most of the different varieties of grapes in which he gives the percentage of sugar as well as malic and free acids. Now chemists distinguish the acids of the grape as the vinous malic grape, citric, tannic, gelatinous and paracitric acids, but we simple wine makers confine ourselves by calling them all combined, fruit acid, without paying any regard to the details of its combination.

Fruit acid is what gives to cider, or wine vinegar its superiority in taste to vinegar made of alcohol, which when unadulterated contains the pure acetic acid, but which is mostly what they call strengthened, by an addition of sulphuric acid, which eats out the inner coat of the stomach of those using it.

According to the Dr.'s analysis the Mission grape contains 071 per cent. of acid, which is by us considered a rather full proportion; but if he only got 215 of sugar, his grapes were of a worse quality than any I ever worked. I have had most of them weighing 32 per cent. on the saccharometer, and was convinced of its correctness, by distilling one pound of alcohol out of every two pounds of saccharine indicated by the scales, of course after the fermentation was ended. Any must containing less than 25 per cent. of sugar, will not make a drinkable wine, without scientific doctoring, as we call it.

It is an easy matter to correct an excess of sugar and also of acid in must, providing they are both in the same proportion, which is but seldom the case; the difficulty is almost invariably in an undue or disproportionate excess of acid which is not so cheaply remedied.

If, according to the Dr.'s theory, the Mission grape contains too much sugar and a deficiency of acid, it would be very easy to remedy that defect by harvesting it at an earlier stage of ripeness, before so much of the acid is converted into sugar. But I always find the contrary to be the case; that is, an over excess of acid in the most thoroughly ripened Mission grapes. In all my experience I have never found the grape that was deficient in acid for wine making; and it is this excess of acid which gives to most American wines that harshness which keeps them below par at the Eastern markets, by the side of the celebrated article imported from the Rhine.

Contrary to the Dr.'s supposition, that the acid splits itself into alcohol and ether, Leibig has ascertained that the must containing the least acid and the most sugar, everything else being equal, will produce the wine richest in bouquet as well as alcohol; and, we all know, that by the escape of carbon during the fermentation from the sugar, it is converted into alcohol, and the acid will always remain acid.

My experience of five years wine making in California teaches me that the superiority of the foreign over the Mission grape for wine making, lies in the larger proportion of sugar over the acid, which their must contains. Fearing of getting too lengthy I will close, hoping to hear again from the Dr. H. G.

Santa Clara, Jan. 1st, 1875.

FIRST USE OF POSTAL CARDS.—Prof. Emanuel Herman, of Vienna, first introduced postal cards. They were used in England, Germany, and Switzerland in 1870, in Belgium and Denmark in 1871, and in Norway, Russia and the United States in 1872-3. In some foreign countries a card is attached on which an answer may be returned.

SHEEP AND WOOL.

The Sheep Interest in America.

The sheep business is beginning to settle down upon a regular basis with vast proportions. The time has long passed when farmers in the Eastern States could grow wool at a profit in competition first with Ohio and then with Michigan and Illinois. It was wise in them, therefore, to breed good animals to be sold for propagating purposes, and thus Vermont did good service to the sheep interest by raising the grade of American merinos to what is indispensable—a fixed type. Presently wool growers further west competed with the Ohio men by producing large quantities of wool, and so they of Ohio began breeding fine sheep; thus gradually one section after another has been superseded as a specially wool producing one, and found the greatest profit in breeding for fine points, and now good rams are produced in western Iowa and Missouri to be sent to the plains and the Rocky Mountains countries.

Some five years ago the Texas flockmasters introduced good male animals from Vermont and Ohio with speedy favorable results, and last year the large flockmasters of New Mexico followed their example.

The Texas wool of this year is every way acceptable to manufacturers, as the total shrinkage was only about 40 per cent. and as they paid from 38 to 40 cents only per pound, and, as most of it is capable of making fine delaines, the profits have been handsome. The best Texas wool comes from the northern part of that State, a region of plateaus, where the grass is fine and rich. More care has been taken with the flocks than formerly, as good blood has come in, and the average gain has been over a pound.

In a few years more it is likely to be increased to three and even four pounds. The wool comes into market freer from dust and dirt, because it is now largely transported by rail, while formerly it was hauled several hundred miles over dusty roads for weeks to reach a point of shipment. The business is now rapidly spreading over a vast extent of country, reaching from Southern Texas to the Missouri river, while the advancing large flocks have found their way through the passes of the Grand and Gunnison rivers.

The increase of the wool product of California has been almost miraculous, and it is estimated that the clip of this year will reach 60,000,000 pounds, against 32,000,000 in 1873. The wool capacity of that country is certainly great, and so also is that of the country east, including Nevada and Utah; but it is doubtful whether the grass will ever produce wool as profitable as that grown in the Rocky mountains country and the plains of Texas. The present aspect in this direction is unfavorable, for the shrinkage of California wool is over 50 per cent., though this may be due to the comparatively low grade and to the extremely large flocks, as such do not generally receive the care given to the smaller ones. The profits to sheep growers in this region is greater than in any other part of our country, for it is stated on what seems good authority that the increase of flocks is from 80 to 90 per cent. per annum, leaving the wool, which will far more than balance the outlays for herding. As a general thing no winter feed is required except for ewes.

But, with such advantages, the business is far from being popular, for the reason that constant attention is required. The sheep must be in sight of a shepherd all day long, and their condition must be watched by an experienced eye with a view of providing remedies in detail whenever needed. This signifies that one is to be as faithful as a first-class mechanic or salesman; and for want of these qualities the losses in sheep growing have been so heavy that large flocks have gone to ruin, both in the settled States and out on the plains.—*N. Y. Tribune.*

CROSSING COTSWOLDS ON MERINOS.—The *American Farmer*, in answer to a question as to which would be the better plan, crossing merino bucks on Cotswolds, or the reverse, correctly says:

In theory, it has been held that a large male should not be crossed upon a small female, and, therefore, that a Cotswold ram upon a merino ewe would be too violent a cross; but experiment has shown this incorrect. There appears to be, practically, no objection to this cross, as it has been quite successful in establishing several profitable flocks. The lambs are found to be sought after by the butchers, and bring almost the price of Cotswolds, and the wool is such a happy medium between the fine and the long, as to answer the purpose of both. This cross, however, should only be made upon two or three-year-old ewes. They fatten readily, and, at the proper age, are as profitable to feed as pure Cotswolds.

TO KEEP ICE FROM WINDOWS.—This advice is hardly appropriate for our California climate under ordinary circumstances; but if the cold continues to increase as it has for the last two weeks, it may be found useful even here: Take an ordinary paint brush or sponge and rub over the glass once or twice a day, a little alcohol. This will keep the glass as free from ice as in middle of summer, and give as fine a polish as can be got in any other way.

THE HORSE.

Burs on Horses Mains and Tails.

[Written for the RURAL PRESS.]

"Hallow! neighbor Jones; good morning, sir; quite a fine horse you have been getting. Where did you get that fellow?"

"Get that fellow! How! What is the matter with you? May be I stole him."*

"Well, I don't know, as you stole him; but as to whether or not some one hain't palmed off a stolen horse on you may be the question. For what is that main and tail bobbed off?"

"Well! Well! I guess we will just have John Smith examined and sent off to Stockton. Raise a horse, work him seven years, then sell him to you neighbor and the first time you meet him don't know him?"

"Why that ain't old 'Ceilum.'"

"Well, now, this is old 'Ceilum.' Just had him in the cackle burs a little, that's all."

"Well, if any Stockton is in the case we will just give Bill Jones a rub; for a man to go and disfigure up as noble a beast as old 'Ceilum' in that manner, I hardly think could get clear of a conviction of insanity. I have as many cackle burs as you have and I always took care of that main and tail in bur time."

"Took care of it; so did I take care of it. I always took out every burr that got in, and you see what's the matter—took all the main and tail off after a while."

"How did you take care of old 'Ceilum.' Were it not for that cow ranch floating down burs on us every year we might get rid of burs, but I have fought burs till I am tired; and 'tis no use."

"Well, here is just how I have always managed it; I keep a little tarred hemp on hand, and when bur time is on I braid up the main and tail mixing in the hair just a little hemp, just enough to knot well, and when I drive out to town, 'tis about five minutes work to throw out the breeze the main beauty of a horse—a beautiful main and tail."

"Well, but suppose just a thousand and one burs already in the main and tail, then how about the breeze?"

"That's no big job; just take a little lard oil, put a little on the nape of the neck, and a little to run along the tail bone—just enough to strike the roots of the hair; let alone over night and by next morning the burs will work out twice as easy. Or, for a horse that I am in no hurry about, I just pour on plenty of oil, repeat every day or two, let them run in the lot and roll in the dust as they please, and most of the burs will soon work out of their own weight. Work out burs in oil, and you need not have much trouble, nor make your horse look like the 'rag-tag and bob-tail of all creation.'"

Horses and mules that are well broke and well fed bring ready cash in Los Angeles, at a good round figures. If they are not large enough for the harness, no matter; if they will carry a man, or a pack, and not act the bronco; they will bring ready cash at the auctioneer's block.

The New Homestead Plan.

We are requested to call the attention of Eastern editors and readers to the following "California Letter" from the Corresponding Secretary of the State Grange Committee on Immigration. The explanations following are of interest to readers at home and abroad:

"California is now attracting about one thousand people a week to her beautiful valleys, who are trying to escape from the rough climate of their childhood. Many desire to make new homes in a land where they can enjoy perpetual summer and have their fruit, and flower gardens always in bloom. The rush toward the Pacific is quite as great now as it was in early times, when those who came expected to accumulate a fortune from our golden sands, and return to their native homes to enjoy their suddenly acquired fortunes and spend the remainder of their days in luxury. At that time no one thought of residing permanently in this inaccessible territory, where the only exports for generations had been hides and tallow. Wild cattle roamed at will, through the valleys and rendered it unsafe for the pedestrian. They sold at a dollar a head, the land thrown in hardly worth mentioning. This was the condition of our country when Americans were first attracted to her shores.

Bread had to be imported at great expense, until some indomitable Yankee, experimented with the cereals and demonstrated that even the hills and mountains would bring forth abundantly with little or no attention from the husbandman. The home demand was soon supplied and now we export more wheat than all the rest of the United States combined. It is estimated that we will ship about \$40,000,000 worth this year at last year's prices. Only about one twentieth of our arable land is in cultivation, yet we surprise the world with our wonderful surplus. When properly populated they can estimate the value of our productions?

Wheat, barley, and wild oats are used for hay in place of timothy, red top and other perennial grasses, reducing the average yield per acre as indicated by those who write on this subject from statistics instead of observation.

We harvest more than one-fourth of all the barley produced in the United States. This

crop yields well, and requires very little labor or attention especially where allowed to volunteer from year to year, hogged off, and converted into pork worth five cents a pound on foot.

About twenty years ago a young Ohio shepherd started for this coast with a few hundred sheep, and although laughed at by some, and pitied by others who regarded him as insane, he trudged along after his little flock and arrived in due time with three or four hundred, at his destination. That young man still in his prime has the satisfaction of seeing California surpass Ohio in his chosen pursuit, and yield about one-third of all the wool produced in the United States. After supplying the factories of the Pacific coast this year, we expect to export about 36,000,000 pounds.

More than three-fourths of the wine produced in the United States is manufactured in the State of California, and the people of Santa Barbara have the largest vine in the world, more than a foot in diameter, covering a trellis 60 by 72 feet, and yielding annually from four to six tons of grapes.

Immigration has been retarded in consequence of the fact that about one-twentieth of the land in the State, including many of our most delightful valleys, are owned by private parties under Mexican grants, called ranchos, containing from one to eleven square leagues, formerly of nominal value and now in the market at from two to ten dollars per acre.

Many of these charming little valleys are admirably adapted to colonizing and dairying under the factory system, where it is desirable to prolong the season to ten months by soiling with green corn fodder, sorghum, beets and squashes, each of which may be made to yield from 25 to 40 tons per acre.

A New Homestead Plan.

Those vast ranchos often containing 40,000 acres can only be purchased by colonies or companies in consequence of the large amount of capital required. A homestead association formed in October last has located in this county on Lompoc (Lompoke) rancho in the fertile valley of Santa Ynez near Point Conception.

We are to pay \$500,000 in ten annual instalments for about 47,000 acres of land, the valley portion of which has been carefully surveyed into 5, 10, 20, 40 and 80 acre lots and sold to the highest bidder, members of the association having the preference, for which the company has already realized about \$700,000 and have three-fourths of the rancho remaining unsold. A town site was selected in the valley and 640 acres cut into house lots, one-tenth of which brought about \$70,000 under the hammer. With proper management it is expected that the town lots alone will sell for enough to pay for the whole rancho so that the agricultural stockholder will ultimately get his farm for his sagacity. Twenty-five per cent. of the fund arising from the sale of town lots has, by resolution of the stockholders, been set apart as an endowment fund likely to amount to \$100,000 which is to be used for the maintenance of an agricultural college and experimental farm. Another fund, which will probably amount to \$30,000 has been provided, for the erection of a modern, elegant, commodious, substantial public school building quite as good as people generally enjoy at the east after the labor of generations.

Thus, in a week we have arranged for one of the most liberal, enterprising, educational, temperance towns that can be desired by the most refined and fastidious, where they may rear and educate their families and where the snares and vices of the dram shop will never endanger the habits and morals of their children. Instead of paying two or three hundred dollars per acre for land near the town in valleys already settled the immigrant can join with others, purchase a rancho in an unsettled valley at five or ten dollars per acre, start a new town in harmony with the most advanced principles of modern society, divide and settle the valley lands and dispose of the remainder to the grazier, and in this manner with a small capital secure social advantages that are usually enjoyed alone by the affluent.

Already the people of Los Angeles have formed a company and are about to subdivide one or more of their choicest ranchos, and the same thing will be repeated here until these charming valleys, once occupied alone by the bovines, become the floral gardens of hundreds of thousands who flee from their frozen homes to dwell where they can enjoy the vine, fig, apple, olive, almond, and the orange in a fairy land where December is as pleasant as May.

At the last annual meeting of our State Grange a Committee on Immigration was appointed and organized for the purpose of aiding those who desire our assistance in selecting and securing homes.

Persons writing letters of inquiry should be careful to give their name and postoffice address.

Santa Barbara, Cal.

USE FOR SNAKES.—A farmer in Washington county, Ky., has found a practical use for a snake. For two years he has had one shut up in his corn crib, and all that time not a single mouse has been seen there.

EUROPEAN LANGUAGES.—A recent calculation, relative to the European languages shows that English is spoken by 99,000,000 of persons, German by 45,000,000, Spanish 55,000,000 and French by 45,000,000.

EELSKINS dried and cut in slips make very strong belt lacing.

USEFUL INFORMATION.

MYSTERY OF THE LAKES.—Lake Erie is only 60 or 70 feet deep; but lake Ontario, which is 592 feet deep, is 240 feet below the tide level of the ocean, or as low as most parts of the Gulf of St. Lawrence; and the bottoms of lake Huron, Michigan and Superior, although the surface is not much higher, are all from their vast depths, on a level with the bottom of Ontario. Now, as the discharge through the river Detroit, after allowing for the probable portion carried off by evaporation, does not appear by any means equal to the quantity of water which the three upper lakes receive, it has been conjectured that a subterranean river may run from lake Superior, by the Huron, to lake Ontario. This conjecture is not improbable, and accounts for the singular fact that salmon and herring are caught in all the lakes communicating with the St. Lawrence, but no others. As the falls of Niagara must have always existed, it would puzzle the naturalist to say how these fish got into the upper lakes without some subterranean river; moreover, any periodical obstruction of the river would furnish a not improbable solution of the mysterious flux and reflux of the lakes.

BLASTING ACCIDENTS.—A HINT WORTH REMEMBERING.—Most people are familiar with the fact that friction of the feet on a dry carpet or other non-conducting floor is capable of so charging the person with electricity that a spark may be drawn from almost any part of the body. Thus it is a common trick to light the gas with the finger after shuffling along the floor. An exchange calls attention to the circumstance that the facts just stated may prove to be a frequent but little understood cause of accidents in blasting, and which applies to powder as well as nitro-glycerine. The blaster, not aware that he is often a walking charge of electricity, proceeds to his work, inserting cartridge after cartridge of nitro-glycerine, until he comes to the last, which is armed with the electric fuse. The moment his hand touches one of the naked wires, a current of electricity may pass from his body through the priming, and produce an explosion. Hence, before the blaster handles the wires he should invariably grasp some metal in moist contact with the earth, or place both hands in contact with the moist walls of the tunnel or shaft in which he is working.

COMBUSTION OF COAL.—Combustion is a chemical process, consisting usually in a combination of the elements of our atmosphere (the oxygen) with the fuel. The main substance of fuel, especially when it is coal, is carbon, and the chemical equivalent of this, 12, combines with two chemical equivalents, 2x16, or 32 parts by weight of oxygen, which is equal to two and two-thirds parts of oxygen for every part of carbon. A pound of coal requires thus two and two-thirds pounds of oxygen for its perfect combustion; as now one pound of this gas under ordinary atmospheric pressure occupies a space of some 12 or 13 cubic feet, or two and two-thirds pounds of oxygen a space of 34 cubic feet, which in the air is diluted with four times this amount of nitrogen, it requires five times this quantity, or not less than some 170 cubic feet of fresh common air to furnish the oxygen required; it is therefore necessary to pass 170 cubic feet of air through the furnace gates in order to secure the perfect combustion of every pound of coal. If less air is passed, the combustion is retarded, while an excess of air cools the furnace.

SPONTANEOUS FIRE IN HAY.—A somewhat remarkable case of spontaneous combustion occurred last fall at Aztalan, Wisconsin. Mr. James Payne, a well known farmer of that town, some time since cut and put into his barn about ten tons of clover hay, which was quite in a green condition. A few days afterward smoke was seen issuing from Mr. Payne's barn, and it was soon discovered that the clover was on fire, and only by the most strenuous exertions of himself and neighbors were the flames finally extinguished. The fact of spontaneous combustion from the fermentive heat of uncurd clover, is admitted by all as being the cause of the fire.

DETECTION OF ADULTERATED WINE.—M. De Cherville gives the following useful hints for deciding whether red wines are artificially colored or not: "Pour into a glass a small quantity of the liquid you wish to test, and dissolve a bit of potash in it. If no sediment forms, and if the wine assumes a greenish hue, it has not been artificially colored; if a violet sediment forms the wine has been colored with elder or mulberries; if the sediment is red, it has been colored with beet root or Pernambuco wood; if violet red, with logwood; if yellow, with phytolac berries; if violet blue, with pivet berries; and if pale violet, with sundflower."

A PROCESS of pulping leather in engines, similar to those used for beating rags in a paper mill, is now in use in Massachusetts. By rolling into sheets under considerable pressure, a product of great tenacity, homogeneity, and closeness of texture is obtained which is, moreover, perfectly waterproof.

SINGULAR FACT.—When the beautiful feathers on the breast of a humming bird are examined under the microscope, no colors are to be seen. The brilliant tints come from the display of light upon the bird under different angles.

PATRONS OF HUSBANDRY.

STATE GRANGE HEADQUARTERS.

I. G. GARDNER, State Agent; Executive Committee Rooms: Fruit Growers' Associations, and Farmers' Mutual Life Insurance Company, all at No. 6 Liedesdorf street. W. H. BAXTER, State Secretary, at Grangers' Bank, 415 California street, S. F.

Grange Clubs for the Rural.

The Secretary (or some other Patron) is invited to act as club agent for the PACIFIC RURAL PRESS in every Grange. Circular and sample copies sent free. Five or more names will constitute a club, at the rate of \$3 a year. No new subscriptions will be taken without payment in advance. We will pay the postage after Jan. 1st, 1875. All club subscriptions in Granges should end on the last day of the month. Old subscribers may join the club by paying the Secretary up to club dates. Every Patron farmer should read a reliable agricultural paper. We need the support of all on this coast. Help the Secretary (or club agent) to make up a large list in your neighborhood. Don't delay.

NOTICE.

From and after this date, all moneys due to the State Grange by Subordinate Granges should be forwarded to the Grangers' Bank of California, No. 415 California street, San Francisco, together with reports appertaining thereto, addressed to me.

JOHN B. CARRINGTON,
Treasurer State Grange.
November 4th, 1874. 19-v8-4f

Installation of Officers.

Any member of the State Grange is empowered to install the officers of any Subordinate Grange.
J. M. HAMILTON,
W. M. State Grange of Cal.

Extra Copies of the Pacific Rural Press

Containing Grange addresses, resolutions, obituaries, etc., will be furnished post-paid at ten cents per copy. Grangers wishing numerous copies should send the order for them with the MS.

Secretaries will be supplied with a printed list of subscribers for this paper upon sending a list of post offices within the range of their Grange. Also with blank reports, etc., for clubs.

Grange Directory.—A full list of officers of the State Grange, Deputies, names of Councils, Subordinate Granges, Masters and Secretaries will appear in this department on the first Saturday of each month.

Important Trade Movement.

The Mississippi Valley States are now paying \$45,000,000 annually to Eastern importers for South American goods—such as coffee, sugar, hides, wool, etc. Of course a large profit accrued to the Eastern importers and capitalists in the way of commissions, high freights, etc., to say nothing of the exorbitant railroad charges for transporting these goods across the country after their arrival in New York, all of which the Western producers have to pay.

The Granges throughout the valley have been looking into the matter, and are now organizing a movement having in view the establishment of a direct and reciprocal trade by the way of the Mississippi river, between the South American ports and the Mississippi Valley States. This arrangement also contemplates the direct shipment via the same route of a large portion of Western agricultural products to Europe, and a reciprocal trade in that direction also. In order to make the movement effectual it will be necessary that important and permanent improvements should be made at the mouth of the Mississippi river. To this end it is proposed to apply the jetty system of Capt. J. B. Eads, which has succeeded admirably at the mouth of many important rivers in Europe, and which eminent scientific engineers have pronounced perfectly applicable to the mouth of the Mississippi.

Of course this improvement is opposed and ridiculed as impracticable by the various combinations of Eastern capitalists, who are determined to maintain their supremacy over the Western trade by means of their allied railroads on the continent and their steamship and sailing fleets on the ocean. Altogether the fight promises to be a very exciting and earnest one both in Congress and in the commercial world; but by the heavy advantages which the farmers now possess for combined action through the medium of the Grange organization and the paramount interest which the entire West feels in the matter of the Mississippi river improvement, there can be no question but that the incoming Congress will grant all the aid necessary in that direction; and when that obstacle is overcome, the natural laws of trade will need to be only slightly pushed to effect all that is desired to make the entire country bordering upon the Mississippi quite independent of either New York or Baltimore.

Such a result cannot fail of working great advantage to Western producers, and will be the indirect means of introducing extensive manufactures of cotton and wool into that portion of the Union. The Executive Committee of the Missouri State Grange has taken hold of this work in earnest, and, as a first step in the furtherance thereof, have called upon the Granges of all the Valley States to memorialize their Senators and Representatives in Congress, at once, to give their earnest and cordial support to Capt. Eads' jetty plan for the immediate improvement of the mouth of the Mississippi.

Report of State Grange on Labor and Education—Resolutions of Subordinate Granges, Etc.

[Written for the Press by Mrs. C. I. H. Nichols.]

Like the old lady in the back-woods, who "felt as if her soul had eaten something" after reading a chapter in Baxter's *Saints' Rest*—I gave thanks over the "Report on Labor and Education" adopted by the State Grange in its late annual session.

The waking up of the Grangers to an active participation in the educational interests of the State, with a view to greater practical efficiency, is one of the most, if not the most hopeful feature of the movement. For practical education carries with it every other material condition of social prosperity. It is the Archimedean lever that moves and governs the world.

I have, as a matter of course, been an interested observer of the school-book question as presented by subordinate Granges through preambles, resolutions and comments in the columns of the Press and Granger. And a point to which I wish to call attention is the fact that these resolutions and comments culminate in the expense involved in the changing of books, and not in the relative value of books as educational aids. In common with those having children to educate, I have felt the inconvenience of changes involving expense without equivalent advantages.

But there is a broader view of this subject which I am persuaded is the proper view, since the expense incurred in the purchase of books—as in the salaries of superior teachers—is inconsiderable, compared with the time and money wasted in the use of those ill adapted to the thorough development of the capabilities of the pupil.

The report adopted by the State Grange calls for more and better books—books that instead of cramming the memory to a condition of indigestion, with tongues and sounds, give it digestible knowledge in practical and technical directions. Such books, appealing to the natural taste of the pupil, would develop his natural endowment—if such he have—for some particular pursuit, trade or profession, and by pre-occupying his mind with congenial topics, would prevent the formation of a morbid appetite for trashy literature. By discovering the natural bent of the child's mind, such a course of instruction would often save the parent from the too common folly of spoiling the man in a blind effort to make of him a "figure head."

Children are eager to understand the mysteries of plant and animal life as they encounter it in their daily walks. I have seen the boy of four summers, lie on his face for hours beside an ant hill, returning to the same spot day after day—watching the ants as they came and went, or repaired breaches and opened new passage ways to their underground homes; and he could tell all that his unaided eye could discover of their habits and belongings. "Mamma," asked a little three year old girl, "how can flies walk on the ceiling? I would fall." Fortunately the mother could explain and the child comprehended enough to deepen its interest in the animal economy.

In my childhood I sought eagerly, but in vain, for some work on architecture to make intelligible the descriptions of palaces, churches, ships, fortifications, etc., found in my historical readings. Neither public nor private libraries, nor the schools, furnished anything of the kind. I went to the house carpenters for information, but beyond baseboards and mouldings and cornices, they could tell me very little. Many a mischievous pair of little hands would give profitable and enjoyable occupation to restless constructive faculties, if they were allowed safe and simple tools, and elementary instruction directing their uses. With his pick and shovel, his spade and hammer, the young prospector would "pan out" an intellectual currency of lifelong value. With eyes alight and eager tones, our children challenge the various phenomena of the heavens, the fields and the ocean. Answer their challenge with illustrated elementary works—in connection with lessons in drawing—and the result will be seen, not alone in the increased numbers and skill of workmen in the arts, and teachers in the sciences; but in a general diffusion of the cheerful self-reliance, which is born of conscious equipment for one's life work, whether it be professional, mechanical, or farming and its kindred occupations. We are all onwards in the dark, and there is no darkness so appalling and impervious to cheerful endeavor as the ignorance that broods over its task, painfully doubtful of results.

So much I have felt impelled to say in behalf of more books, as called for in the report adopted by the State Grange.

The resolutions of certain subordinate Granges, in declaring that the books in use are sufficient in number and good enough in quality, it will be seen, are in conflict with this report, and seem to imply that perfection in the common school course of instruction, has been already attained; or that to change its methods, or add to its topics, or set aside a too elaborate or complex treatise, if any such in use—will not pay!

The need of better books and better teachers is not a point to be argued. We have an experience that teaches the deficiencies of both—from the common to the high schools—not in California alone, but as represented by official reports of school boards in nearly every State of the Union, and in providing normal schools and educational boards, we are but giving expression to our consciousness of the fact. As culture approximates without attaining to absolute perfection—there can be no "good enough" way station to warrant a dead halt in our progress.

The Grange as a "Separator."

It is to be feared that too many of our Granges lose sight of its educational advantage in devoting too much time to business and to mere routine work, initiations, etc. Much time must necessarily be taken up in initiating but all reasonable efforts should be made to have that part of the work done in as large classes as possible, to give time for the improvement of the members in discussing questions of practical interest. An exchange in alluding to the importance of this part of our Grange work, very properly remarks that almost every farmer has ample time to prepare at his leisure his experience in some specialty of farm work, so that when he comes to the Grange he may have something to say which shall be of practical profit to his brothers, and in turn will be repaid by listening to the experience of others. It is thus that the Grange may be employed as a "separator," to winnow from the chaff of impracticability and secure the pure wheat of sound and valuable facts. Consultation and comparison will enable the Patron to reject what is unsound and modify what is extreme.

In agriculture there are very few if any trade secrets discovered and jealously guarded by individuals. When the farmer has discovered some new and useful fact, he generally hastens to make his brother farmers acquainted with his knowledge. Especially is this the case among Patrons. This fraternal feeling, which cannot be too highly recommended, should be encouraged by our Order. Let every subordinate Grange become an agency for such work. Let discussions be everywhere inaugurated and encouraged. They will soon be promotive of good in many ways. Every Grange should find ample scope and time for a free and fraternal interchange of opinions on practical subjects, at least once a month. Some of the Mississippi Granges, in the furtherance of this idea, have adopted the plan of appointing one of their number at every meeting to open the discussion, either by a short speech or written essay, on some given question at the next meeting. He is expected to study the question during the interim, and his ideas—crude, perhaps, on the whole—can never fail to contain some wheat from which the chaff is sure to be winnowed by his brother Patrons, during the discussion which follows his reading.

The Collegeville Fire.

It will be seen by the following account from our agent that the Collegeville Grange, though suffering severely by the late fire, is not disheartened. The sympathies of the whole Order are with them in their severe trial, and the zeal and energy manifested by them is highly commendable. Our agent sends us the following in connection with the fire:

On Monday, December 14th, the College of Collegeville, was destroyed by fire. It was a two and a-half story building, built in 1867; cost, \$8,000; size, 40 by 70 feet. The second story was occupied by the Collegeville Grange. They lost all books, regalia and everything except the Treasurer's book, which he had at home—no insurance. Mr. Andrew Wolf is the greatest loser; his loss is \$2,500. Mr. Garwood and Mr. Anglin also lose. The Grange met at a neighbor's house on Wednesday, the 30th, and have concluded to build a hall in the spring. It is considered a great loss to the neighborhood. I was introduced in the Grange by Dr. Chalmers. I enjoyed the hospitality of Mr. A. Wolf over night, and found him a jovial fellow and a good farmer. His farm is the best managed farm I have seen thus far in San Joaquin county. All the stables and other buildings are whitewashed and present such a good appearance that travelers often mistake his place for Collegeville. He raised in 1874 a crop of 17,000 bushels of wheat, or 400 acres.

A GOOD FARMER.—Some one, in reply to the query of "what is a good farmer?" has said that he should be a man of good common sense; should possess care, skill and a faculty of good management—and one who never looks back except to see that his furrow is straight. The question was admirably answered, and we may add that these are most essentially the points that are taught in the Grange. Neither the Agricultural College nor the actual experience of the farm itself, can do so much toward impressing such a lesson as this upon the mind of the average farmer as the teachings of the Grange.

Notes of Grange Travel.

Not only do the farmers of this portion of San Benito county raise the finest of small grain and of tobacco, but also excellent fruits of many varieties. As I wrote in a former letter, I stopped with Bro. Uriah Wood, near San Felipe, and some ten miles from Hollister. His farm is immediately adjoining the farm of the Consolidated Tobacco Co., where Mr. Culp has made so famous a name by his method of curing the Havana weed.

I enjoyed an opportunity to examine Mr. Culp's plants and curing houses. Though driven all over his place I saw nothing but the small-leaved, or

Cuban Tobacco.

All concede that he is making a good article. Bro. Wood is also experimenting in a Chinese method of curing, which certainly promises to make a very superior tobacco. He had about six acres of the large-leaved or Connecticut tobacco only. Many of his plants were six and seven feet high. Some of the larger leaves were two feet nine inches long, and eighteen inches wide.

For one, I shall be surprised if his method of curing does not produce more choice tobacco from a stalk than Culp's. By his method all leaves can be well matured before curing; by Mr. Culp's method all leaves on a stalk are cured at once, whether mature or not.

Grand old sycamores abound along San Felipe creek, some at least 5 or 6 feet in diameter. Mr. Buck has an excellent nursery near Mr. Culp's. He is trying oranges, lemons and limes successfully, although his trees are young yet.

This is a great country for

Artesian Wells.

On his place of 150 acres he has five excellent flowing wells, and one that has ceased to flow. They are but little deeper than 100 feet. They make the smallest bores for these wells that I have ever seen. Their plan is to sink thick iron tubing, like gas-pipe, 2 or 2½ inches in diameter, and bore inside of them, as they sink them, with a 1¼ or 1½ inch auger. This method furnishes an abundant and safe stream of unfailing water. It is not safe here to bore with large augers, as Mr. Buck found to his sorrow by his well that has ceased flowing. And now for the biggest artesian well story that it has been my privilege to hear. But I will tell it to you about as it was told to me. Plenty of reliable men can vouch for its truth: Mr. B. had a large well made, seven inch bore, I believe. The yield of water was all he could ask. He made a fine tank over it, some 14 feet in diameter. It is supposed that by some means the water managed to work outside the pipe and thoroughly undermined the ground, for, suddenly, one day, tank, casing, and everything near sank out of sight. Never have they seen or felt that tank from that day to this. Its place is now occupied by a pool of water and sand.

You understand, then, why they bore no more large wells in that region. On the place of Bro. M. Nason, Worthy Lecturer of Hollister Grange, with whom a large party of us dined, I saw a new species of apple, which, without exception, is the finest fall apple I have ever met with anywhere. He calls it the

Skinner Seedling.

He and one of his neighbors have both a few trees of them. From numerous inquiries since I was with him, I learn this apple is even a much rarer one here than he supposed. The apple, when fully grown, measures 12 inches in circumference, is of a uniform shape and straw color, and of exquisite flavor. It is not so large as the *Gloria Mundi*, which I have seen when fully grown, in Contra Costa and San Luis Obispo counties, with a circumference of 15 inches; but it is a better apple in many ways. The tree is a fine bearer, and has remarkably strong, upright branches. It is an apple that well deserves to be more generally cultivated.

This letter, however, is getting long enough. About the Capay Grange meeting, September 10th, and the Council meeting at San Jose on the 14th, your columns have already contained such tall accounts of them that I shall only say here I shall always recollect them as most agreeable Grange meetings, such as I hope to enjoy again some day, with their participants.

Yours fraternally,

J. W. A. WRIGHT.

Dec. 29, 1874.

That Circular.

EDITORS PRESS:—I observed the communication in your last issue relative to a certain circular, the matter of which was taken from the *California Granger*. Said circular was printed with my knowledge, and said matter was used with my consent. It did not purport to come from the Secretary of the State Grange, nor from any person in authority; but it did suggest that the Granges throughout the State should take immediate action on the Text Book question, and forward their reports to the Secretary of the State Grange. The object was simply to get the many voices in one, so that no advantage could be taken of the variations and in some respects dissimilar expressions of the subordinate Granges. With this explanation of a matter for which I am not responsible except as indicated above.

Fraternally, G. W. HENNING.

Funeral at Santa Rosa.

EDITORS PRESS:—Christmas day, bright and beautiful, aye, charming; all nature dances in the glorious sunlight of the most charming of days, old and young are happy and gay; but among the happy millions, some are called to mourn, 'tis always so, and your humble servant having been warned a long time ago of a dissolution to transpire speedily if not sooner of a certain organization which sprang up in a night only to vanish like dew before the morning sun, and known as the Grangers. Did you ever hear of them, Messrs. Editors? Well they do, or did exist prior to this funeral, and as the prophets prophesied the aforesaid speedy dissolution of the aforesaid "Diabolical Granger Organization," and having been instructed from my youth up to reverence the prophets, I had been prepared, lo! these many days for the event when the angel of death should summon to the final disruption. The summons came, and I prepared myself for the solemn occasion. I dared not trust myself alone, I was anxious to have company, so I took my wife along to support, comfort and take care of me in case of an attack of debility you know. Well, on this beautiful brilliant Christmas day we started for Santa Rosa; steamer to Donahue, rail from there on. We arrived just in time for our supper, at our hospitable Bro. Coulter's. Wasn't that supper good? Well the next day, Saturday, at 10 A. M., was the time appointed for the obsequies of the aforesaid diabolical, defunct, deceased, demised, dead, "Diabolical Granger Organization" and thither we wended our way at an early hour, to witness the first droppings of the mighty shower that should deluge us with sorrow on that occasion. Drop No. 1—two horse wagon, mourners, diabolical Granger, wife, eleven young diabolicals, offerings, one big box, then another big box, no end to big boxes, one had "punkin pize" big as cart wheels, (come from Bennet Valley, that's the kind they make there) t'others had chickens and turkeys, (bronzed turkeys, you've heard of them no doubt; Col. Eyer, of Napa Grange, imports them for such occasions) others had figs and grapes and fruits of all kinds, milk and honey and wine, and will you just name something they didn't have if you can. Drop No. 2, ditto; 3, ditto; 4 and more, thicker and faster until the d-luge chumaxed; north, south, east and west, came to mingle their sympathies on this occasion, and such a funeral, such a line of carriages, such a flow of what d'ye call it, whenever you raise your elbow, you open your mouth? Sorrow, Oh yes, sorrow, I felt sorrow for them chickens, turkeys, "punkin pize," milk and honey and wine—you will please remember these are Christmas times, and the approaching dissolution of 1874, not the dissolution of the Grangers. Ah, no, Messrs. Editors, these prophets of Baal are false prophets, and such funerals shall continue till time shall end, so long as the people whose honest intent shall spur them on in the work worthy of Patrons.

There must have been near 250 present to participate in the festivities, to see each other, to learn something more of, and become better acquainted, to foster the fraternal feelings springing vigorously into existence, to cultivate the acquaintance and confidence so essential to success, and which is now permeating every avenue of the social feature of our Order.

Then we had addresses. Bro. Cressey, Vice President of the Grangers' Bank of California, interested the audience for about an hour with the condition of affairs connected therewith, and explaining what he wanted and expected them to do, and I believe they all did it, every one, if they didn't they ought to, and I know they will; if they don't I know they'll be sorry for it. Then we had soup and toasts, with the beautiful repast provided by the Sisters of Sonoma, it all came out of the big boxes before mentioned. Then more songs, more speeches, until the close of the services when with happy hearts and cheerful ad-ius each bled them away to their homes on the farm, to cherish the thoughts of the happy meeting of the Granges of Sonoma County.

Bennet Valley Grange,

The pioneer of old Sonoma, the banner county of the State desires no eulogy but her works. Look at her beautiful hall nestling in the evergreen grove on the hill side, contemplate her noble 34, all told, that's all there is, sisters and brothers; a hall 30 x 60 costing between \$2,500 and \$3,000; aye there's a Grange whose funeral knell shall never awaken the silence of the mountain valleys surrounding it. Come up, ye listless, idle, beetle-headed drones, who see no good in all this, and are dead; come up and see the De Turk, the Carr's, the Whittaker's, the Lacqua's, and all the Bennet Valleyites, then praise the Lord that he has given to the earth such as they, who dwell in the lands, and walk in the buttered paths of Sonoma.

Fraternaly, W. H. BAXTER.

The State Grange of Michigan meets at Grand Rapids, January 21st. The Executive Committee has rescinded the resolution reducing the representation one-half.

The State Grange Purchasing Agency.

EDITORS PRESS:—I observe in your last number a letter from "Hoosier Patron," showing the work that is being done by the State Agent in Hoosier land. While reading that letter it occurred to me that perhaps I had been negligent in my duties in not letting the public know what we are doing here. Since the failure of E. E. Morgan's Sons our business has shown a decided increase. Prior to the failure of the above named house the Executive Committee had ordered all consignments of grain and wool to be turned over to them for sale. Since the failure those articles of produce have come to me, thus largely increasing my business. I am a member of the Merchants and Grain Exchange, and have in my employ as good a salesman as San Francisco affords, and am in every way prepared to transact such business to the entire satisfaction of those consigning their produce to me.

I am making many purchases for Patrons from various parts of the State, from a pocket knife up to a gristmill, and have received numerous orders from Oregon, Washington Territory and Nevada. I have enquiries from Tennessee for Alfalfa seed. Have ordered in large quantities, strychnine from Philadelphia. I would respectfully call the attention of all Patrons to my report published in the proceedings of the State Grange at Stockton, showing the very large savings made during last year's operations, and ask that all give us a trial and enable us to show with what promptness their orders will be filled. Let them begin with the new year and purchase all they can through the Grange Agency, and at the end of another year compare the prices with the bills of last year's purchases in the old way, and observe the difference. We feel certain that in the future the agency will be fully appreciated.

I. G. GARDNER, Agent.

From the Granges.

Temescal Grange.

Saturday last Mrs. A. D. Colby was re-elected Pomona and Miss Eluora Bago re-elected Flora, after which the officers elect for 1875 were duly installed by Pat Master A. T. Dewey. J. V. Webster, the newly installed W. M., made some very sensible remarks for the good of the Order. He urged that those who accept office, no matter how humble the station, should be diligent and faithful in performing their duties punctually. That all should learn their work by heart, citing how much more effective are the beautiful lessons of our ritual, heartily repeated from memory, than when read school-boy fashion. He encouraged all to study the work. It will enrich the mind with lasting treasures, besides adding much to the pleasure of our meetings.

Several members urged promptness in attending and opening meetings. We believe that whenever a few of the officers in each Grange will meet and open the session at the fixed hour, promptness will soon become the rule with members generally. Next meeting, Saturday, January 16th, at one o'clock. Temescal Grange has an excellent list of officers and cheerful prospects.

Livermore Grange.

This Grange is to give a hop on Feb. 22d for the relief of the grasshopper sufferers of Kansas and Nebraska. These Grangers evidently think that one hop deserves another. Mr. Towne will be interviewed to see whether he will furnish a car to be loaded at Livermore with provisions and forwarded to the needy. This Grange sent \$50 to the Louisiana sufferers, and last Saturday sent \$26 75 to the Kansas people. There was a small attendance Saturday, or the last amount would have been larger.

Crop prospects good; never better. All we want is rain. People got their crops in fine order, though some of them stopped on account of the drouth. There have been decisions on some of the leading cases of land litigation. There are two or three classes of cases involving different points of dispute.

Pescadero Grange

Held a full meeting Saturday afternoon last. In the evening, joined by a large audience of friends, the officers were publicly installed by Bro. I. G. Gardner, State agent. A fine lecture on agricultural education was delivered by Bro. Dr. E. S. Carr. The public installation was attentively listened to with apparent favor. The pleasures of the evening concluded with dancing and social festivities. The visitors from abroad speak of Pescadero as a California village of rare attractions.

Cache Creek Grange and Text Books.

At a meeting of the above Grange, January 1st, 1875, the following resolution was passed and ordered to be sent to the RURAL PRESS for publication:

Resolved, That we, the members of Cache Creek Grange, No. 82, P. of H., oppose the change of any text books now in use in the public schools of California.

K. B. BUTLER, Sec'y pro tem.

San Mateo Grange.

EDITORS PRESS:—I presume you have hardly heard of San Mateo Grange. We are progressing slowly but surely. Enclosed you will find list of officers. The RURAL comes to hand punctually; will do all I can for it. I find your directory correct for San Mateo Grange, with the exception of the Secretary, which should be your humble servant,

CHAS. E. ROWE.

San Mateo, January 4, 1875.

Election of Officers,

EL MONTE GRANGE, No. 43.—Tuberville Gordon, M.; Peter Penfold, O.; Geo. C. Gibbs, L.; L. M. Rasmussen, S.; Stephen Penfold, A. S.; R. J. Floyd, C.; A. H. Hoyt, Sec'y; J. H. Gray, T.; G. D. Stallcup, G. K.; Mrs. Geo. C. Gibbs, Ceres; Mrs. Geo. H. Peck, Pomona; Mrs. R. J. Floyd, Flora; Mrs. S. Penfold, L. A. S.

FUNK SLOUGH GRANGE, No. 99.—L. D. McDow, M.; Geo. H. Ahle, O.; Geo. P. Hardin, L.; Wm. Daly, S.; J. G. Wolfe, A. S.; A. L. Fulton, C.; T. B. McDow, T.; E. C. Hunter, Sec'y; M. Harbord, G. K.; Miss Emma Benjamin, Ceres; Miss Eugena Benjamin, Pomona; Miss Anna Sutton, Flora; Miss Ida Fulton, L. A. S.

MT. WHITNEY GRANGE, No. 231.—G. W. Duncan, M.; Chas. Lawless, O.; O. H. P. Duncan, L.; Henry Witt, S.; T. J. Snyder, A. S.; J. W. Moore, C.; A. F. Thompson, Sec'y; O. G. Foot, T.; L. W. Gregg, G. K.; Miss S. B. Murray, Ceres; Mrs. M. Duncan, Pomona; Miss M. Catlin, Flora; Mrs. L. A. Duncan, L. A. S.

CONFIDENCE GRANGE, No. 14, SANTA BARBARA Co.: J. A. Norris, M.; John Newlove, O.; James Morse, Jr., L.; W. T. Scott, S.; John Miller, W. S.; B. O. Walker, Sec'y; A. Copeland, T.; J. A. Austin, C.; Archibald McKechnie, G. K.; Miss Mary Johnson, Ceres; Miss Sarah Wheelis, Pomona; Miss Angie Morse, Flora; Mrs. S. L. Walker, L. A. S.

CALAVERAS GRANGE.—M. F. Gregory, M.; C. Gall, O.; B. Thompson, L.; R. Thompson, S.; T. J. Kirk, A. S.; H. Rogers, Sec'y; S. Kirk, G. K.; Sister E. A. Kirk, C.; J. Kirk, T.; Nancy Harper, Ceres; Louisa Aightower, Pomona; Mary Cooper, Flora; Mrs. Gall, L. A. S.

YOUNTVILLE GRANGE.—J. M. Mayfield, M.; A. D. Grigsby, O.; J. S. Edington, L.; J. T. Cooper, S.; T. L. Ragsdale, A. S.; J. R. Davis, C.; Wm. Locker, T.; Frank Griffin, Sec'y; John Forrester, G.; Mrs. A. F. Davis, Ceres; Mrs. E. E. Griffin, Pomona; Miss J. Carson, Flora; Miss Lue Ragsdale, L. A. S.

SAN MATEO GRANGE.—A. F. Green, M.; D. S. McLellan, O.; Orrin Brerlin, L.; W. Price, S.; John Spaulding, A. S.; W. N. Newball, C.; J. E. Butler, T.; C. E. Rowe, Sec'y; Levi Flagg, G. K.; Mrs. J. E. Butler, Ceres; Mrs. Orrin Brown, Pomona; Miss Mary J. McLellan, Flora; Mrs. W. Price, L. A. S.

ST. HELENA GRANGE.—John Lewelling, M.; J. W. Sayward, O.; G. B. Crane, L.; C. Wheeler, S.; J. C. Weinberger, A. S.; D. Edwards, C.; Charles A. Storey, Sec'y; William Peterson, T.; John Howell, G. K.; Mrs. H. M. Allen, Ceres; Mrs. G. B. Craue, Pomona; Miss Kate Edwards, Flora; Mrs. H. A. Peller, L. A. S.

LOS NIETOS GRANGE.—E. B. Grandin, M.; O. P. Passens, O.; John Condra, L.; Thomas Isbell, S.; M. B. Condt, A. S.; E. Stockton, C.; A. S. Rayland, T.; W. S. Reavis, Sec'y; Robert Tabor, G. K.; Mrs. L. E. Reavis, Ceres; Miss M. Stockton, Pomona; Miss Jane Passens, Flora; Mrs. E. Condt, L. A. S.

NEW RIVER GRANGE.—W. Newton, M.; W. H. Settle, O.; T. J. Kerns, L. S. T. Corum, S.; M. J. McGouch, A. S.; D. S. Wardlow, C.; D. M. Harlow, T.; S. G. Baker, Sec'y; N. H. Price, G. K.; Miss F. F. Houghton, Ceres; Mrs. Greaves Pomona; Miss E. J. Sackett, Flora; Mrs. Meeks, L. A. S.

FRANKLIN GRANGE.—Amos Adams, M.; J. M. Stephenson, O.; W. S. Runyon, L.; J. W. Moore, C.; Isaac F. Freeman, T.; P. R. Beckley, Sec'y; Thomas Anderson, G. K.; Mrs. A. E. Freeman, Ceres; Miss Cassie Manpin, Pomona; Miss Belle Johnston, Flora; Mrs. W. Daniels, L. A. S.

ANTELOPE GRANGE.—John Sites, M.; William Rosenberger, O.; R. A. Clark, L.; A. A. Shearin, S.; John Taylor, A. S.; M. H. Shearin, C.; H. A. Logan, T.; P. Peterson, Sec'y; John Rosenberger, G. K.; Mrs. A. A. Shearin, Ceres; Mrs. R. A. Clark, Pomona; Mrs. M. H. Shearin, Flora; Miss Alice Oleghorn, L. A. S.

WORK SCHOOLS FOR GIRLS.—To show how they manage these institutions in Switzerland we give the following extract from the Report of the Commissioners of Education for 1873:

Instruction in these schools is gratuitous, and embraces knitting, sewing, mending, cutting and fitting, common housekeeping, the principles of economy and sanitary laws. To teach how to distinguish the different kinds of goods an album of samples is used. To instruct in sewing, patterns are drawn on the black board. All the members of the class do the same work at the same time. Theoretical knowledge of many branches of housekeeping is imparted, the why and the wherefore of many subjects connected with the welfare of the home explained and illustrated. Methods of cooking and preparing food, the relative digestibility and wholesomeness of different kinds, getting up simple dinners, how to use a fixed income so as to keep out of debt, are some of the points of a Swiss girl's education. A girl thus trained knows when she marries just how her husband's income may be used to the best advantage, and the great evil of living beyond one's means is thus entirely avoided.

CALISTOGA SPRINGS.—The Calistoga Spring property and real estate are to be turned over to a joint stock company, of which Colonel J. P. Jackson, Samuel Brannan, Julius Wetzel and three other persons will be directors.

General News Items.

CONGRESS.—A large amount of work is in preparation for Congress, during the recess and upon the reassembling there will be a rush of business as well as great political activity. The Arkansas Investigation Committee's report will then be forthcoming; to be followed soon after by the reports of several select committees now in various sections of the South, and the Civil Rights bill must be acted upon shortly, as it is at the top of the pile on the Speaker's table. The new finance bill comes up by special order on January 7th. The Senate Caucus Committee will make their report on cheap transportation. The Committee on Appropriations expect to have the remaining Appropriation bills completed by the time of re-assembling, and their consideration will be pressed upon the House forthwith; indeed, all the most important subjects are in such a shape as to be presented almost simultaneously for action.

THE SPANISH REVOLUTION.—A very sudden termination has been given to the Spanish Republic, by the proclamation of the son of ex-Queen Isabella, as King of Spain, under such circumstances as secured his immediate recognition by almost the entire army and navy and a large majority of the leading civilians throughout the country. Even Castellar, it is understood, with other leading Republicans, gives in his adherence. There seems to have been a very general impression that nothing else could restore that distracted country to tranquility. The European Governments appear to be very well satisfied with the result, and will recognize the accession of the young Prince of Asturias to power, as soon as he arrives and assumes the reigns of Government, which will be in a few days. The Prince is now about 16 years of age, but well educated and possessing a full understanding of the responsibility he is assuming.

TERRIBLE EXPLOSION.—Two miners were instantly killed in the Suto tunnel on the 30th ult., and a number of others seriously injured—one fatally. The accident was of quite a singular nature, and should be studied and borne in mind by all persons using nitro-glycerine: It happened at the time of changing shifts, and a blast was about to be exploded in the face, or header, of the tunnel. The men retreated back about six hundred feet, where the battery used in exploding blasts was situated. Several boxes of giant powder had been left near the battery, and when the blast in the header was touched off, the powder near the battery also exploded, by what means is not fully understood.

THE PACIFIC MAIL investigation makes slow progress. The testimony thus far looks bad for somebody, and especially for Mr. Congressional ex-Postmaster King. A Washington special says: If the testimony given in New York concerning Mr. King proves true this gentleman has subjected himself to the punishment attached to perjury, since in his examination before the committee in the last Congress, he testified then that he did not receive one dollar, either directly or indirectly, in behalf of the subsidy schemes. Efforts are evidently being made on the part of certain persons to cover things up.

THROWN FROM A WAGON AND KILLED.—The body of A. Roscoe, a farmer, about 70 years of age, residing about a mile from Sheridan, Placer county, was found Friday morning on the plains, north of the Rancho de Passo. The jury of inquest decided that he was killed by being thrown from his wagon.

GARIBALDI.—After all that has been said and done Garibaldi cannot be induced, even in his poverty, to accept of aid from any source—either public or private. He has just re-funded the substantial aid which the Italian Government offered him, on the plea that that the finances of the Government were suffering.

COLD WEATHER.—Halleck station, east of Elko is said to be the coldest point on the Central Pacific railroad. The mercury went to 9 degrees below zero there a few days since. Considerable floating ice from above was seen in the Yuba river at Marysville, yesterday something unusual in that region.

FIRE IN THE TULE.—During last week the tules on the Sacramento river, directly west of Marysville, were on fire, giving forth lurid flames at night, and clouds of smoke during the day time, when viewed from Sacramento city.

SPONTANEOUS COMBUSTION.—Some wool in the Oregon woolen mill at Portland took fire from spontaneous combustion, last week, but was extinguished before much damage resulted.

THE BECHER-TILTON CASE.—Five hundred witnesses were subpoenaed for the Beecher-Tilton case which went to trial on Monday. It is said that Beecher received 1,000 calls on New Years.

VASQUEZ.—The trial of this noted bandit commenced on Tuesday last. The law's delay could not be forced any farther.

DEATHS FROM FAMINE.—Accounts from Asia Minor show that distress from the famine is increasing, and that many deaths occur daily.

NEW POSTMASTER AT QUINCY.—T. F. Hersey has been appointed postmaster at Quincy.



Tired Mothers.

A little elbow rests upon your knee,
Your tired knee that has so much to bear,
A child's dear eyes are looking lovingly
From underneath a tangle of tangled hair.
Perhaps you do not heed the velvet touch
Of warm, moist fingers holding yours so tight;
You do not prize this blessing overmuch;
You almost are too tired to pray to-night.

But it is blessedness! A year ago
I did not see it as I do to-day—
We are all so dull and thankless, and so slow
To catch the sunshine till it slips away.
And now it seems surpassing strange to me
That, while I wore the badge of motherhood,
I did not kiss more oft and tenderly
The little child that brought me only good.

And if, some night, when you sit down to rest,
You miss the elbow from the tired knee—
This restless, curly head from off your breast,
This hissing tongue that chatters constantly;
If from your own this dimpled hand has slipped,
And ne'er would nestle in your palm again;
If the white feet into the grave had tripped,
I could not blame you for your heartache then.

I wonder so that mothers ever fret
At little children clinging to their gown;
Or that the footprints, when the days are wet,
Are ever black enough to make them frown.
If I could find a little muddy foot,
Or cap, or jacket on my chamber floor;
If I could kiss a rosy, restless foot,
And hear it patter in my house once more.

If I could mend a broken cart to-day,
To-morrow make a kite to reach the sky—
There is no woman in God's world could say
She was more blissfully content than I.
But ah! the dainty pillow next my own
Is never rumpled by a shining head;
My singing huddling from its nest has flown;
The little boy I used to kiss is dead!

"Where There's a Will There's a Way."

[Written for the PRESS by MRS. C. I. H. NICHOLS.]

"Tell us a story grandma, about when you were a little girl."

"Yes, grandma do. Did you have to speak pieces and write compositions when you were a little girl like us?"

"I did not have to do so my dears. But I began writing compositions at home before my teacher required it of my class at school."

"O, grandma tell us all about it. Is it a story?"

"Yes, it is a story."
"A true story?"

"Every word of it is true. And if you listen you may learn how to write stories and compositions."

"Oh, that will be nice! I do so want to know how!"

And the children drew up their chairs and smoothed their aprons and prepared to listen to grandmother's story of how she learned to write compositions when she was a little girl, and as there are many other little girls and boys, and pretty large ones too, who are anxious to know how, I will write out my little story for their amusement and instruction, and send it to the RURAL PRESS:

When I was a little girl attending district school, more than fifty years ago—books and papers cost more than they do now. Every family made its own ink, generally from maple bark boiled and set with copperas; and our pens were made of goose quills; and little girls didn't have pen-knives to make them with; and the boys couldn't make them with jack-knives. So you see it was not easy to learn to write without the help of parents in getting ink and paper, and a teacher or some older person, to make our pens. My father wrote a beautiful hand and was anxious that I—his oldest child—should write a good hand. So he refused me pen and paper, thinking in this way to prevent my learning to write until I should be old enough to acquire a handsome style of penmanship. It grieved me very much to be prevented from learning to write, for I did not like to fall behind my school-mates in anything, and they all had their "copy-books" at school and wrote a page every day. I had besides a taste for the instructive use of the pen and pencil. So, after a good deal of silent grieving, I set myself the task of learning to write without instruction. To accomplish this I carefully gathered every bit of waste paper; tore out the fly leaves of old books; cut off the white margins of the weekly newspaper and when this material was used up, I would go into the garret, where the hired men had stored large rolls of white birch-bark for torches, when they went fishing nights in a boat, on the river close by; and I cut off pieces of the bark and wrote on that. I liked writing on the bark, the letters were so smooth. I would take a penful of ink from my father's ink-stand and skip into the garret where a pine board, supported on two bottomless chairs, served for my writing desk. For copies I looked at the letters in the headings of my father's ledger, which were written in a plain, bold hand. When my father was away from home, on the warm pleasant days, I would take his pen and ink-stand out to a large pile of shaved pine abingles near the house, and pulling out the shingles, one by one, I wrote on

the smooth ends and then drove them back in place with a stone.

One day when I sat there in sight of the road, there came along two neat looking colored women; one was quite tall and dark, with good features, and carried a bundle; the other was a young woman, short and almost white and carried in her arms a pretty, smiling baby. "My little girl," said the old lady, "can you tell us the road to Canada?" I pointed northward, to the road that turned up the long, long hill and said, "that is the way to Canada." I then got up and made them the prettiest courtesy I could, for I knew they must be slaves running away from their masters in New York, which State then held in slavery such as were born slaves before it passed its first act of emancipation. Well, I was sitting there again the next day when a tall, fine looking colored man came along and said, "Little girl, have you seen two colored women, one of them with a baby, go by here within a day or two?" "Yes, sir," said I, "and they went up that road to Canada." Again I contended, and he took off his hat and made a low bow and said, "thank you!" O, how glad he looked as he turned away, thinking—as I guessed—that his mother, wife and dear little baby, were safely on their way to a land of freedom. My home was in Vermont about forty miles from the New York State line, and the slaves near the boundary line, often escaped through Vermont, which never held slaves, to Canada, where their masters could not take them; for Canada was a British province and its laws protected everybody in their freedom if they once got there.

Now my dear children, I wrote this incident on the smooth ends of the shingles, with some scathing comments on the wickedness of New York masters, which would have made their hair stand up had they read them. And this is my first remembered composition. Thirty years later, neighbor who had bought of my father, the shingles for his house roof, took them off to re-shingle, and there, bright as at first, was this "Story of the Runaway Slaves," with my name and age—"Clarina I. Howard, aged 7 years"—written at the end. The story covered half a dozen shingles and was in two parts. "Was that your name, grandma, when you were a little girl?" "Yes, my dear, that was my name."

"And how came it to be Nichols?" "Well, I married when I had grown to be a woman. And when women marry they are called by their husband's name. Now go to bed little ones and don't ask any more questions to-night. In the morning tell me if you dreamed about the little girl—grandmother writing on the shingles."

Potter Valley, Dec. 25th, 1874.

EXTRAVAGANCE.—The first lesson in economy is to learn to "do without." The second is to use what one has without waste. These two lessons are very hard to be learned by a people which has always been accustomed to have whatever it wanted, and to treat costly things as if they were common, for fear it should not be supposed we are familiar with them. One thing has much contributed to this—the absence of anything like class styles of expenditure. Abroad, a man will not allow his wife and daughters certain modes of dress, unless he can have other things in keeping. A camel's hair shawl and diamonds require a carriage and servants in proportion. The habits of life which fit a particular income are well known. No one goes beyond them without censure. In America there is no such rule. People live in hotels where waste is the order of the day, and where children are educated in want of care, and the habit of unlimited ordering.

CALIFORNIA CHILDREN.—Bayard Taylor pays this just tribute to the robustness of California children: "Nowhere can more rosy specimens of health and beauty be found. Strong-limbed, red-blooded, graceful, and as full of happy, animal life as young fawns; they bid fair to develop into admirable types of manhood and womanhood." This is all true. Our children are simply immense. They are on the top of a great heap of all the children. Even our hoodlums are ahead of anything of their kind anywhere. As for the young fawns, go along Kearny street any evening, and you'll see 'em. How could it be otherwise in our genial climate? Even oldish people grow and expand here, if we may believe a brilliant Los Angeles journalist, who said some time ago that men often increase a couple of inches in height after a brief residence in that wonderful region.

TRUE HOSPITALITY.—She is not the best hostess, who is ever going to and fro with hurried action, and flurried manner, and heated countenance, as if to say: "See how hospitable I can be," but rather the one who takes your coming with quiet dignity and noiseless painstaking; who never obtrudes attention, yet is very attentive all the while; who makes you, in one word—the most expressive word in the English tongue—to be at home. There is no richer, deeper, larger hospitality than that.

TRUTH is always consistent with itself, and needs nothing to help it out, it is always near at hand, and sits upon our lips, and is ready to drop out before we are aware; whereas a lie is troublesome, sets a man's invention upon the rack and needs a great many more to make it good.

To make a penny go a great way, draw it out into 2,700 feet of wire, as was lately done in Scotland.

Spiritual Evolution.

The consciousness of ignorance, which is painful, is the first step of knowledge. The man or woman, of whatever age, satisfied with attainments already made, ceases to make progress, and loses ground. A noble discontent with one's self is an essential element of growth. When coupled with this there is a ceaseless effort to improve to the utmost opportunities offered, progress is inevitable.

The foremost champion of the age in science, boldly throws down the gauntlet of materialism, and says "There is no God." "Canst thou, by searching, find out God?" Yet he admits there is a power he cannot explain which Faraday, fully his intellectual peer, hesitates not to call Divine. Tyndall frankly admits there is in the human soul wants not satisfied with what meets all the demands of the understanding. Faith is as much a faculty of the soul as reason. "Render therefore unto Caesar the things that are Caesar's, and unto God the things that are God's." Let reason have its own, and faith its own. The cultivation of one set of faculties to the exclusion of others produces an inordinate growth of the one and atrophy or dwarfing of the rest. The man who will take no testimony save that of his sense, will soon be incapable of seeing anything with the eye of faith. But every man and every woman who has a soul large enough to furnish a battle-ground for these elements, must go through this conflict, must study and think for themselves, weighing evidence, sounding depths, balancing arguments, giving to reason the things that are reason's, and to faith the things that are faith's. Though in every age there have been infidels and skeptics, the brightest names upon the roll of literature, of art, of science, are of men who embraced with humility the teachings of the sacred scriptures and accepted the record therein given by God of Himself.—*Phrenological Journal*.

HOW TO MAKE HARD TIMES.—We give a recipe for keeping the times hard: Let everybody talk depressingly. When any one fails in business, put it in all the papers. Let business men keep up perpetual complaint. Let us have occasional editorials inciting bread riots, and political speeches on the wrongs of the laboring classes. Let everybody prophesy a hard winter, an awful winter. Let us talk down instead of up. Let us take no account of the fact that flour is cheap, and the harvests are large, and God is good. We shall in this way be able to take another fagot from the poor man's hearth and knock another pane of glass out of his window, and hinder the manufacturer from employing him. All together now—ministers, editors, capitalists and laborers—let us give a long, deep groan, and keep it going till next spring, and the times will be as hard as we could reasonably expect.—*Christian at Work*.

WHAT A WOMAN CAN DO.—Mrs. Phebe Benedict, of Antioch, Cal., has solved the question, "What can Woman Do?" Some two years since she took out papers as sole trader, gained the consent of her husband to allow her complete management of the farm and transact all the business of the place, and at a time when the farm was mortgaged for several hundred dollars, and farming implements out of repair. Now, by economy, close attention to business and shrewd management, she has paid off the mortgage and interest, purchased a new cultivator, plows and other implements, treated herself to a sewing machine, repaired the buildings, and will shortly loan money; and Mrs. Benedict is, besides this, a leading advocate of suffrage for women.

A HATEFUL bachelor thus impeaches women: "I impeach her in the name of the great whale of the ocean, whose bones are torn asunder to enable her to keep straight. I impeach her in the name of the peacock, whose strut without his permission she has stealthily and without honor assumed. I impeach her in the name of the horse, whose tail she has perverted from its use to the making of wavy tresses to decorate the back of the head and neck. I impeach her in the name of the kangaroo, whose beautiful figure she, in taking upon her the Grecian bend, has brought into ill-favor and disrepute."

WHIPPING WOMEN.—A few hundred years ago any one had a right to whip a woman, unless she was married, then, being her husband's property, he had the sole right of chastisement. The proverbs of that day show the utmost contempt in which the wife was held, being full of contempt, insolence and absolute scorn. Times have changed.

VALUE OF KINDNESS.—It seems strange that corporations have so little faith in a certain old-fashioned contrivance for securing fidelity in their employees, called kindness. There is no patent for it. It makes no noise and was never counterfeited. But after millions of trials, through thousands of years, it has stood the test, and has never been improved upon.

COTTON AND PAPER SHEETS.—A malicious person says that cotton sheets and newspaper sheets are alike in the respect that a great many people lie in them.

THE FITTIST.—A medical gentleman who has cured a very bad case of "fits" considers it an illustration of the Darwinian doctrine of "the survival of the fittest."

Don't Stay Long.

"Don't stay long, husband," said a young wife, tenderly in my presence, one evening, as her husband was preparing to go out. The words themselves were significant, but the look of melting fondness with which they were accompanied spoke volumes. It told all the vast depths of a woman's love—of her grief, when the light of his smile, the source of all her joy, beamed not brightly upon her.

"Don't stay long, husband"—and I fancied I saw the loving, gentle wife, sitting alone, anxiously counting the moments of her husband's absence, and every few moments running to the door to see if he was in sight, and, finding that he was not, I thought I could hear her exclaiming in disappointed tones, "Not yet!"

"Don't stay long, husband"—and I again thought I could see the young wife, rocking nervously in the great arm-chair and weeping as though her heart would break, as her thoughtless "lord and master" prolonged his stay to a wearisome length of time.

"Don't stay long, husband"—and the young wife's look seemed to say—for here in your own sweet home is a loving heart whose music is hushed when you are absent; here is a soft breast to lay your head upon, and here are pure lips, unsoiled by sin, that will pay you with kisses for coming back soon.

Oh, you that have wives to say "Don't stay long," when you go forth, think of them kindly when you are mingling in the busy hive of life, and try, just a little to make their homes and hearts happy, for they are gems too seldom replaced. You cannot find amid the pleasures of the world the quiet, joy that a home, blessed with such a woman's presence will afford.

Husbands, would you bring sunshine and joy into your homes? Then spend your leisure hours with your families, and employ the time in pleasant words, and kind actions and you will realize in all richness what is so beautifully described by the poet:

Domestic happiness, then only bliss
Of Paradise that has survived the Fall.

A Brave Woman.

The following story is told of Mrs. John Wilson, of No. 145 Bleecker St., N. Y.

Her husband to whom she is devotedly attached and who loved her so ardently as to be consumed by a chronic jealousy of her, returned home one night, and, producing a revolver, told her he had made up his mind to shoot her. Hastily realizing the fact that there was no chance for escape the brave little woman closed her eyes and awaited her death. "I was certain," says she, "I was going to be killed, and oh, how I dreaded the shot." It came but she felt no pain. A second and a third followed until five shots had been fired. She did not know but that the first had killed her and the other four were perforating her inanimate corpse. Everything being quiet after a little, she opened her eyes to find herself still living, and her stupid husband with a bullet in each hand, and another in his stomach, while two others had lodged in the wall. The calm resignation of the woman had averted the danger from herself and turned the hostile weapon upon her would be murderer. He was conveyed to a hospital, and will probably recover, to respect for life the silent courage which saved him from a murder most foul and most unnatural.

NATURAL RELIGION.—Come quietly away with me, and we will walk up and down the narrow path, by the sweet-briar hedge and as we listen to the low song of the blackbird, the fresh air will cool our aching brows, and we shall find comfort. In these things fresh air and the birds' song, and the fragrance of the lovely flowers, God has given a blessing; like sleep, they are His medicines—"balm of sweet minds." We will walk to and fro under the shade of those elms, and we will be calm; bitter recollections shall be made sweet by the thought of His mercies; and, in the midst of the sorrows we have in our hearts, His comforts shall refresh our souls, and our minds shall be stored with many thoughts, sweet, like the perfume of these flowers.

WOMEN'S TRAINING SCHOOL.—A movement has been started in this city, under the auspices of Rev. Mr. Gibson and his congregation, looking to the establishment here of a training school for women, which it is hoped may result in aiding and educating large numbers of poor women, who are desirous of supporting themselves, but whose unskilled labor in any special department of industry renders their employment at present hopeless. This is a movement in the right direction and one which we trust will be eminently successful.

A NOSE SHOW.—They have been having a nose show in Austria. Eighty persons competed for the prize offered for the most extraordinary nasal prominence in form, size and color. The jury decided that only three out of the whole could be admitted to compete for the prize, which was finally adjudged to a competitor from Vienna, possessor of what is stated to be a "gigantic nose, of a deep violet-blue."

A RICH FIRM.—It is said that the present market value of the mining stocks owned by Flood & O'Brien is over \$100,000,000. The stocks held by them doubled in value during the month of December. They are large owners in the newly discovered Washoe bonanza.

A Novel Cure for Quarreling.

An old gentleman living in the Western part of the State, had two sons who were always quarreling about their play or whatever they were doing. All threats to punish were of no avail, and at last the old gentlemen hit upon this novel method: One day while they were engaged in one of their busiest quarrels, he quietly cut three birch limbs. The two boys seeing him, suddenly ceased quarreling, and began to look frightened at the prospective chastisement. The old man stepped up and said, "John, you and Jim have quarreled long enough, now each take one of these limbs, and whip each other well, or I'll whip you both," the same time, giving each of them a limb, keeping a good one for himself. The boys looked at each other and smiled. "Well begin, or I will," said the father. They each struck a slight tap and then hesitated. "Go on," said the fathers, and they began again, each stroke harder than the former. The old man laughed at his strategy. The boys finally took both hands and went at it true rap-jacket style, until suddenly they both stopped and burst out crying. It was hard to decide which was the most completely whipped, or how he was whipped whether by his brother or his father's strategy. It is needless to add, that those boys never quarreled again in their father's presence.

Who Are Rich?

The man with good, firm health is rich.
So is the man with a clear conscience.
So is the parent of vigorous children.
So is the editor of a good paper with a big subscription list.
So is the clergyman whose coat the children pluck as he passes them by in their play.
So is the wife who has the whole of the heart of a good husband.
So is the child who goes to sleep with a kiss on its lips, and for whose waking a blessing awaits.
So is the maiden whose horizon is not bounded by the coming man, but who has a purpose in life, whether she meets him or not.
So is the young man who, laying his hand on his heart, can say, "I have treated every woman I ever met. I should wish my sister treated by other men."

A GOOD MOTHER.—Sometimes one hears of a good wife and mother, that "she's a regular home body." The phrase is simple, but what a world of ennobling qualities it indicates, and what a universe of frivolity it excludes! The matronly home body is indeed "Heaven's best gift to man." Dashing ladies, whose mission it is to set the fashions, won't you look in upon your gentle sister as she sits in her well ordered nursery, making her children happy with her presence? Note how she adjusts their little difficulties, and admonishes, encourages, instructs, or amuses them as may be. Do you think any nurse maid could produce such harmony in their little circle? Is she not an enchantress? Verily, yes, and her charm is "love stronger than death" for those sweet faces, where you may see her smiles and frowns (though she has seldom occasion to frown) reflected in glee and sorrow, like sunlight and cloud shadow in a quiet pool. What she is, she will teach her daughters to be; and blessed are the sons who have such a mother.

STREET DRESSES, at the present time are made to clear the ground, so that the untidy and extravagant habit of gathering up the dust of the pavement and mind of the crossings, with the velvet, silks and French Cashmeres can now be avoided without offense of the mode. Skirts are about three and a half yards in breadth; formed of a front gore, one or two sides gores, and a full width behind, with all the fullness drawn back by strings or stout elastic bands, set underneath. The trimming no longer differs in front and back, but is alike all around. The pardesses is either the somewhat inevitable polonaise modified somewhat from the original design, which found form in the Marguerite; or the basque and tablier, finished with a sash looped so as to conceal the gathers of the apron.

NO TIME FOR FRIVOLITY.—"I am busy ploughing and cannot entertain company now," is the substance of a note recently written by a Maconin county, Ill., girl to a St. Louis exquisite who had met her at a fashionable party in the latter city and wished to visit her at her home. The maiden is a graduate of an Illinois seminary and her father gave her an eighty acre farm on condition that she should help work it herself, which she does.

EMPLOYMENT OF FEMALES.—The census shows that 873,332 women in this country are employed as agricultural laborers, (nearly all of whom are colored, of course); 22,681 are farmers, 867,354 are domestic servants, 84,047 are school teachers, 64,398 are cotton mill operatives, 90,490 are milliners and dressmakers, 97,207 are tailoresses, and 27,723 woolen mill operatives.

JENNY LIND'S daughter is said to possess a most superior voice and taste for music. She is receiving a most careful musical education. Mapleson, the well known London *empresario*, offers to give her four years' instruction, and \$2,000 per year in money, provided she will contract her services to him for six years as an opera singer.

YOUNG FOLKS' COLUMN.

Frogs at School.

Twenty froggies went to school,
Down beside the rushy pool,
Twenty little coats of green;
Twenty vests all white and clean.
"We must be in time" said they;
"First we study, then we play;
That is how we keep the rule,
When froggies go to school."

Master Bullfrog, grave and stern,
Called the classes in their turn;
Taught them how to nobly strive,
Likewise how to leap and dive;
From his seat upon a log,
Showed them how say "ker-chog!"
Also how to dodge a blow
From the sticks which bad boys throw.

Twenty froggies grew up fast;
Bullfrogs they became at last;
Not one dance among the lot—
Not one lesson they forgot;
Polished in a high degree,
As each froggie ought to be;
Now they sit on other logs,
Teaching other little frogs.

Don't Give Up, but Try.

A gentleman travelling in the northern part of Ireland heard the voices of children and stopped to listen.

Finding the sound came from a small building used as a school-house, he drew near; as the door was open, he went in, and listened to the words the boys were spelling.

One little fellow stood apart, looking very sad. "Why does that boy stand there?" asked the gentleman.

"Oh, he is good for nothing!" replied the teacher, "There's nothing in him. He is the most stupid boy in school."

The gentleman was surprised at this answer. He saw that the teacher was so stern and rough that the younger and more timid were nearly crushed. After a few words to them, placing his hands on the noble brow of the little fellow who stood apart, he said:

"One of these days you may be a fine scholar; don't give up; try, my boy, try."

The boy's soul was aroused. His sleeping mind awoke. A new purpose was formed. From that hour he became anxious to excel. And he did become a fine scholar, and the author of a well-known commentary on the Bible; a great and good man beloved and honored. It was Dr. Adam Clarke.

The secret of his success is well known: "Don't give up; but try, my boy try."

The Sabbath School.

It was one of the most pleasant and hopeful reflections that the Sabbath School, as an institution, is so highly regarded in California.

So far as our observation goes there is scarcely a mind to be found in all this great state, so debased, so narrow and bigoted as not to look with favor on the Sabbath School.

Setting the question of religious influence entirely aside, no one will fail to see the utility of a place like the Sabbath School, to draw all the children together, of a Sabbath afternoon, with their neat apparel and smiling faces, to join in pleasant songs and agreeable exercises, and to learn their duty to God and to each other.

Here they are put upon their best behavior, and with proper instruction acquire a species of knowledge essential to success in life.

We are glad that all our people value the Sabbath School, and would be still more pleased to see a larger number of the professedly religious portion take an active personal interest in its success.

How to Treat Bad Boys.

Many years ago in a country town in Massachusetts a teacher saw a boy come into his school, whom he knew to be one of the worst boys in town. He determined, if he could, to make a good boy of him, and he behaved well that day. The next morning the Prudential Committee (as he was called) came in and said: "Mr. Towne, I hear that bad fellow, Bill Marcy, has come to your school. Turn him out at once. He will spoil the rest of the boys." "No, sir," replied the teacher, "I will leave the school if you say so, but I cannot expel a boy so long as he behaves well." So he kept him and encouraged him, confided in him, till Bill Marcy became one of the best boys in school. And afterwards, whenever William L. Marcy came from Washington, he took pains to go and see his old teacher, Salem Towne, and thank him for having been the means of saving him and making the man he was.

FUTURE MEN AND WOMEN.—The boys and girls are what the men and women will be by and by. The good sisters make the good wives, and the good brothers make the good husbands of the after time. If you want to know with a fair certainty what each will be in the unalterable relation and solemn responsibilities of married life, you can see it all mirrored in the life that as child and youth they led. The affectionate kindness, considerate attention and unselfish devotion which made brother and sister dear to each other, and made the home calm and beautiful, will not have exhausted themselves when the old home is left, but on nearer and dearer ones will pour out their treasures of grace and goodness.

GOOD HEALTH.

Wet and Dry Bathing.

If any one in these days will exercise in the open air, so that each day he will perspire moderately, and if he will wear thin under garments, or none at all, and sleep in a cold room, the functions of the skin will suffer little or no impediment, if water is withheld for months. Indeed, bathing is not the only way in which its healthful action can be maintained by those living under the conditions at present existing. Dry friction over the whole surface of the body, once a day, or once in two days, is often of more service than the application of water.

The reply of the centenarian to the inquiry to what habit of life he attributed his good health and extreme longevity, that he believed it due to "rubbing himself all over with a cob every night," is significant of an important truth. If invalids and persons of low vitality would use dry friction and Dr. Franklin's "air bath," every day for a considerable period, we are confident they would often be greatly benefited. Cleanliness is next to godliness, no doubt, and a proper and judicious use of water is to be commended; but human beings are not amphibious. Nature indicates that the functions of the skin should be kept in order mainly by muscular exercise, by exciting natural perspiration by labor; and, delicious as is the bath and healthful, under proper regulation, it is no substitute for that exercise of the body, without which all the functions become abnormal.

POISONED CONFECTIONERY.—A gloom was recently thrown over the town of Placefield, Conn., by the death of a twelve-year old daughter of Mr. Edward Markland. The immediate cause of her demise was the eating of candy in which there was arsenic. Some three weeks ago the girl in company with two girls named respectively Miss Bunnell and Miss Hemmingway, attended an evening party, at which, by way of entertainment, was offered confectionery purchased in the town of Forrestville, a portion of which was originally manufactured in the city of New Haven. They partook heartily of the same and soon after were taken violently sick. The sufferers were attended by Dr. Woodward of this place, who, on examining the symptoms, pronounced the poison to be arsenic, and that it was contained in the candy. Under his treatment the two last named girls were partially restored to health, though they are not yet considered out of danger. But with Miss Markland the case was different. Medicine seemed to have no healing effect upon her. Previous to death she literally suffered many deaths. Her tongue became frightfully swollen, and some time before she breathed her last inflammation seized upon her eyes and rendered her totally blind. During it all the little creature was perfectly conscious, and patiently endured the most excruciating pains till death brought relief.

A SINGULAR CASE.—The Chicago physicians are puzzled by Michael Finnegan, a patient in one of their hospitals. During more than two months he has lain rigidly in bed, seldom moving a muscle, and yet shows no other signs of illness than this strange impassiveness. He is fed with liquids poured down his throat; his limbs are moved with difficulty by the attendants, as though the muscles had become fixed, and he never speaks, although his eyes move, and at times he seems to be sensible. The physicians believe it to be a genuine case of catalepsy, or of hysteria and simulated catalepsy. There have been instances of cure of both these disorders by fright, and an experiment was made on Finnegan. The physicians talked in his presence of cutting his jugular vein, so as to kill him and end his suffering, and after a great show of preparation scratched his neck with the point of a knife, but he exhibited no fright.

CURE FOR CORNS.—The safest, the most accessible, and the most efficient cure of a corn on the toe is to double a piece of thick, soft buckskin, cut a hole in it large enough to receive the corn, and bind it around the toe. If in addition to this the foot is soaked in warm water for five or more minutes every night and morning, and a few drops of sweet oil or other oily substance, are patiently rubbed in on the end after the soaking the corn will almost infallibly become loose enough in a few days to be easily picked out with a fingernail. This saves the necessity of pining the corn which operation has sometimes been followed with painful and dangerous symptoms. If the corn becomes inconvenient again, repeat the process at once.—*Hall's Journal of Health.*

HEALTHFULNESS OF APPLES.—The frequent use of apples, either before or after meals, has a most healthful effect upon digestion. Better eat less meat and more fruit. An eminent French physician thinks that the decrease of dyspepsia and bilious affections in Paris is owing to the increased consumption of apples, which fruit he maintains is an admirable prophylactic and tonic, as well as a very nourishing and easily digested article of food. The Parisians are said to devour one hundred millions of apples every winter—that is, they did before the war. Whether this estimate is true or not, the French are extravagantly fond of apples and other fruit.

DOMESTIC ECONOMY.

Importance of the Inorganic Constituents of Food.

The bodies of animals in a state of health, though chiefly composed of organic substances, contain, nevertheless, always certain inorganic salts, either in combination or solution. The soft parts of the bodies are here intended, and not the bones, which are, of course, largely composed of inorganic matter. Mr. J. Forster has recently described some interesting experiments on the effect of gradually reducing the quantity of these salts in the system, by feeding animals with food of an entirely nutritious description, but completely deprived of such salts. The food employed consisted of albumen, starch and fat, with entirely pure water. Animals thus treated suffer gradual derangements of the functions of various important organs, which derangements go on until the power of assimilation of the food taken is so far reduced as to prevent the proper repair of the ordinary waste of the system. The natural consequence of this would be to produce decline or death. But death usually ensues before it could be brought about by a cause so slowly acting, since the deficiency of salts, by arresting some of the processes necessary to life, precipitates the destruction of the organism before it could perish by exhaustion. Exhaustion is the effect produced upon the muscles by withholding salts, but in the nerves there appear, first, increased excitability, and then paralysis of the nerve centers. The quantity of salts necessary in the food is less than has heretofore been supposed, but further experiments are necessary to determine its exact amount.

COCKS' COMBS AS FOOD.—The combs of Spanish and Leghorn fowls are sold in some parts of Europe as choice delicacies for the palates of those who sigh for fresh appetizers. Under the name of "Cretes de Coq," a supply of these morsels has been recently imported from Paris. The combs are of large size, both single and rose, and are put up in white vinegar, in long tubular glass bottles, holding about a pint, sealed with black wax. When we say that these small bottles cost at wholesale in Paris more than a dollar in gold each, the reflection is forced that many a large combed rooster may in future be sacrificed to Mammon, as many were offered up to Esculapins. There are enough large combs in the yards of some of our breeders to make a fortune if they could be utilized. We hope, however, the combs on the Mediterranean class will be reduced in size, as many large ones amount to positive deformity.—*Poultry World.*

MISS SEDGWICK has asserted that the more intelligent a woman becomes, other things being equal, the more judiciously she will manage her domestic concerns. And we add that the more knowledge a woman possesses of the great principles of morals, philosophy and human happiness, the more importance she will attach to her station, and to the name of a good housekeeper. It is only those who have been superficially educated, or instructed only in showy accomplishments, who despise the ordinary duties of life as beneath their notice. Such persons have not sufficient clearness of reason to see that domestic economy includes everything which is calculated to make people love home and be happy there.—*German Town Telegraph.*

BEEF TEA.—Take one pound of juicy, lean beef—say a piece from the shoulder or the round—and mince it. Put it, with its juice, into an earthen vessel containing a pint of tepid water, and let the whole stand for one hour. Then slowly heat it to the boiling point, and let it boil for three minutes. Strain the liquid through a colander, and stir in a little salt. If preferred, a little pepper or allspice may be added.

Mutton tea may be prepared in the same way. It makes an agreeable change when the patient has become tired of beef tea.

BEEF CLUBS.—Beef clubs are in order in some parts of the west. A dozen or 20 farmers combine and each one agrees to furnish a fat steer at a time allotted him. This is divided among the members of the club. Accurate accounts are kept, and at the end of the year a settlement made. The quality of the beef is regulated by the proportion of tallow to the meat, a fine being levied if it falls below a certain per cent.

SPONGE GINGERBREAD.—One cup of sour milk, one cup of molasses, one half cup of butter, two eggs, one and one-half teaspoonsful of salaratus, one tablespoonful of ginger, flour to make it thick as pound cake. Put the butter, molasses and ginger together and make them quite warm, then add the milk, flour and salaratus and bake as soon as possible.

DRIPPING CAKE.—Mix well together two pounds of flour, a pint of warm milk, and a tablespoonful of yeast; let it rise about half an hour; then add half a pound of broken sugar, a quarter of a pound of currants, and a pound of good fresh beef dripping; boil the whole well for nearly a quarter of an hour, and bake in a moderately hot oven.



PUBLISHED BY
DEWEY & CO.
A. T. DEWEY, W. B. EWER, G. H. STRONG, J. L. BOONE
PRINCIPAL EDITOR.....W. B. EWER, A. M.

Office, No. 224 Sanson street, Southeast corner of California street, where friends and patrons are invited to our Scientific Press, Patent Agency, Engraving and Printing establishment.

SUBSCRIPTIONS payable in advance—For one year, \$4; six months, \$2.25; three months, \$1.25. Remittances by registered letters or P. O. orders at our risk.

ADVERTISING RATES.—1 week, 1 month, 3 months, 1 year
Per line.....25 .80 \$2.00 \$5.00
One-half inch.....\$1.00 \$3.00 \$7.50 24.00
One inch.....2.00 5.00 14.00 40.00

Large advertisements at favorable rates. Special or reading notices, legal advertisements, notices appearing in extraordinary type or in particular parts of the paper, inserted at special rates.

No Quack Advertisements inserted in these columns.

We Will Prepay All Postage
On this paper after the 1st of January, 1875, as the law demands. This is equivalent to reducing the subscription price 20 cents per annum. Besides, it will save subscribers the annoyance of paying petty postage bills every quarter.

SAN FRANCISCO:
Saturday, January 9, 1875.

TABLE OF CONTENTS.

GENERAL EDITORIALS.—Silk Culture; To Our Correspondents; The Kirtland Pear, 17. Los Angeles Raisin; Farewell! The Castor Bean; The Centennial Exhibition Building, Philadelphia, 1876, 24-25. Patents and Inventions, 28.

ILLUSTRATIONS.—The Kirtland Pear, 17. International Exhibition; The Centennial Art Gallery, 25.

CORRESPONDENCE.—An Agent's Suggestion; From Kalamazoo, Michigan; Haywards Ahead on Blue Gum; From Los Nistos; Capay Valley; Information Wanted, 18.

POULTRY YARD.—Practical Poultry Growing; Feed for Chickens, 18.

THE VINEYARD.—Dr. Blake Reviewed; First Use of Postal Cards, 18.

SHEEP AND WOOL.—The Sheep Interest in America; Cracking Cowskulls on Merinos, 19.

THE HORSE.—Burs on Horses' Mains and Tails, 19.

USEFUL INFORMATION.—Mystery of the Lakes; Blasting Accidents—A Hint Worth Remembering; Combustion of Coal; Spontaneous Fire in Hay; Detection of Adulterated Wine; Singular fact, 19.

PATRONS OF HUSBANDRY.—Progress of the Patrons in California; New Granges; Meetings; Etc., 20-21.

HOME CIRCLE.—Tired Mothers (Poetry); "Where There's a Will There's a Way;" Extravagance; California Children; True Hospitality; Spiritual Evolution; How to Make Hard Times; What a Woman Can Do; Whipping Women; Value of Kindness; Don't Stay Long; A Brave Woman; Natural Religion; Women's Training School; A Noss show; A Rich Firm, 22. A Novel Curs for Quarreling; Who Are Rich? A Good Mother; No time for Frivolity; Employment of Females, 23.

YOUNG FOLKS' COLUMN.—Frogs at School (Poetry); Don't Give Up, but Try; The Sabbath School; How to Treat Bad Boys; Future Men and Women, 23.

GOOD HEALTH.—Wet and Dry Bathing; Poisoned Confectioners; A Singular Case; Cure for Corns; Healthfulness of Apples, 23.

DOMESTIC ECONOMY.—Importance of the Inorganic Constituents of Food; Cocks' Combs as Food; Beef Tea; Beef Clubs; Sponges Gingerbread; Dripping Cake, 23.

AGRICULTURAL NOTES from various counties in California, 23.

MISCELLANEOUS.—To Keep Ice from Windows; The New Homestead Plan; Use for Snakes; European Languages, 19. Cotton; Remarkable Tree Growth in San Bernardino; A New Shell; Singular Cause of Boiler Explosion; Cutting and Pickling Pork; Improvement in Map Making; Chinese Fish Hatching; The Magic Lantern in Disease, 26. Agricultural Items; Industrial Items; Friedlander's Semi-Annual Grain Circular, 28. Geological Puzzle; Glass for Veneering, Paneling, Etc.; Professional Statistics, 30. Economic Use of Fuels; The Mysteries of the Human Throat; Imitation Patents; Improving River Navigation, 31.

ON FILE.—"The Grange and Public Schools," I. C. C.; "The Grange Socially," J. T.; "From Sacramento Grange," G. R.; "Note from Livermore Grange," L. S.; "Landscape Gardening," F. P. H.; "Silk Culture in 1874," (continued) F. G.; "Profits of Fine Sheep," W. A. S.; "Rise a Pineapple," W.; Notes from Yountville and Berryessa valley by our own correspondent.

BARLEY AND WHEAT AT THE NORTH.—Mr. Lundford, of Adin, reports to the *Modoc Independent*, that at least one-third of the crop of barley and wheat in Big valley was lost in consequence of the late storms. He states, also, that a large amount of grain is spoiling in the granaries since it was threshed.

TRAINING HORSES.—Rockwell's lectures on the "Education of the Horse," at Oakland, were well attended, and much valuable information imparted to the audience.

FARMERS who do not wish to "pay for all," should acquaint themselves with the advantages offered by the "Farmers' Mutual Fire Insurance Co.," No. 6 Leide-dorff street, S. F.

GUAVA.—The first guava grown in this State have been brought into Santa Barbara by Colonel Dunmore, who raised them on his place at Montecito.

Farewell!

It seems somewhat odd to go first and say farewell afterwards, but circumstances may make it more appropriate thus than otherwise. I had expected to make an announcement in the *Granger* last week to the effect that it had been consolidated with the *Rural Press*, but when the day of issue arrived, the bargain had not been concluded, and of course I had nothing to say in public. On New Year's day, however, while our hearts were big with new born hopes and high purposes, Brothers Dewey, Ewer, and I embraced, and henceforth the *Granger* and *Rural* occupy the relative position of the lion and the lamb, the lion being on the outside, as usual.

The reasons for thus uniting our projects, and retiring the *Granger* from the field are: First, we believed that the interests of the Order could be better subserved by one paper, upon which the sympathy and patronage of the Order could be concentrated. Second, like all similar projects, the publication of the *Granger* cost a great deal of money, and having such a competitor as the *Rural*, it was likely to cost a great deal more before any dividends could be declared. Third, Messrs. Dewey & Co. promise to make as much better paper as their increased facilities will enable them, so that those who receive the *Rural* in lieu of the *Granger* will have no reason to complain, and if they do not keep their promise, our old friends will please notify us at once.

Solomon, I think it was he, said "of making many books there is no end; but much study is a weariness to the flesh." If he were alive now what would he say of the newspapers? No loyal member of the Order feels like throwing off on a paper devoted to his interests, but the expense that is involved in taking a dozen or two is quite burdensome; and in these hard times should be avoided—of course, without sacrificing anything of fealty to the cause. Need we say that no loyal Patron of the Pacific coast can now ignore the claims of the *Rural Press*?

Finally, brothers and sisters, do not let the impression be entertained that the *Granger* has failed in any sense, or that by its merger into the *Rural* any discredit attaches to the Order. It may be that it will be announced as a failure by our enemies, and a little glorification indulged in in consequence of our expense. I distinctly authorize any one to give such report the lie, and send the author of it to me for satisfaction. Nor will you allow yourselves to entertain a fear that Bro. Henning has abated one jot or tittle of his ardor in the Grange cause. He don't surrender worth a cent, and will never be wounded in the back. Thanking you all for your generous support, and for the many evidences of your hearty sympathy (all undeserved) during the past year and a half, the "little *Granger*" bids you a long farewell. Yours, fraternally and everlastingly,
GEO. W. HENNING.

[The editors and publishers of the *Rural* will do their best to meet the anticipations raised by Bro. Henning in retiring his lively paper. His old patrons are referred to the business notice on the last page of this issue, which explains fully our business transactions regarding their interests.]

To Correspondents.

O. H., of Walla Walla, asks the following question:

How much water will discharge through a pipe 4 1/2 inch diameter (on bone), 1 1/4 miles long, with 70 feet fall nearly a gradual descent, fed by a reservoir five feet deep (or five feet measurement at head)?

It will discharge 160 gallons per minute.

Our Danville correspondent does not handle the subject of dress reform as deftly as we could have wished. The article is not up to our standard.

The communication of C. A. is somewhat lengthy, and contains the elements of a discussion which we apprehend will do no good. We therefore decline to publish it.

The recent rains were much heavier in the southern portion of the State than here. This rain, it will be recollected, fell here on Christmas eve. With a light rain in February or March, the farmers of Los Angeles and San Diego will be sure of a crop. At present everything looks encouraging there.

The Santa Cruz powder mill, it is announced, will suspend operations for a short time, in consequence of which over 300 persons will be thrown out of employment—for a short time only, we presume.

The Castor Bean.

The importance of diversifying our system of farming was duly recognized and advocated by us, long before the occurrence of the late reverses in wheat; and if these reverses have not occasioned any somersaulting on our part, as with some of our contemporaries, it is because we firmly believe that the change from one dominant crop to an established system of diversified farming is already progressing as rapidly as a prudent regard for the health of California agriculture would desire.

Among the crops now receiving increased attention from the farmers of this State is the castor bean. A good deal of interest has been manifested by some of our subscribers in regard to this product, and inquiries for practical information have been sent to the *Press*. Answers to the following questions have been requested in this connection: When should the beans be planted? What quantity of seed per acre? What is the cost of seed? What is the market price of the product? Which is the most profitable to raise, the large or small variety? And is there a castor oil manufacturing company in San Francisco?

Time of Planting.

All members of the bean family are extremely sensitive to frost, and in localities where frosts occur, planting should be delayed until this danger is passed. About the first of April is the best time for planting. In districts where there are no frosts the castor bean becomes an annual, and in such localities may be planted as soon as the ground is in proper condition. In the very early stages of its growth it is subject to injury from certain insects and worms, but it soon outgrows such danger.

About five pounds of seed are required per acre, the cost of which will vary from six to eight cents per pound. The average crop may be estimated at from 1,200 to 1,500 pounds per acre. In regard to the market price of the crop, we would state that the only available returns are for 1872, when the crop sold at \$70 per ton. The demand for this product is apparently steady; and in answer to the question as to whether there is a castor oil manufactory in San Francisco, we would state that there is such an establishment, known as the Pacific Oil and Lead Works; and also that it announces its willingness to contract for castor beans at rates that with proper cultivation on suitable land, will make them one of the most profitable crops grown.

We have been asked whether the large or small varieties are most profitable. We are assured that the small beans are the most profitable.

Having answered the above questions to the best of our ability, we will give some general hints for the benefit of those who wish to engage in growing this crop, beginning with

Preparing the Ground.

Commence plowing as early as the ground will break up light and mellow. Plow deep and harrow thoroughly. Five feet apart is the proper distance. Five or six beans should be dropped in a hill, and when the plants are about six inches high, go through with the hoe, and clean everything in and around the hills, leaving only one stalk. Keep them clean for the first four to six weeks; after this they will take care of themselves.

When the spikes are fit to pick, which can be known by the color changing from green to red, and by their commencing to pop, commence picking at once. They have to be picked several times as they ripen. The first bunches will ripen about the middle of July. They should be picked as soon as they are ripe, or great waste will ensue by this popping of the beans. This period of the castor bean crop furnishes

Work for the Young Folks.

A large share of the cost of production is incurred in the picking season, and this work can be performed by young boys and girls as well as by any parties. There are other desirable contingencies growing out of this crop which are worth considering; one of the most important of which is the condition in which the cultivation of the castor bean leaves the land. Those who are experienced in the matter declare that land improves under this crop. This is probably owing to the depth at which the roots reach; and, as incidental to this, we would state that objections are raised to castor bean culture on the grounds of being difficult to eradicate; but those who have tried it declare that they have found no difficulty in eradicating the roots with a harrow crop.

We will give at an early date further information for the benefit of those interested in this product.

WHEAT FOR PIGS.—Mr. I. T. Day, of Marin county, Oregon, furnishes the *Record* his experience last season in fattening pigs on wheat, by which means he made a good pay for his stock hogs, and realized \$1 per bushel for his wheat, though working at a disadvantage.

WILMINGTON.—Affairs are lively in Wilmington, Los Angeles county. Some 200 men are now employed there by the railroad company in building lighters and a new wharf, and in the machine and car shops.

The Centennial Exhibition Building, Philadelphia, 1876.

We will suppose that all the readers of the *Rural Press* have already heard of the manner in which it is proposed to celebrate the hundredth anniversary of the existence of the United States as an independent nation, and of the magnificent building in which all the nations of the earth are invited to exhibit their products. Of this building we give a splendid illustration, as also of the Art Gallery, which it is expected will contain some of the most distinguished works of painting and sculpture to be found in Europe or America. The whole structure will be supported on piers of massive masonry, while the superstructure will consist of wrought iron columns with roof trusses of the same material. The columns will be of rolled channel bars with plates riveted to the flanges, while the roof trusses are straight rafters with struts and tie bars. The building in shape, a parallelogram, extends east and west 1,688 feet, and north and south 464 feet. Should necessity arise, these dimensions will be increased.

The Principal Buildings

Are the Main Building, the Art Gallery, the Machinery Hall, the Agricultural and the Horticultural Halls. In the aggregate they cover a floor space of about 46 acres.

The larger portion of the structure is one story in height, and shows the main cornice upon the outside at 45 feet above the ground, the interior height being 70 feet. At the centre of the longer sides are projections 416 feet in length, and in the centre of the shorter sides or ends of the building are projections 216 feet in length. In these projections, in the centre of the four sides, are located the main entrances, which are provided with arcades upon the ground floor, and central facades extending to the height of 90 feet.

Upon the corners of the building there are four towers 75 feet in height, and between the towers and the central projections or entrances, there is a lower roof introduced showing a cornice 24 feet above the ground.

In order to obtain a central feature for the building as a whole, the roof over the central part for 184 feet square, has been raised above the surrounding portion, and four towers, 48 feet square, rising to 120 feet in height, have been introduced at the corners of the elevated roof.

The areas covered are as follows:

Ground Floor.....	872,320 sq. feet	20.02 acres.
Upper Floors in projections.....	37,314 " "	.85 "
" " in towers.....	26,344 " "	.60 "
Total.....	936,008 " "	21.47 "

Ground Plan.

The general arrangement of the ground plan shows a central avenue or nave 120 feet in width, and extending 1,832 feet in length. This is the longest avenue of that width ever introduced into an Exhibition Building. On either side of this nave there is an avenue 100 feet by 1,832 feet in length. Between the nave and side avenues are aisles 48 feet wide, and on the outer sides of the building smaller aisles 24 feet in width.

In order to break the great length of the roof lines, three cross avenues or transepts have been introduced of the same widths and in the same relative positions to each other as the nave and avenues running lengthwise, viz: a central transept 120 feet in width by 416 feet in length, with one on either side of 100 feet by 416 feet, and aisles between of 48 feet.

The intersections of these avenues and transepts in the central portion of the building result in dividing the ground floor into nine open spaces free from supporting columns, and covering in the aggregate an area of 416 feet square. Four of these spaces are 100 feet square, four 100 feet by 120 feet, and the central space or pavilion 120 feet square. The intersections of the 48 foot aisles produce four interior courts 48 feet square, one at each corner of the central space.

The main promenades through the nave and central transept are each 30 feet in width, and those through the center of the side avenues and transepts 15 feet each. All other walks are 10 feet wide, and lead at either end to exit doors.

The Art Gallery.

Is located on a line parallel with and northward of the Main Exhibition Building.

It is on the most commanding portion of great Lansdowne Plateau and looks southward over the city.

It is elevated on a terrace six feet above the general level of the plateau—the plateau itself being an eminence 116 feet above the surface of the Schuylkill River.

The entire structure is in the modern renaissance. The materials are Granite, Glass and Iron. No Wood is used in the construction, and the building is thoroughly fireproof. The structure is 365 feet in length, 210 feet in width, and 59 feet in height over a spacious basement 12 feet in height, surrounded by a dome.

The dome rises from the center of the structure to the height of 150 feet from the ground. It is of Glass and Iron and of a unique design; it terminates in a colossal bell—from which the figure of Columbia rises with protecting hands.

A figure of colossal size stands at each corner

of the base of the dome. These figures typify the four quarters of the globe.

The main entrance opens on a hall 82 feet long, 60 feet wide, and 53 feet high, decorated in the modern renaissance style; on the farther side of this hall, three doorways, each 16 feet wide and 25 feet high, open into the center hall; this hall is 83 feet square, the ceiling

14 feet wide, which opens on its north line into a series of private rooms, thirteen in number, designed for studios and smaller exhibition rooms.

All the galleries and central hall are lighted from above; the pavilions and studios are lighted from the sides. The pavilions and central hall are designed especially for exhibitions of sculpture. There will be

Dept. VII. Apparatus and methods for the increase and diffusion of knowledge.

Dept. VIII. Engineering, public works, architecture.

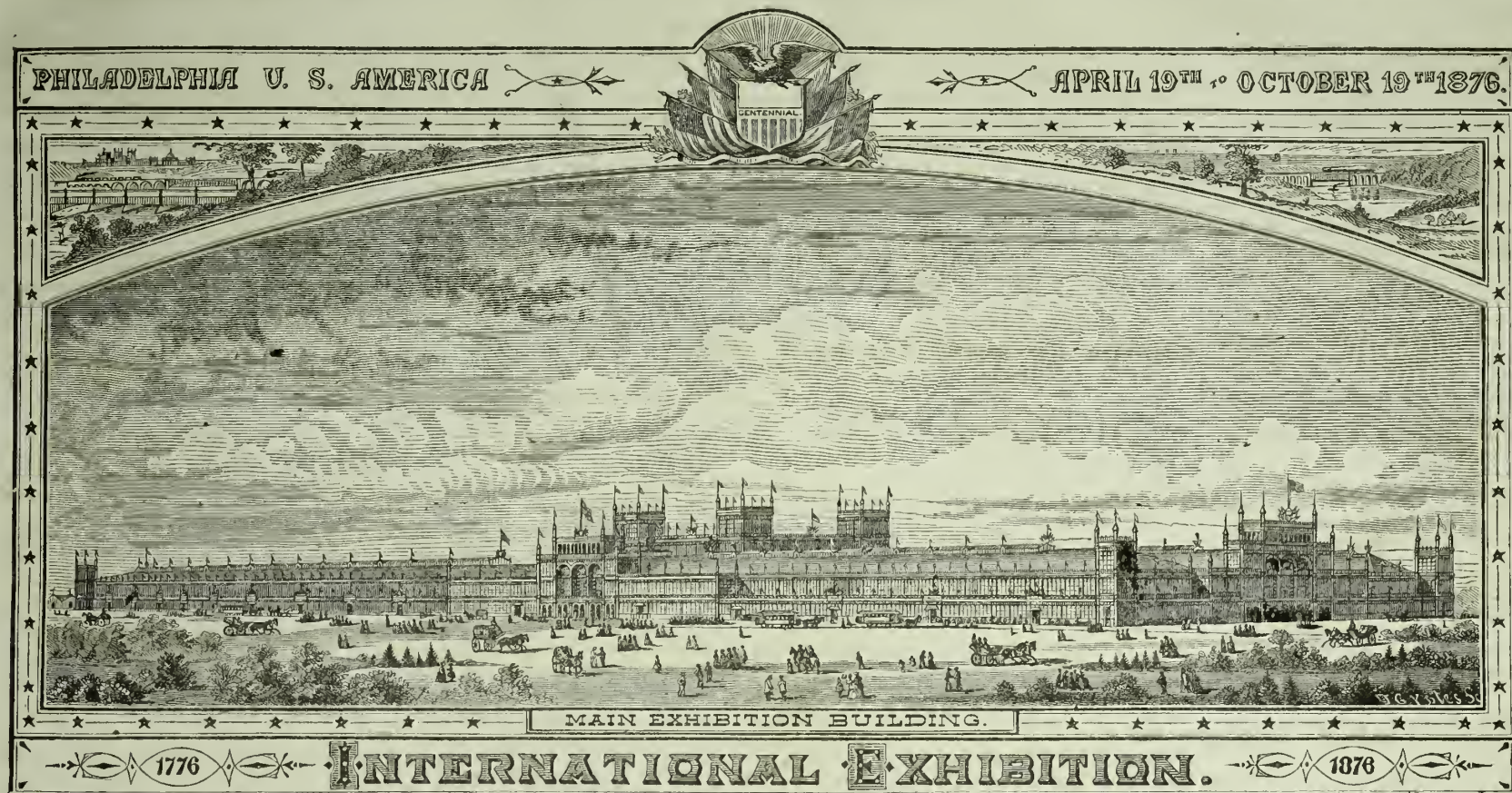
Dept. IX. Plastic and graphic arts.

Dept. X. Objects illustrating efforts for the improvement of the physical, intellectual and moral condition of man,

In this connection we may mention that the *San Francisco Journal of Commerce* has applied for a space 50x50, wherein to represent raw materials and staples produced on the Pacific Coast.

How the Work Progresses.

Philadelphia papers represent the work as progressing favorably. The contractor is trying to



of the dome rising over it 80 feet in height.

From its east and west sides extend the galleries, each 98 feet long, 48 feet wide, and 35 feet in height. These galleries admit of temporary divisions for the more advantageous display of paint-

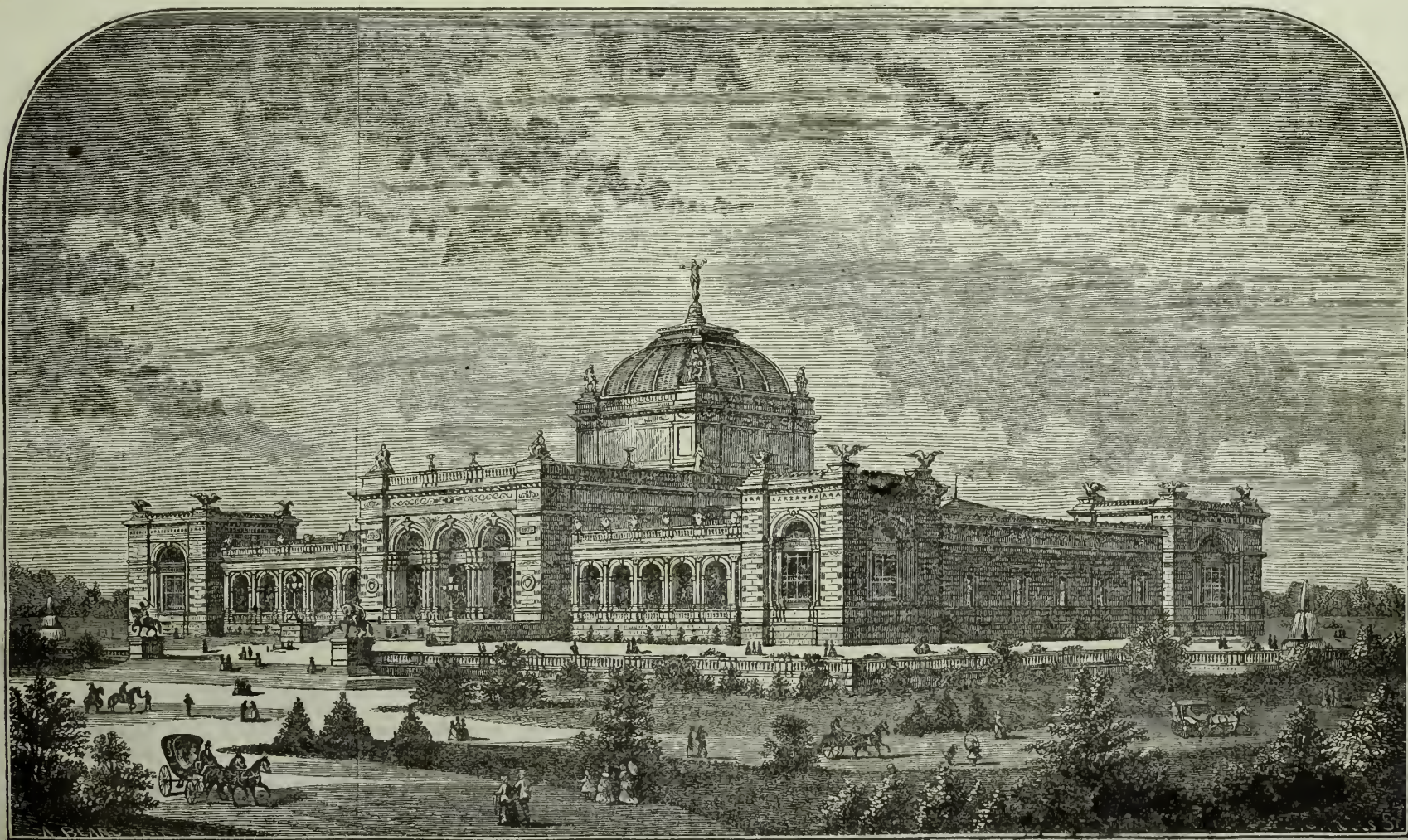
Ten Departments

Of classification, divided into one hundred and nine groups, subdivided into one thousand and ninety-nine classes. The departments of classification will be as follows:

The Pacific Coast Commissioners

With their alternates are as follows:
California—J Dunbar Creigh, San Francisco; alternate, Benj. P Kooser, Santa Cruz. Oregon—J W True, Baker City; alternate, A J Dittur,

place the Memorial Hall under temporary cover to allow work inside during the winter. The interior walls have reached a height of about fifty feet, or above the span of the arches which form the entrance to the magnificent vestibule. On



THE CENTENNIAL ART GALLERY.

ings. The center hall and galleries form one grand hall 287 feet long and 85 feet wide, capable of holding eight thousand persons, nearly twice the dimensions of the largest hall in the country. From the two galleries, doorways open into two smaller galleries, 28 feet wide and 89 feet long. These open north and south into private apartments which connect with the pavilion rooms, forming two side galleries 210 feet long. Along the whole length of the north side of the main galleries and central hall extends a corridor

Dept. I. Materials in their unwrought condition—mineral, vegetable and animal.

Dept. II. Materials and manufactures the result of extractive or combining processes.

Dept. III. Textile and felted fabrics—apparel, costumes and ornaments for the person.

Dept. IV. Furniture and manufactures of general use in construction and in dwellings.

Dept. V. Tools, implements, machines and processes.

Dept. VI. Motors and transportation,

Portland. Nevada—W W McCoy, Eureka; alternate, Jas W Haines, Genoa. Utah—John H Wickiier, Salt Lake City; alternate, Oscar G Sawyer, Salt Lake City. Idaho—Thos Donaldson, Boise City; alternate, Christopher W Moore, Boise City. Montana—W H Claggott, Deer Lodge City; alternate, Patrick A Largey, Virginia City. Washington Territory—Elwood Evans, Olympia; alternate, Alexander S Abernethy, Cowlitz county. Arizona—Hon. Richard C McCormick, D. C.; alternate, John Watson, Tucson.

the exterior walls all the rough granite up to the water-table is in place, and on the southwest corner the masons have laid a considerable quantity of the fine Richmond granite which is to form the superstructure. Enough is now laid at the Memorial Hall to indicate its beauty and demonstrate the imposing character of the edifice. The granite at the southwest corner is about six feet above the water-table. It is backed with brick, laid in cement, the entire wall being five feet thick and is to be continued to the full height.

Cotton.

There is scarcely any agricultural product in which the readers of the Press have manifested more interest during the present season than in cotton. Being aware of this we shall continue to lay before them such information on the subject as we are able to obtain. It is essential that the people of California familiarize themselves with the manufacturing and commercial aspects of this important product, as well as to learn how to grow it. We therefore give the following digest of the Departmental report of the cotton crop of 1874. It will be well for the California cotton grower to note, in reading this report, where allusion is made to the condition of the crop in June, with the statement that "vigilance, stimulated by fears of utter failure kept the fields entirely clear of grass," etc., for though the crop here is not liable to suffer from floods, it will probably pass through other trials or succumb to them, if its owners are not alike watchful and vigilant. Following is the digest of the report referred to:

"The cotton product of 1874, as estimated by the correspondents of the Department of Agriculture, somewhat exceeds three and a half millions of bales. The yield per acre is reported less than in 1873 in most of the States. The weather for ripening and gathering the top crop has been very favorable. The reports are nearly unanimous in stating that the proportion of lint to seed is large. The percentages of last year's aggregate of bales in the principal cotton States are as follows: Virginia, 89; North Carolina, 89; South Carolina, 92; Georgia, 93; Florida, 100; Alabama, 95; Mississippi, 90; Louisiana, 85; Texas, 90; Arkansas, 60; Tennessee, 57. This result corresponds very closely with the indications of the monthly statements of condition made by the Department.

The October statement, which has been misinterpreted, or misrepresented, as indicating 3,000,000 bales or less, makes the average for 10 cotton States, 71 per cent. of normal condition, or an impairment of 29 per cent. from all causes, against 79 per cent. last year. So far as condition in October indicates final results in bales, the proportion would be: As 79 is to 71 so is the aggregate yield of last to that of the present season. This would make, within a fraction, 3,748,000 bales on the same acreage; but on an area 10 per cent. less it would mean 3,373,000, or with the outlying area, fully 3,400,000. The fine season for ripening and gathering during the last two months accounts for the slight increase in the final returns, and renders the accuracy of judgment in the two returns almost absolutely identical.

As to the necessity that all the monthly reports of condition throughout the growing season should be identical in their percentages, it is an absurdity and an impossibility, which no man of sense would suggest, as there must ever be a constant warfare between the vital and destroying forces of nature, the current results of which it is the business of our correspondents to report from month to month.

The statement of condition, (100 representing normal condition of healthy development, above which extraordinary vigor and growth may sometimes be written, while all impairment of vitality or reduction of healthful growth are represented by lower figures), during the growing season of 1874, has been reported as follows, the figures being in each case an average, for the State named, of the county percentage of normal condition, by the side of which are placed similar State averages for 1873:

STATES.	June.	July.	August.	Sept.	October.
1873 1874	1873 1874	1873 1874	1873 1874	1873 1874	1873 1874
N. C.....	85 89	91 102	95 95	95 87	88 83
S. C.....	88 81	82 88	87 97	86 86	80 80
Georgia..	94 80	94 91	95 94	90 77	82 80
Florida..	102 90	99 96	103 102	85 77	76 81
Alabama..	93 82	85 92	91 90	85 81	78 75
Miss.....	92 78	83 87	88 89	82 74	75 74
La.....	94 70	80 73	86 83	80 62	65 62
Texas.....	86 90	78 102	83 105	92 65	80 70
Arkansas..	92 90	106 94	93 87	93 47	83 55
Tenn.....	90 85	96 97	96 83	92 52	90 56

The condition of the crop in June was reported lower than in the same period of 1873 in every State except Texas and North Carolina. Louisiana, which suffered most by floods, made the lowest average; Mississippi next; Georgia, South Carolina and Alabama coming next in order. Saturating rains, causing overflows of every spring-branch as well as larger streams, left cotton more unthrifty, irregular, and stunted in appearance than for years at the early stage of its growth. The writer of this visited most of the cotton States, and can testify to the reliability of the first report.

After the rains came exceptionally fine weather; stands were perfected by replanting; the plants took root more firmly in the warm soil; growth became rapid; and vigilance stimulated by recent fears of utter failure kept the field unusually clear of grass, so the July returns everywhere indicated improvement, as those of the previous year had shown decline of condition. A comparison of the two years

in July shows higher condition in 1874 in North Carolina, South Carolina, Alabama, Mississippi and Texas. In August a record of continued improvement was made in all the States except North Carolina, Alabama, Arkansas and Tennessee, deterioration being noticeable in the latter two. At this point in the comparison with 1873, a decline commences in the condition of cotton of the present season, though it is mainly seen in Arkansas and Tennessee, very slightly in Georgia, Florida, Alabama, and Louisiana, while in South Carolina and Texas a higher condition is marked than in August last year.

In September this slight difference is evidenced, especially by the low returns of Tennessee, Arkansas, Louisiana and Texas, resulting from drought and other causes which would have made still greater reduction of product but for the fact that losses from the caterpillar were far less than in 1873. In October there appears a slight improvement in Georgia, Florida, Texas, Arkansas and Tennessee; small reduction in the Carolinas and Alabama; and in Mississippi and Louisiana no change is indicated. The general average for this month is 71."

Remarkable Tree Growth in San Bernardino.

We give the following from the Santa Barbara Guardian of December 12, 1874: "We are not going to exaggerate. We went into Dr. Barton's champion nursery with a pole in one hand and a tape in the other. We made the measurements; can vouch for their correctness; and invite the skeptical to go and satisfy themselves, that we simply give the bare facts. In this wonderful nursery are Sicily lemon trees which have grown from bud since last spring, nine feet seven inches high each and three inches in circumference. And yet those trees have been 'clipped' off over two feet of 'top' each. In the orange nursery we measured several trees over five feet high and three inches in circumference, each. And, in general vigor and luxuriance of limb, we know those trees are unequalled for their age. Fig trees budded on other fig stocks last March show an astonishing, nay, incredible growth. Scores of them are each over six feet high, with splendid yield of figs, and good figs too. The two year old fig trees average about nine feet in height, and ten and a half inches in circumference. Lanted from six inch cuttings. Slips planted last March have borne excellent figs—we tasted them—and average probably about five feet six inches in height and three inches in circumference. These from eight inch cuttings. Several are over seven feet in height. Pear trees are of this year's growth, many of them seven feet high, each. Almond buds grafted on yearling peaches have since last spring produced trees many of which are each over six inches in circumference, with from seven to ten strong limbs in proportion. Hundreds of almond trees from seed last spring are each over eight feet high and about three and a half inches in circumference. There are 2,500 of these splendid trees in all. We were shown a peach budded on another peach last spring, which has grown from the ground, to the incredible height of eight feet and two inches, and strong and vigorous, too. Of the two years' walnut trees many of them are each over 13 feet high and about ten inches in circumference. This year alone, hundreds of them average 11 feet six inches in height. There are about 4,000 in the nursery. We have not space to notice the remaining varieties in detail, but we can honestly say with Baillie Sampson, that their general growth is prodigious. Altogether, we doubt if there is a nursery in Southern California can make such a splendid showing, by rule and tape.

A NEW SHELL.—Various experiments have been made by a War Committee on explosives, with a view of ascertaining the practical effect of Professor Abel's proposed plan for the bursting of common shells filled with water, by means of a detonator, consisting of dry compressed gun-cotton enveloping a small cap of fulminate of mercury. Some months ago the practicability of exploding 16-lb common shells in this manner was satisfactorily established, and the result of such an arrangement was the bursting of a shell into 300 fragments, whereas only about thirty pieces were produced by the explosion of an ordinary bursting charge of gunpowder. The effect of such an explosion among troops in the field could not be otherwise than disastrous in the extreme. Lately, however, experiments have been made with 9-inch common shells, which far exceed in effect that of any conducted with the field service common shell. On this occasion the bursting element employed was wet gun-cotton in lieu of water. The result was extraordinary, the shells bursting literally into thousands of pieces.

SINGULAR CAUSE OF BOILER EXPLOSION.—The tube of a boiler recently exploded in a foundry at Liege, Belgium, was caused, as shown on examination by the corrosive action of ferrous sulphate and sulphuric acid, derived from the sulphur in the coal fuel. This discovery strangely points to the necessity of carefully and frequently cleaning the forward portion of the boiler tubes, and other parts which do not come in direct contact with the flame.

PEAR trees are blossoming at Santa Cruz.

Cutting and Pickling Pork.

L. W. Babbitt, of Council Bluffs, Iowa, in a communication to the Western Rural, says the first essential in pickling pork is a good, sweet barrel—not a molasses barrel, but a new barrel made from well-seasoned, white oak staves, without any sap in them. If there is any sap in the staves the brine will leak through, and the pork will be spoiled with rust. Good salt is another requisite for pickling pork.

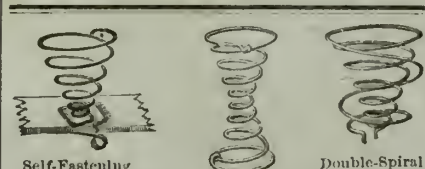
When the hogs are killed and the flesh perfectly cold, lay the hog on his side and cut straight down the center of the back until the knife strikes the bone. Then turn him on his back and cut through the ribs close to the backbone, so as to meet the cut made from the other side. Cut off the head and your pig will be in halves; cut the leaf lard from the ribs; cut off the shoulder and ham; cut out all the lean meat from the side; then cut the side in strips about three inches wide, cutting across from back to belly. When you have your sides all cut in this way, take your barrel and cover the bottom three-fourths of an inch deep with salt; then take your pieces of pork and set them on edge, the skin next to the barrel, making the circle smaller and smaller, until you have a perfect layer, and as close together as you can well press each piece with the hand; then fill all open spaces with salt. Then, with a square-ended stick, or maul, pound the pork down until it is smooth on the top. Then cover with salt about five-eighths of an inch deep. Then proceed with another layer as before, and so on till the barrel is filled to within three or four inches of the top. Then make a brine as strong as can be made with salt and boiling soft water; skin the brine and let it cool. When cold pour it on the meat until the barrel is filled to within two inches of the top. Put a board, cut to fit the inside of the barrel, on top of the pork, and lay upon it a rock weighing about forty pounds. Keep the barrel in a cool place, if you have one; if not, keep it almost anywhere out of the sun, and you will have good pickled pork as long as you keep it completely covered with brine. I have never lost any pork put up in this way, and I have kept it in cellars, on the first floor and in the garret.

IMPROVEMENT IN MAP MAKING.—Lloyd, the famous map man, who made all the maps for General Grant and the Union army, has invented a way of getting a relief plate from steel so as to print a map 40x50 inches in size on a fast working power press. This will so much cheapen the price of map-making as to enable him to furnish an unmounted map of the above size on bank note paper, plain and unvarnished for 10 cents, or 25 cents colored and varnished.

CHINESE FISH HATCHING.—A curious mode of fish-hatching is said to be followed in China. Having collected the necessary spawn from the water's edge, the fishermen place a certain quantity in an empty hen's egg, which is sealed up with wax and put under the sitting hen. After some days they break the egg, and empty the fry into water well warmed by the sun, and here nurse them until they are sufficiently strong to be turned into a lake or river.

THE MAGIC LANTERN IN DISEASE.—Dr. Balmanno, a London surgeon, has successfully applied the magic lantern to the study of diseases of the skin. A transparent photograph of the skin is taken and then placed in a magic lantern. A strong hydro-oxygen light casts the picture enlarged on a white sheet, and in this way the smallest details are brought out with astonishing minuteness.

THE Brooklyn tower of the East river Brooklyn bridge was completed on the 16th of December. Its total height is 268 feet—48 feet higher than Bunker Hill monument. It presents a very imposing appearance; we hope it will not prove a tower of folly.



We manufacture all sizes of BED and FURNITURE SPRINGS, from No. 7 to the smallest Pillow Spring; also, the Double Spiral Spring, which is the most durable Bed Spring in use. It is adapted to upholstered or skeleton beds. We have the sole right in this State to make the celebrated Oehrmann Self-Fastening Bed Spring. Any man can make his own spring bed with them. They are particularly adapted to Farmers' and Miners' use. Send for Circulars and Price List to

WARNER & SILSBY,

147-28-cow-hp-3m 147 New Montgomery St., S. F.

COMPTON & BINFORD, REAL ESTATE BROKERS

Employment and Intelligence Office, Horse and buggy free to see property. Offices at Compton, and at corner of Court and Spring streets, Los Angeles, Cal. 25-8-17

CHINESE EMPLOYMENT COMPANY.

We are prepared to furnish at short notice, Domestic Servants, Hotel Cooks, Landlady-mes, Waiters, Common Laborers, Farm Hands, Gardeners, Mechanics, Factory Hands, Wood Choppers, etc. Special attention given to furnishing Domestic Servants.

PICKER & CO., 627 Sacramento St., S. F.

bet. Montgomery and Kearny Sts., S. F.

Brittan, Holbrook & Co., Importers of Stoves and Metals, Trunkers' Goods, Tools and Machines, 111 and 113 California, 7 and 9 Davis streets, San Francisco, and 178 J street, Sacramento

Miscellaneous Notices.

POISON! POISON!

WAKELEE'S PATENT Granulated Squirrel Exterminator.

A NEW AND MOST DESTRUCTIVE POISON FOR THE WORST PEST OF CALIFORNIA.

For years the farmers of the Pacific Coast have been expending money in experimenting to find a safe, cheap and efficient way of ridding their grain fields of their worst enemy, the squirrel, which destroy Millions of Dollars' worth of grain every year; and unless a strong and combined effort is made to kill them off, they will become more numerous every year.

Wakelee's Granulated Squirrel Exterminator

Is just the thing the farmers of California have been looking for. It is SURE DEATH. One or two grains of it will kill a Squirrel so quick that if it is five feet from his hole it dies before it gets there. This Poison is put up dry and in granular form, and easily handled; in one pound tins at \$1 per pound. It goes a great way, as 10 to 15 grains of it are sufficient to place at each hole. Also successfully used for killing Gophers and Kats. It has been thoroughly tested in different parts of the country, and gave universal satisfaction. It is kept and sold by druggists and dealers generally through the country. The following are some of my testimonials, viz:

SANTA CLARA, April 20th, 1874.
H. P. WAKELEE, Esq.:—Your Squirrel Exterminator was used according to your directions, and my Quail Farm with excellent success, and in my estimation is just the thing the farmers want to kill their Squirrels.

J. R. ARGUELLO.

SAN LEANDRO, Cal., April 3d, 1874.
H. P. WAKELEE, Esq.:—Dear Sir: I have given your Squirrel Exterminator a fair trial and find it to be an economical and very destructive preparation, and I can safely recommend it to our farmers. Yours,

J. M. ESTUDILLO.

DOUGHERTY STATION, Alameda Co., Cal.
MR. H. P. WAKELEE, San Francisco: I have used your Squirrel Poison and found it to be just what you claim for it. It is sure death. Yours, C. M. DOUGHERTY.

H. P. WAKELEE, Druggist,

Cor. Montgomery and Bush streets, S. F.

ARE YOU GOING

TO PAINT?

THEN USE THE BEST.

THE AVERILL CHEMICAL PAINT

WILL LAST THREE TIMES AS LONG as the best lead and oil, without CHALKING; is of any desired color. It is prepared for immediate application, requiring no Oil, Thinner or Drier, and does not spoil by standing any length of time. It is equally as good for inside as outside work; over old work as well as new; in fact, where any paint can be used the AVERILL CHEMICAL PAINT will be found superior to any other. Any one can apply it who can use a brush, which truly makes it the FARMER'S FRIEND.

IT IS JUST THE PAINT FOR THE AGE.

IT IS SOLD BY THE GALLON ONLY.

One gallon covers 20 square yards 2 coats.

For further information send for sample card and price list.

MANUFACTURED BY

The California Chemical Paint Company.

TYLER BEACH, Pres't. M. C. JEWELL, Sec'y.

Office—Corner Fourth and Townsend streets, San Francisco. 16-7-cow-hp-8m

PACIFIC OIL AND LEAD WORKS,

SAN FRANCISCO.

Manufacturers of

Linseed and Castor Oils,

OIL CAKES AND MEAL.

Highest price paid for Flax Seed and Castor Beans delivered at our works.

Office, 3 and 5 Front street.

Works, King street, bet. Second and Third. 16-5-cow

SANTA BARBARA COLLEGE,

SANTA BARBARA, CAL.

A Boarding School for Boys and Girls, offering all the advantages of a thorough modern education. French, German, Spanish, Latin, Greek, Drawing, the Natural Sciences, Gymnastics and Dancing taught without extra charge. Vocal and Instrumental Music receive particular attention. Pupils furnish only a pair of heavy blankets. Next term opens January 6th, 1875.

Write for Catalogue to ELWOOD COOPER, President Board of Directors.

YOSEMITE HOUSE,

STOCKTON, CAL.

JAMES COLE, Proprietor.

This House contains all modern improvements; Saloons, Bath Rooms and Telegraph.

The only first class Hotel in Stockton.

BELLA UNION HOTEL,

JOHN F. MILLER, Prop.,

SAN BERNARDINO, CAL.

This fine hotel is situated in one of the best parts of the city, and the proprietor will at all times use his best endeavors to promote the comfort of his guests.

ALEX. BUSWELL.

BOOK BINDER, PAPER RULER

AND BLANK BOOK MANUFACTURER.

418 & 420 Clay Street, S. F.

Blank Books Ruled, Printed and Bound to Order.

Jan-1-y

Orders Wanted at the National Em-

ployment office, 608 Market street, room 9; office crowded daily with good men and women, seeking employment; particular attention paid to country orders. 25-8-2m

A. BRANDT & CO., Prop's

DEWEY & CO.

American & Foreign Patent Agents,

OFFICE, 224 SANSOME STREET, S. F.

PATENTS obtained promptly; Caveats filed expeditiously; Patent reissues taken out; Assignments made and recorded in legal form; Copies of Patents and Assignments procured; Examinations of Patents made here and at Washington; Examinations made of Assignments recorded in Washington; Examinations ordered and reported by Telegraph; Rejected cases taken up and Patents obtained; Interferences Prosecuted; Opinions rendered regarding the validity of Patents and Assignments; every legitimate branch of Patent Agency Business promptly and thoroughly conducted.

Our intimate knowledge of the various inventions of this coast, and long practice in patent business, enable us to abundantly satisfy our patrons; and our success and business are constantly increasing.

The shrewdest and most experienced Inventors are found among our most steadfast friends and patrons, who fully appreciate our advantages in bringing valuable inventions to the notice of the public through the columns of our widely circulated, first-class journals—thereby facilitating their introduction, sale and popularity.

Foreign Patents.

In addition to American Patents, we secure with the assistance of co-operative agents, claims in all foreign countries which grant Patents; including Great Britain, France, Belgium, Prussia, Austria, Victoria, Peru, Russia, Spain, British India, Saxony, British Columbia, Canada, Norway, Sweden, Mexico, Victoria, Brazil, Bavaria, Holland, Denmark, Italy, Portugal, Cuba, Roman States, Wurtemberg, New Zealand, New South Wales, Queensland, Tasmania, Brazil, New Grenada, Chile, Argentine Republic, AND EVERY COUNTRY IN THE WORLD where Patents are obtainable.

No models are required in European countries, but the drawings and specifications should be prepared with thoroughness, by able persons who are familiar with the requirements and changes of foreign patent laws—agents who are reliable and permanently established.

Our schedule prices for obtaining foreign patents, in all cases, will always be as low, and in some instances lower, than those of any other responsible agency.

We can and do get foreign patents for inventors in the Pacific States from two to six months (according to the location of the country) sooner than any other agents.

Home Counsel.

Our long experience in obtaining patents for inventors on this Coast has familiarized us with the character of most of the inventions already patented; hence we are frequently able to save our patrons the cost of a fruitless application by pointing them to the same thing already covered by a patent. We are always free to advise applicants of any knowledge we have of previous applications which will interfere with their obtaining a patent.

We invite the acquaintance of all parties connected with inventions and patent right business, believing that the mutual conference of legitimate business and professional men is mutual gain. Parties in doubt in regard to their rights as assignees of patents, or purchasers of patented articles, can often receive advice of importance to them from a short call at our office.

Remittances of money, made by individual inventors to the Government, sometimes miscarry, and it has repeatedly happened that applicants have not only lost their money but their inventions also, from this cause and consequent delay. We hold ourselves responsible for all fees entrusted to our agency.

The principal portion of the patent business of this coast has been done, and is still being done, through our agency. We are familiar with, and have full records, of all former cases, and can more directly judge of the value and patentability of inventions discovered here than any other agents.

Situated so remote from the seat of government, delays are even more dangerous to the inventors of the Pacific Coast than to applicants in the Eastern States. Valuable patents may be lost by the extra time consumed in transmitting specifications from Eastern agencies back to this coast for the signature of the inventor.

Confidential.

We take great pains to preserve secrecy in all confidential matters, and applicants for patents can rest assured that their communications and business transactions will be held strictly confidential by us. Circulars free.

Engravings.

We have superior artists in our own office, and all facilities for producing fine and satisfactory illustrations of inventions and machinery, for newspaper, book, circular and other printed illustrations, and are always ready to assist patrons in bringing their valuable discoveries into practical and profitable use.

DEWEY & CO.,

United States and Foreign Patent Agents, publishers Mining and Scientific Press and the Pacific Rural Press, 224 Sansome St., S. F.

Banking and Insurance.

The Pacific Mutual Life Insurance Company of California.

No. 41 Second street, - - - Sacramento

ACCUMULATED FUND, NEARLY

\$1,250,000.00.

\$100,000 Approved Securities, deposited with the California State Department as security for Policy holders everywhere.

LELAND STANFORD.....President
J. H. CARROLL.....Vice-President
JOS. CRACKBON.....Secretary

All Policies issued by this Company, and the proceeds thereof, are exempt from execution by the laws of California. THE ONLY STATE IN THE UNION that provides for this exemption.

Policies issued by this Company are non-forfeitable, and all profits are divided among the insured. Policies may be made payable in Gold or Currency, as the applicant may elect, to pay his premium.

Executive Committee:

LELAND STANFORD, J. H. CARROLL,
ROBT. HAMILTON, SAMUEL LAVENSON,
JAS. CAROLAN.

SCHREIBER & HOWELL,

11-29-cow-bp-3m General Agents, Sacramento.

Anglo-Californian Bank.

LIMITED.

Successors to J. Seligman & Co.

London Office.....No. 3 Angel Court
San Francisco Office.....No. 412 California street.

Authorized Capital Stock, \$6,000,000.

Subscribed, \$3,000,000. Paid in, \$1,500,000.
Remainder subject to call.

DIRECTORS IN LONDON—Hon. Hugh McCulloch, Renben D. Sassoon, William F. Schofield, Isaac Seligman, Julius Singleton.

MANAGERS:

F. F. LOW and IGNATZ STEINHART,
SAN FRANCISCO.

The Bank is now prepared to open accounts, receive deposits, make collections, buy and sell exchange, and issue Letters of Credit available throughout the world, and to loan money on proper securities. 2v2t-cowbp

Commission Merchants.

JOHN H. HEGLER,

Nos. 412 and 414 Sansome Street, S. F.

GRANGERS'

DAIRY PRODUCE

—AND—

COMMISSION HOUSE,

HAS EVERY FACILITY FOR SELLING

BUTTER, CHEESE,

POULTRY, EGGS,

LARD, HAMS,

HIDES, BACON,

WOOL, PELTS,

POTATOES,

DRIED & CANNED FRUIT, HONEY, Etc.

R. K. CUMMINGS, 1858. H. H. BALSTON, 1875.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission House,

ESTABLISHED 1858.

No. 424 Battery street, southeast corner of Washington, San Francisco.

Our business being exclusively Commission, we have interests that will conflict with those of the producer. 4v23-1v

Davis & Sutton, Commission Merchants, For California Fruits; also for the sale of Butter, Eggs, Cheese, Hops, Green and Dried Fruits, etc., 75 Warren street, New York. Refer to Anthony Halsey, Cashier, Traders' National Bank, N. Y.; Ellwanger & Barry, Rochester, N. Y.; C. W. Reed, Sacramento, Cal.; A. Lusk & Co., Pacific Fruit Market, San Francisco, Cal. 3v-c-1v

CO-OPERATIVE MARBLE WORKS.

JOHN DANIEL & CO.,

Manufacturers of and Dealers in

Monuments, Headstones, Tombs,

MANTEL PIECES, ETC.,

421 Pine street, between Montgomery and Kearny, SAN FRANCISCO.
21v2-1v

Geo. W. Chapin, Real Estate Agent, 434 Montgomery St., San Francisco, buys and sells Ranches in all parts of the State. City Real Estate exchanged for Country Property. MONEY LOANED. Post Office Box 1129

CENTINELA COLONY

LOS ANGELES CO., CAL.

SIX MILES WEST OF LOS ANGELES, CAL.

The unparalleled success of the

LOMPOC COLONY,

SANTA BARBARA COUNTY,

Has induced the "Centinela Land Company of Los Angeles" to subdivide and place in market for sale and settlement, under the direction and management of the "California Immigrant Union," of San Francisco, the "Centinela and Sausal Redondo" Ranches, containing Twenty-five Thousand Acres of Beautiful Valley Land, located seven miles west of the city of Los Angeles, and extending to and fronting on the Pacific Ocean. There is now on the tract an orchard of about three hundred acres, containing Orange, Lemon, Lime, Fig, Walnut, Almond and Olive trees, and a nursery of young Orange and Lime Trees. Some of the Orange and Lime trees are in bearing. The tract will be subdivided in twenty, forty, eighty, one hundred and sixty-acre farms, and sold upon easy terms and long credits.

Auction Sale of Town Lots

—AND—

5, 10, 20 and 40 ACRE FARMS,

WILL COMMENCE ON

Monday, Jan. 18, 1875, at 12 o'clock, M.

And continue Five Days. The sale will take place on the Rancho. Parties desiring to purchase should be on the ground a few days prior to the sale, in order to examine the property. Title—United States patent.

SITUATION.

"Centinela," with the addition of the "Sausal Redondo," contains 25,000 acres. The boundary of the Rancho commences three and a half miles from the city limits of Los Angeles, and extends to the Pacific Ocean.

TOPOGRAPHY.

"Centinela" is made up of one broad, level, fertile valley, of over twenty thousand acres, and beautiful fertile rolling hills near the ocean.

SOIL.

The soil is an exceedingly fertile loam, and is, without exception, the richest and most productive in Southern California. Its vicinity to the ocean insures a crop without irrigation. Excellent wheat has been raised for the last two years upon the hills adjoining the ocean. This wheat field contains 1,000 acres, and covers the lightest soil upon the Rancho. There is no alkali or barren land.

SEMI-TROPICAL FRUITS.

There are a few bearing orange and lime trees upon the Centinela, and the fruit they produce is of the largest and finest quality. There is an orchard containing 6,000 orange trees three years old, and 1,700 almond, lime and lemon trees. The almond, lime and lemon trees will bear fruit in 1875. The orange trees will bear in five years. There are 7,000 three-year-old orange trees in the nursery near the orchard. Fig, pepper and gum trees grow without irrigation. The entire orchard can be taken care of by three men with six horses. The orchard will be kept undivided by the company, to save the expense of each shareholder having a few trees to take care of. Each share will entitle the owner to about 15 trees in the orchard and about the same number in the nursery. The almond, lime and lemon trees will yield an immediate return. In five years each orange tree will produce \$20 per annum, or \$300 per share for those now planted. There are flowers in the garden in bloom every day in the year.

SHEEP.

A flock of about 14,000 sheep will be kept undivided, to save expense to the shareholders. This will give about 30 sheep to each share. The sheep will produce in increase and wool over \$2 each, yearly, over expenses. They will be grazed upon outlying and unsold lands of the company. The "No fence" law is in force in Los Angeles County.

CLIMATE.

The climate of the "Centinela" is without exception the finest and most equable in the world. It varies but little throughout the year. The mean temperature is about 60 degrees. The mercury falls but little below 60 in winter and rises but little above 60 in summer. You sleep under one pair of blankets and with your bed-room window open every night in the year.

AGRICULTURE.

The soil of the "Centinela" is admirably adapted for all kinds of grain, vegetables and fruit.

WATER.

The Centinela creek rises upon the Rancho and runs through the northern portion of the tract. It affords an abundance of clear spring water. The source of the Centinela creek consists of several natural artesian springs, showing that artesian water can be obtained by boring.

THE TOWN.

A square mile is laid off at an eligible point on the tract, with lots 31x135; avenue 100 feet, and streets 80 feet wide. A stream of water can be brought in so as to supply every lot with crystal, cool, sweet water. One of the forty-acre tracts is set apart for a College and Farm School, and there will be a Ten-acre Park on each of the four sides of the town, and Four Blocks in the center of the town for Public Buildings, Schools, etc. A large lot will also be set apart for each Religious Denomination, and a block given for the erection of a large hall by the different Fraternal, Grange and Temperance Societies.

FARE.

Parties desiring to visit the Rancho can take the 8:10 A. M. train of the Southern Pacific Railroad to Soledad, thence by Coast Line Stage to Los Angeles; by 4 P. M. train to Bakersfield, thence by stage to Los Angeles; or by Pacific Mail Co.'s and Goodall, Nelson & Perkins' steamships direct to Los Angeles, where conveyances can be had to go to the Rancho free of charge.

RAILROADS AND WHARF.

The Company intend building a wharf to enable Steamships from San Francisco and other places to land passengers on the tract. A narrow-gauge railroad will be built from Los Angeles to the wharf, a distance of about 12 miles. The Main Street and Agricultural Park Railway will soon be built to the park, about 10 miles from the tract. This railway will be extended to the tract as soon as the settlement will justify it.

Apply to

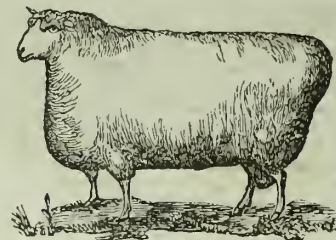
General Agent California Immigrant Union, 534 California street, between Montgomery and Kearny streets, San Francisco, to TEMPLE & WORKMAN, Bankers, or Gen. SHIELDS, Los Angeles, or O. L. ABBOTT, Corresponding Secretary State Grange Immigrant Aid Association, Santa Barbara.

P. S.—A second sale will take place on the Rancho, commencing on Monday, the 8th of March, 1875.

Further particulars will be furnished by the officers and directors of the Centinela Land Company, of Los Angeles, who are: F. P. Temple, President; F. P. Howard, Vice-President; J. S. Slauson, Los Angeles County Bank, Treasurer; J. M. Griffith, of Griffith, Lynch & Co.; Gen. J. H. Shields; O. W. Childs; D. Freeman, on the Rancho; W. H. J. Brooks, Secretary.

Live Stock Notices.

B. W. OWENS, San Francisco. | E. MOORE, Stockton, Cal



OWENS & MOORE,

COMMISSION MERCHANTS,

DEALERS IN

WOOL, HIDES, PELTS AND GRAIN.

Office—405 Front street, S. F. 14v7-3m

U. S. LIVE STOCK EXCHANGE,

S. E. Cor. 5th & Bryant Sts., SAN FRANCISCO.

Fresh Milch Cows and Cattle; Saddle, Work and Carriage Horses; Thoroughbred Durhams and Devons; Pure Blooded Berkshire Pigs; Thoroughbred Cotswold, Southdown and French and Spanish Merino Sheep, sold on commission or bought on farm for cash. Address, DAWSON & BANCROFT P. S.—Special rates to members of the Grange.

BLOODED STOCK FOR SALE.

May be seen on board the ship "Glory of the Seas." They consist of a Bull, three Cows, and six Calves, all Jersey stock, with good pedigree. Inquire of the Captain on board, or HENRY COTTRELL, Grangers' Bank, 415 California street

FOR SALE.

A pair of thoroughbred Cheate White Hogs, one year old. A. B. ROWLEY, Mayfield, Santa Clara Co., Cal.

California Farmers Mutual Fire Insurance Association.

Office, 6 Leidesdorff St., - San Francisco.

Directors:

A. WOLF, A. W. THOMPSON, I. C. STEELE,
I. G. GARDNER, J. C. MERRYFIELD, J. D. BLANCHARD,
G. P. KELLOGG, Treas.

Finance Committee:

I. G. GARDNER, J. C. MERRYFIELD, A. W. THOMPSON

Trustees:

J. M. HAMILTON, Lske Col. C. STEELE, San Mateo Co
J. C. MERRYFIELD, Solano Co. A. B. NALLEY, Sonoma Co
G. W. COLBY, - Butte Co. O. S. ABBOTT, S'ta Barb's Co
H. B. JOLLEY, - Merced Co. A. W. THOMPSON, Sonoma Co
A. WOLF, San Joaquin Co. E. STEELE, S.L. Obispo Co
J. D. BLANCHARD, Pres't. W. H. BAXTER, Sec'y.

This association is organized for the purpose of affording the farmers of this State the means of safely insuring against loss by fire, at actual cost of insurance, without being connected with city risks. s822-tf

SANBORN & BYRNES,



Mechanics' Mills, Mission Street,

bet. First and Fremont, San Francisco. Orders from the country promptly attended to. All kinds of Stair Material furnished to order. Wood and Ivory Turners. Billiard Balls and Ton Pins, Fancy Nails and Balusters. 25v8-8m-bp

GRAPE VINES FOR SALE.

Roots and Cuttings of the best foreign varieties in lots to suit, at ten to twelve dollars for the former and three to five dollars for the latter. Thirty thousand roots W. Muscat, Alexandria, &c. Orders solicited early.

H. W. CRABB,

Oakville, Napa Co., Cal.

LOOK!

ALBERT E. BURBANK, Importer and Breeder of Fancy Poultry, Pigeons, Rabbits, etc. Also Eggs for hatching from the finest of imported stock. gg and Fowls at reduced prices. send for Price List.

ALBERT E. BURBANK,
1v8-3m 43 & 44 Cal. Market S.F.

SOMETHING NEW.

Every business man should have one of those neat and durable Vulcanized Rubber Stamps, to mark their merchandise, stamp their envelopes, &c. Also, a name stamp for marking their clothing and cards with genuine indelible ink. Send your orders to

FRANK H. WING,

Room 14, 608 Market street, San Francisco.

Printing Wheels only \$6. 25v8-1m

For the very best Photographs go to BRADLEY & RULOFSON'S GALLERY, with an "Elevator." 429 Montgomery street, San Francisco. 2v7-6m

AGRICULTURAL NOTES.

ALAMEDA.

GRAIN SHIPMENTS.—Livermore *Enterprise*, Jan. 2: During the past ten days upward of 1,600 tons of grain have been shipped from this place, mostly to San Francisco. A stranger would naturally think that our large warehouses would soon be emptied of their golden treasure at this rate, but such is not the case. We stepped into Edmondson's warehouse the other day and it appears as well-filled as it did four weeks ago. Many of our farmers who did not store their grain in the warehouses at the time of threshing, are now doing so, which, of course, fills the vacancy made by the shipment. The usual activity in seeding is going on, yet many fear a dry season. We feel anxious about rain, for without it we shall be placed back where we were two years ago. Several of our largest farmers are cautious about putting in large crops for fear of a dry year.

STILL HARPING.—The Oakland papers are still talking of their orange trees in bearing. The *Transcript*, Jan. 4th says: Superb oranges, large, fully ripe and luscious, plucked from a tree four years old in a garden of a gentleman living in Oakland, were exhibited to us yesterday. They had none of the advantage of a hot house, but were raised in the open air. In external appearance compare favorably with the oranges of Los Angeles county.

BUTTE.

ALFALFA ON RED LANDS.—The Marysville *Appeal* says alfalfa will not grow on the red lands, but four crops in one season is good enough for all practical purposes. Auburn is in about the same latitude as Cincinnati, but we don't believe they do much haying in that locality in the latter part of December.

CONTRA COSTA.

FINE COTTON.—Antioch *Ledger*, Jan. 2: We have on our table a specimen of cotton grown this season on the farm of Johnson Fancher, five or six miles from town, which corroborates the fact already demonstrated, that an excellent quality of cotton may be grown in this valley. The bolls before us are well matured and the cotton of the finest texture. The land composing the Fancher farm is about the same quality of soil as that of a great majority of the valley for many miles above this place. Every one who has experimented in cotton growing has succeeded beyond expectations and we hope to see a goodly number of acres thus planted the present season.

APPREHENSIONS FROM LACK OF RAIN.—The absence of rain for several weeks past is causing some of the merchants and farmers to feel a little shaky in regard to the failure prospects. Nothing is suffering for rain at present and no one can predict with any degree of certainty what will be the result of a California winter. Thus far all is well. The early rain was abundant; the land has been sown much earlier than usual; the togs have been equal to three or four inches of rain and there has been but little drying north wind. Wheat looks well. It is the late spring rains that insure the harvest.

COLUSA.

COTTON IN COLUSA.—Colusa *Sun*, Jan. 2: A. Rutland planted about 50 acres of cotton on the east side of the river last spring. He has now finished ginning what he gathered, and hands in his balance sheet for the transaction. We will first state, however, that more than one-third of his crop was drowned out by reason of the back water from the Parks dam:

COTTON CROP, DR.

To ploughing land.....	\$ 125 00
To planting seed.....	10 00
To cultivating.....	32 00
To thinning and weeding.....	98 00
Paid passage on hands from S. F.....	42 00
To picking.....	390 32
To ginning and baling.....	125 25
Total.....	\$818 57

CONTRA CR.

By 7,500 pounds ginned cotton @ 20 c.....	\$1,500 00
Subtract total cost.....	818 57
Profit.....	\$681 43

If Mr. Rutland had two weeks more of good weather, or had it not been land affected by the overflow, his profit would have been more than double what it is. There were 15 acres of it that he had not gone over at all, and much of it had only one picking, so that the estimate of one-third destroyed is rather under than above the mark. The growing of cotton, then, in this valley, is no longer an experiment.

NATIVE ORANGES.—We wonder that people in this city and vicinity do not cultivate the orange. The fruit will grow here as thickly and yield as beautifully as at Los Angeles or Panama. One acre devoted to the culture of the orange is worth more than a whole farm for wheat growing.

FRESNO.

NEW POTATOES.—Fresno *Expositor*, Dec. 30: Antonio Days, left at this office last Thursday about 20 pounds of new potatoes. They were grown on the Easterby farm, the seed being planted last fall, after the wheat crop was harvested. The potatoes varied in size—weighing from two to eight ounces. They were of the common pink variety. For our Christmas dinner, therefore, we had new potatoes, and we can truthfully say, they were a fine as any potatoes we ever ate, being nearly and solid. New potatoes for a Christmas dinner is a rarity that few people in this world can boast of having enjoyed. It occurs to us that in this little circumstance is a suggestion which may be turned to a good advantage. Let potatoes be

planted in the fall, and supply San Francisco market with new potatoes during the winter months. There is money in it. Such a rarity in mid-winter would find a ready sale at a good price, and the crop could be raised without any interference with the usual grain crop.

KERN.

PRODUCTIVENESS OF ALFALFA.—Kern county *Courier*, Jan. 2: Facts are constantly coming to our knowledge in regard to the alfalfa farms of the delta of Kern river that seem to afford proof positive that they are just as good property as productive and rich silver and gold mines—of that class we mean that stand highest among the brokers and speculators on Montgomery and California streets. As an illustration, and one, the facts of which may be easiest verified, we shall refer to the farm of Jewett & Anderson, situate about two miles southwest of Bakersfield. Of this, 130 acres are in alfalfa. During the summer 15 head of horses and 40 of hogs were maintained upon it, and in addition to those it has pastured, this fall and winter, 3,000 sheep and sixty head of cattle, and there is now in stack, taken from it; at a low estimate, seven hundred tons of hay for sale that seems to find a ready market. In fact it is almost the only hay for sale this side of the Panamint and Coso mines. We venture to say there is no mining property in the State, of proportionate value, that pays half as large a dividend to the owners. The field has as yet, by no means, attained its full stage of productiveness, and next year the yield will be much larger, with a better price for hay than even the present satisfactory rates.

MONTEREY.

REMARKABLE WEATHER.—Monterey *Democrat* Jan. 2: The season is an exceptional one, and the weather-wise are completely at fault. Three weeks ago the grass at Soledad Mission was a foot high, and cattle and horses were showing the effects of a bountiful pasture, the former having got already in beef condition, and the latter having shed their winter coat of hair. But the cold spell has spoiled all, and the country thereabouts looks now almost as if no rain had fallen. It is a physical law that one extreme begets another, and reason and philosophy certainly favor our belief that we shall soon be visited by south winds, bearing to us the much needed moisture. As to the degree and duration of the existing cold spell, there is no precedent furnished by the oldest inhabitant. Nobody that we hear of can remember such. The rule has been, three frosts and rain, but this year we have had frost after frost, until the atmosphere has had all the moisture it contained condensed and brought to the ground. Reverting to our theory, as to the effect of extremes, the drouth of '63-4 differed from the present in this, that then the prevalent winds were southerly, the general temperature was mild, and there was constant promise of rain.

SACRAMENTO.

ORANGE CULTURE.—The Sacramento *Agriculturist* says: "That this portion of the State is naturally the home of the orange is now beyond cavil, and soon we will be able to supply our local market with oranges that have no superior. Orange trees require longer to come into bearing than any other fruit, and hence we have had to wait for a number of years to see the results of these experiments. The present year, however, will bring several hundred trees into bearing in this immediate vicinity, and several thousand more in the adjoining counties. It seems remarkable, but it is true, nevertheless, that there is nearly a thousand trees in the Thirty-first street garden with golden fruit in the dead of winter. These oranges sell in the market for a dollar a dozen, and are preferred to any other oranges. Here, therefore, our citizens who engaged in the business had to import their trees; but now that it is demonstrated beyond doubt that our climate and soil are so admirably adapted to the growth of the orange, our nurserymen are propagating young trees to supply the demand. The culture of the orange is simple. Three hundred trees will grow on one acre, and when in full bearing will yield enormous profits."

SANTA CLARA.

PRAYING FOR RAIN.—Gilroy *Advocate*, Jan. 2: The prayer now is among farmers, for more rain. The long succession of dry weather, with heavy frosts at night and a warm sun during the day, has dried the moisture from the ground in many places, and the young grain and grass are lagging for want of rain. The indications were favorable last week for a shower, but none came, and it has been anxiously looked for all this week. Although we of the Santa Clara valley can do with less rain than many other sections, still, it would be most acceptable at this time.

GROUND DRYING UP.—San José *Mercury*, December 31st: Several of the farmers are almost through with putting in their crops, and some have had to quit plowing, the ground being too dry and hard. In some places in the low lands the ground is cracked some three inches wide.

THE GILROY TOBACCO COMPANY has been increasing its facilities for business. By present arrangements it will be able to turn out one million Havana cigars per month.

SONOMA.

CROPS ABOUT YACAVILLE.—A Yacaville correspondent of the *Valkjo Chronicle*, of Jan. 2d, writes as follows: The farmers in this vicinity are about through putting in their crops. They say they were never blessed with a better season so far, for their purpose, than they have had. Enough and no more than enough rain has fallen to permit plowing, so that they have

got their crops in at an exceptionally early period. The warm weather succeeding the rain has also given the grass a quick and vigorous growth, thus affording fine pasturage for stock. In some places vegetation stands seven and eight inches high. The weather, however, the last few days has been very cold, and the frost has been very heavy. Growers are very busy pruning their vines and trees and tending to their hot beds, etc.

EARLY VEGETABLES.—The Weldon Bros. are going into the vegetable business on a large scale this season. They have about 25 large hot beds. They have a great many fine tomato plants three and four inches high, also some fine cucumbers. They intend to make the latter a specialty. They plant the seed in small baskets made of wood or wire for that purpose, and then they put the baskets in the hot beds, and when the plants are three or four inches high, and when the cold weather is passed they take up the basket and plant them in the open air. In this manner they raise very early cucumbers, which bring in the San Francisco market from one to four dollars per dozen. Dr. Hubbard, of Lagoon valley, has two large hot houses planted with cucumbers; they are looking very thrifty and nice.

SAN JOAQUIN.

RAIN NEEDED.—Stockton *Independent*, Dec. 31: Tidings from the west side of the San Joaquin river are to the effect that, unless soon refreshed with rain, the grain crops must suffer damage. The crops generally throughout the valley were never in a more flourishing and promising condition at this season of the year, and any noticeable check thus far in the growth is confined to a few localities. The wind current from the bay sweeps uninterrupted along the plain between the river and the eastern base of the Coast Range mountains, and in addition to the bad effect of the drying winds, the character of the soil is such as to render it far less retentive of moisture than the land on the east side of the stream. While rain is really needed on the west side, a copious shower throughout the entire valley would be rather beneficial than otherwise.

SUTTER.

PROSPECTS.—Sutter *Banner*, Jan. 2: We learn from Jesse Hobson, a farmer near Gridley's station, that the farmers are putting in more grain than ever, much new land has been broken up, and the weather has been very favorable to the cultivators of the black land. The wild geese are very troublesome in that section, doing nearly as much damage as last year. Mr. Hobson also informs us that the Cherokee Mining company have made a proposition to farmers along the proposed line, that if they give the right of way through to Butte creek, they will construct a canal to carry off the washings from the mines.

SACRAMENTO RIVER.—Along the river from Moon's ferry above, to Vernou below, we hear evidences of good times, health and general contentment, each particular locality prides itself upon its healthy location. The cause of their prosperity is owing to their varied production, such as corn, barley, broomcorn, potatoes, beans, vegetables, fruit, butter, cheese, poultry, eggs, beef, and many other articles. With so varied a lot of products, the river farmers always manage to keep a little spending money on hand.

TULARE.

IMPROVEMENTS IN REAL ESTATE.—says the *Visalia Delta* in the form of ditches, railroads, warehouses, mills, public buildings, private residences, etc., in Tulare county alone has aggregated more than a million of dollars, during the present year. Probably not less than three hundred thousand dollars have been expended in ditches. School houses have been built in many of the new school districts, and the advance in this line has been fully up to the progress met elsewhere.

PATENTS & INVENTIONS.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

(FROM OFFICIAL REPORTS FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.)

By Special Dispatch, Dated Washington, D. C., Jan. 5th, 1875.

FOR WEEK ENDING DEC. 22d, 1874.*

HARROW.—David T. Gillis, Stockton, Cal.

GRAIN HEADER.—David T. Gillis, Stockton, Cal.

ANIMAL TRAP.—Gamos Richardson, San José, Cal.

SAFETY PIN.—Lucy Emma Andrews, S. F., Cal.

WATER GAUGE FOR STEAM BOILERS.—Charles C. Redmond, San José, Cal.

CHUCK.—William F. Foothaker, S. F., Cal.

DISTILLING SPIRITS.—Robert C. Brooks, S. F., Cal.

LOCKING LATCH.—Henry Rogers, Eureka, Cal.

TRADEMARK.

FOR BOOTS.—S. W. Rosenstock & Co., S. F., Cal.

*The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue. NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & CO., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with perfect security and in the shortest time possible.

Friedlander's Semi-Annual Grain Circular.

The readers of the Press in consulting the following synopsis of the above report will of course consider the well known source from whence it came:

Wheat.

SAN FRANCISCO, Jan. 1, 1875. Receipts from July 1st to December 31st, inclusive (100 pound sacks), 6,500,307; during same period last year, 6,030,640; during same period in 1872, 7,142,920; exports of wheat from July 1st to December 31st, inclusive, 5,490,810; during the same period last year, 4,709,220; during the same period in 1872, 5,353,541.

The receipts from Oregon (which are not included in the above), have been trifling, amounting to only 5,213 cents. The business of the past six months has been large, the exports exceeding those of any previous year, but it has been by no means a profitable one. The change in the English market from one of high prices to moderate, if not absolutely low ones, was very sudden, and our farmers found it difficult to reach it, and, accustomed as they had become to very remunerative prices, to ones which left but a small margin over the cost of production, they have been reluctant sellers throughout the entire season. So far the policy they have pursued has not proved good, and in view of the extreme apathy of English buyers, it is doubtful if those who have held their wheat will do any better in the spring. The requirements of Great Britain will not improbably exceed the first estimates, but with the large surplus available in the neighboring countries of Europe, and the large crop of the Atlantic States of America almost untouched any rise in England would be met and checked long before the remainder of our surplus could be brought into competition. The crops of Chili and Australia, too, will be floated rapidly from this time out, and these will naturally fill any demand for white wheats that otherwise might benefit California. The present planting season in this State has been all that could be desired, and the winter rains setting in nearly six weeks earlier than usual, a very large breadth of land has already been planted. Should we be favored with good spring rains, we may expect a large increase on the yield of last season, which was materially shortened by a dry spring. The market, as we write, is quiet but strong, the farmers beginning to show some anxiety about the weather; but as such or two of rain within the next fortnight would set a large amount of wheat free, and predispose holders throughout the State to meet the market. The offerings at present are very light, and good shipping parcels can be quoted under \$1.60 @ \$1.65 @ 100 lbs.

Barley.

Receipts of barley from July 1st to December 31st, inclusive (100 pound sacks), 99,850; during the same period last year, 710,800; during the same period in 1872, 685,910; exports of barley from July 1st to December 31st, 506,636; during same period last year, 193,476; during same period in 1872, 165,459.

In addition to the above we have received 2,632 cts. from Oregon. The large increase in the exports noted above was caused by the fact of the demand for the Atlantic States and the Mississippi Valley commencing much earlier this year than last. In the Fall of 1873 only a few hundred tons went over the railroad, but immediately after New Year the movement commenced and continued until upwards of 350,000 cts. had been moved away. This year the business is closing up about the time it then opened, and the shipments of the next six months will necessarily show a heavy falling off, compared with those made in the spring of 1873. The barley crop of this year was a good one, both as regards yield and quality, and the business done has been a satisfactory one in every respect. The stock, which was at the completion of harvest thought to be excessive, has been absorbed at good prices, and the amount remaining in the State at present is not more than our requirements demand. The farmers are much encouraged by the result of the last two crops, and are putting in a large breadth of land. The market, as we write, is very firm. Feed is worth \$1.30 and brewing \$1.50 @ \$1.55 @ 100 lbs. with a strong demand. The stock of Chevalier is about exhausted.

Oats.

Receipts of oats from July 1st to December 31st, inclusive (100 pound sacks), 216,126; during same period last year, 175,530; during same period in 1872, 189,410; exports of oats from July 1st to December 31st, inclusive, 53,149; during same period last year, 1,480; during same period in 1872, 1,970.

Received from Oregon (not included in above), 85,335 cts. The increase in exports this season is due entirely to a demand from Australia, the execution of which was rendered possible by the easy freights accepted by the steamers. The business in oats is of little or no interest outside our own border, so there is no call for extended comment on it. The crop was an ordinary one, if anything rather beneath the average, and the price has been kept down continually by receipts from Oregon, which were thrown on the market immediately on arrival. There is, however, a stronger feeling manifested at the close, and really choice parcels command \$1.75 @ \$1.85 @ 100 lbs.

Flour.

Receipts of flour from July 1st to December 31st, inclusive (barrels), 235,218; during same period last year, 239,912; during same period in 1872, 120,247; exports of flour from July 1st to December 31st, inclusive, 225,900; during same period last year, 391,218; during same period in 1872, 113,980.

Received from Oregon (not included in above) 27,419 barrels. The above shows a falling off in both receipts and exports, caused by the decreased demand for our flour in Great Britain. During periods of high prices there and here, we can frequently export flour to their advantage than wheat; but when bread is cheap in England, buyers will always prefer to import wheat. Our home consumption of flour has increased largely of late years as the population has filled up, and the millers generally have done a satisfactory business. Whenever, by opposition lines of steamers or high freights ruling there, our facilities for export to China are increased, we may look for a large accession to our exports of flour that way. At the close we quote superfines (in cloth) \$4.25 per barrel; shipping extras, \$4.50; bakers' extras, \$4.75.

Freights.

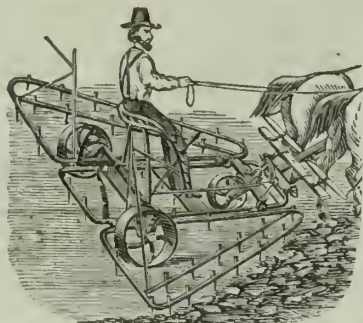
The circular gives a statement of the rate of freight at which every loog voyage vessel that has left the port during the past six months was chartered. The wide discrepancies in the list show the difference between what ships were supposed by speculators to be worth before the harvest was gathered, and what they really were worth when they got here. A very large proportion of the ships on the way were chartered prior to arrival at rates averaging considerably over \$4 for wheat to Liverpool; but the rapid decline in breadstuffs in England after harvest, and the persistency with which farmers cling to their wheat here, made the business a very disastrous one, and the losses involved one or two houses in ruin. A number of vessels chartered to these were consequently thrown on the market and had to accept going rates, which of course was most disastrous to owners, while those who sent their ships out free were bitterly disappointed in the prices they were offered. Thus the whole business was unsatisfactory and disgusting to all concerned, and the struggle between the shipowner and the farmer has continued all through the season. The amount of disengaged tonnage in port is large, aggregating fully seventy thousand registered tons, and that to arrive within the next three months is at least one hundred

Agricultural Articles.

THE CALIFORNIA HARROW,

—MANUFACTURED BY THE—

Kimball Car and Carriage
Manufacturing Company,
Cor. Bryant and Fourth sts., San Francisco.



IN THE FIELD.

The California Harrow, large numbers of which we are now making, has seven distinct and well defined improvements possessed by no other Harrow, each of which saves both time and labor.

FIRST—This Harrow has an easy seat and three wheels, all attached to the central section, on which the driver rides and manages the Harrow and team with ease and comfort.

SECOND—By means of but three levers the driver in his seat on the Harrow can raise the Harrow and himself on the wheels, and trot to and from the field, and without leaving his seat can let the sections down and proceed with his work.

THIRD—By the use of but one lever conveniently situated at the right side, the driver in his seat, and without stopping his team, can regulate the depth of the Harrow teeth in the ground, and can set them deep or shallow, as the conditions of the soil require. This meets a demand for harrowing Alfalfa or small grain, in the spring.

FOURTH—This Harrow is made in three sections, connected by loose hinges. The driver, as he moves along on the field, can raise any one of the sections, and pass a tree or stump, or other obstacle, without interfering with the work of the other two sections.

FIFTH—By the use of a brace made of a board but 3 feet long and 3/4 inches, let on the tops of the levers of the wings, this can be made a stiff Harrow, and the driver by lowering the lever at his right can throw his weight and that of the wheels and extra fixtures on and off at his pleasure.

Complete work can be done up to and all around trees, without changing the course of the team.

We build these Harrows of wood and tubular iron, making beautiful and very powerful Harrows, unaffected by exposure to the weather.

We have many number of letters in praise of these Harrows from farmers who have put them to practical use.



ON THE ROAD.

The KIMBALL CO. are the owners and sole manufacturers of the celebrated IMPROVED EAGLE HAY PRESS, which has become so popular the past few years. For further information send for circulars.

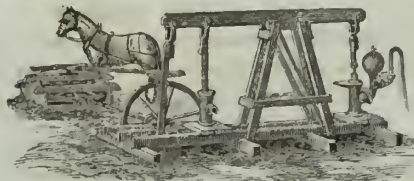
VINE AND FRUIT GROWERS,

TO RAISE LARGE CROPS

YOU MUST IRRIGATE.

To irrigate successfully, you must have the power that does not give out when the wind fails.

Laufkotter Bros. & Churchman's Horse-Power,



(PATENTED FEBRUARY 13th, 1872.)

Never fails to supply more water than four or five Windmills, even supposing you had all the wind you want. It is also suitable for running light machinery, such as Barley Crackers, Corn Shellers, Fanning Mills, Grain Separators, or for Sawing Wood. They are never failing, cannot get out of order, easily worked, substantial, and always give satisfaction wherever they have been used. One horse can easily work two 6-inch pumps, with a continuous flow of water. Force Pumps, from 3,000 to 10,000 gallons per hour. WINDMILLS of all kinds manufactured to order. Wells bored, Windmills and Horse-Powers set in any part of the State, and repairing of all kinds done.

Manufactured and for sale by

LAUFKOTTER BROS.,

v7-2m-3m Cor. J and 10th Sts., Sacramento.

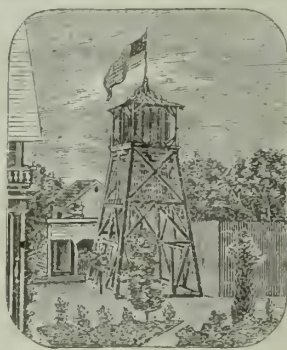
Farmers and Threshers

WISHING TO HAVE

STRAW BURNING ENGINES

For next season must engage them soon, as most of those now building are already sold. Threshing Engines for Repairs should be sent in now. A number of Second-hand Engines—taken in exchange for "Straw Burners"—for sale cheap. For particulars and prices, address:

H. W. RICE, Haywood, Alameda County.



Parties who have been troubled with
Windmills blowing to pieces and get-
ting out of repair should by all
means examine the

DEXTER,

THE ONLY PERMANENT MILL IN EXISTENCE.

It runs with lighter wind than any other; regulates itself in a gale; and has never been known to be injured by storms, although it has stood for six years on the Plains of Kansas, Nebraska, Missouri, Iowa and Illinois, where no other mills have been known to stand any length of time. All we ask is a full investigation of the DEXTER.

A. H. SOUTHWICK & CO.,

OFFICE—428 Sansome Street.....SAN FRANCISCO

4v8-cow-3m

MANUFACTORY, FOOT OF BROADWAY, OAKLAND.

The attention of Wool Growers is continually invited to the

Thoroughbred Stock Bred and Kept on the
MERINO RANCH,

Situated at Niles, Alameda County, Cal., only five minutes walk from the station, junction of San Jose and C. P. R. R. Parties desiring to visit our ranch can leave San Francisco at 3 o'clock P. M., and have an hour at the ranch, returning on Overland train at 6 P. M. Or coming out in morning, can return to city at 11 o'clock A. M. The proprietors make the

THOROUGHbred SPANISH MERINO SHEEP A SPECIALTY,

Believing them to be the BEST SHEEP IN THE WORLD, and are constantly receiving fresh importations from Addison County, Vermont.

Our flock are all Imported Sheep, and have no superiors in the United States. We always have on hand choice young RAMS and EWES, of all ages, for sale at Reasonable Prices, giving time, if required, to responsible parties. City Office—315 California Street, San Francisco.

SEVERANCE & PEET,

Importers and Breeders of Spanish Merino Sheep.

10v7-cow

THE TREADWELL SULKY



GANG PLOW.

Improved for 1874, with BLACK HAWK Plow Bottoms, is the best GANG PLOW in the world. It is Simple, Strong and Durable, and does its work effectually. Has high wheels, running both on unplowed land; iron axle, wrought iron beams, and is built nearly all of iron and steel. No farmer should neglect to see it before buying. Send for descriptive circular and price. We have also the "VICTOR GANG," with hard wood beams and heavy cast iron standards; price, \$75. Also the "GOLDEN STATE GANG," with all iron beams; price \$75. "PRIEL'S GANG," improved; price \$50; old style, \$25. The largest and best stock of Plows, Harrows, Cultivators, Grain Drills, Seed Sowers, Farm Wagons, etc., in the country.

TREADWELL & CO.,

18v8-1f

San Francisco

O. CHEGO.

S. O. BOWLEY.

CREGO & BOWLEY,

Importers and Manufacturers

—OF—

CARRIAGES and WAGONS,

No. 9 Merchant's Exchange,

CALIFORNIA STREET.....SAN FRANCISCO

Keep constantly on hand top and open Buggies, top and open Rockaways, Jump-seat Buggies, Track and Road Sulkies, Skeleton Wagons, Basket Phaetons of the very latest styles and finest workmanship.

We would call particular attention to our fine stock of light Road and Trotting Wagons, made to order by the following celebrated makers:

Charles S. Coffrey, Camden, New Jersey;
Helfield & Jackson, Rahway, New Jersey;
Gregg & Bow, Wilmington, Delaware;
And the first-class makers, which we are prepared to sell on the most reasonable terms.

Also, a large assortment of single and double Buggy, of the most celebrated makers:

C. Graham, New York; J. R. Hill, Concord; Pittkin & Thomas, Philadelphia.

Also, a full assortment of Dress and Light Blankets, Fur and Lap Robes, Whips, Halters, Surcingle, etc., at wholesale and retail.

CREGO & BOWLEY,

No. 9 Merchant's Exchange, California street, San Francisco.

MATTESON & WILLIAMSON'S

AMERICAN CHIEF



GANG PLOW.

Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knobs without changing the working position of the share. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m

MATTESON & WILLIAMSON,

Stockton, Cal.

THE CALIFORNIA SCRAPER,

—MANUFACTURED BY THE—

Kimball Car & Carriage Man'g Co.

COR. FOURTH & BRYANT STS., S. F.



THE CALIFORNIA SCRAPER.

This Scraper has been long needed in many departments of labor. Heretofore all classes of Scrapers have imposed immense labor and hardships on the driver, but this one is so constructed as to give him a place to ride, and yet manage the team and Scraper with ease in all classes of work.

The driver can throw his weight in front, and force the Scraper into the soil, and when he has gathered his load and driven to the place of deposit, he can throw his weight on the rear part of the platform and leave the load all in one place, or deposit it gradually, as the case may require, leaving the ground smooth and level.

This improvement is well adapted to leveling all irregularities on the surface of the soil where parties are preparing to irrigate.

For making roads, removing dirt from ditches, cleaning up barn yards or sheep corrals, it has no equal.

The KIMBALL CO. are sole owners and manufacturers of the celebrated IMPROVED EAGLE HAY PRESS, also the California Harrow. For further information send for circular.

Black Hawk,
Collins,
"Jones,"
Peoria,
Plows

Of all kinds and sizes. The largest stock ever offered in California; all new and just received, at low prices. Also, Cultivators, Harrows, Seed-Sowers, etc. Sold by

TREADWELL & CO., San Francisco.

Send for Price List.

18v8-1f

Notice—To Tule Land Owners.

I am manufacturing a Gang Plow specially adapted to ploughing Tule Lands. Address

Vallejo Foundry, J. L. Heald, Prop.,

18v29-3m

VALLEJO, CAL.

THE CELEBRATED

H. H. H.

HORSE MEDICINE

IS STILL AHEAD OF ALL OTHERS.

The Wholesale Druggists of San Francisco, give evidence of its appreciation throughout the State, by and rapidly increasing orders. We pledge it a cure for SPRAINS, WIND GALLS,

SWEENEY, SCRATCHES,

LAME AND STIFF JOINTS,

CALLONS, LUMPS,

AND ALL BLEMMISHES,

SPRAINS OR BRUISES.

It is a household blessing and no family should be without a bottle in the house. For sale everywhere.

WILLIAMS & MOORE, Prop's.,

28v8-6m

Stockton, Cal.

Geological Puzzle.

Prof. R. Weiser, of Georgetown, Colorado, contributes the following to the *Journal of Science and Arts*: Geologists have been not a little perplexed with the frozen rocks found in some of our silver mines in Clear Creek county, Colorado. I will first give a statement of the facts in the case, and then a theory for their explanation. There is a silver mine high up on McClellan mountain called the Stevens mine. The altitude of this mine is 12,500 feet. At the depth of from 60 to 200 feet, the crevice matter, consisting of silica, calcite and ore, together with the surrounding wall-rocks, is found to be in a solid, frozen mass. McClellan mountain is one of the highest eastern spurs of the Snowy range; it has the form of a horseshoe, with a bold escarpment of feldspathic rock, near 2,000 feet high, which in some places is nearly perpendicular. The Stevens mine is situated in the southwestern bed of the great horseshoe; it opens from the north-western. A tunnel is driven into the mountain on the lode, where the rock is almost perpendicular. Nothing unusual occurred until a distance of some 80 or 90 feet was made; and then the frozen territory was reached, and it has continued for over 200 feet. There are no indications of a thaw, summer or winter; the whole frozen territory is surrounded by hard, massive rock, and the lode itself is as hard and solid as the rock. The miners being unable to excavate the frozen material by pick or drill, to get out the ore, (for it is a rich lode, running argentiferous galena from 5 to 1,200 ounces to the ton), found the only way to kindle a large wood fire at night against the back end of the tunnel, and thus thaw the frozen material, and in the morning take out the disintegrated ore. This has been the mode of mining for more than two years. The tunnel is over 200 feet deep, and there is no diminution of the frost; it seems to be rather increasing. There is, so far as we can see, no opening or channel through which the frost could possibly have reached such a depth from the surface. There are other mines in the same vicinity in a like frozen state.

From what we know of the depth to which frost usually penetrates into the earth, it does not appear probable that it could have reached the depth of 200 feet through the solid rock in the Stevens mine, nor even through the crevice matter of the lode, which as we have stated, is as hard as the rock itself. The idea, then, of the frost reaching such a depth from the outside, being utterly untenable, I can do no other way than to fall back upon the Glacial era of the Quaternary. Evidences of the Glacial period are found all over the Rocky mountains. Just above the Stevens mine there are the remains of a moraine nearly a mile long, and half a mile wide. The debris of this moraine consists of small square and angular stones, clearly showing that they have not come from any great distance. And just over the range, on the Pacific slope, there are the remains of the largest moraine I have ever seen, consisting of fieldspathic boulders of immense size. I conclude, therefore, that it was during that period of intense cold that the frost penetrated so far down into these rocks, and that it has been there ever since, and bids fair to remain for a long time to come.

Glass For Veneering, Paneling, Etc.

Allusion has already been made in these columns to the use of glass for lining of tanks, etc., and to take the place of the ordinary enamel on iron—a method for the practical accomplishment of which has been devised and patented. The great object to be gained by this is a surface easily cleansed, and the possibility of perfect cleanliness—as for fermenting vats, etc. It also offers a solution to the lead poisoning difficulty.

It may also be used for veneering and decorating purposes, in many cases with very good effect. Designs might be colored and placed under glass and so preserved from fading and wearing.

Another good suggestion has been made by a writer in the *London Builder* that thick glass might be easily and cheaply cemented to the walls of hospitals, etc. It would be non-absorbent, imperishable, easily cleaned, readily repaired if damaged by accident, and, unlike paper and paint, would always be as good as at first. Glass can be cut or bent to conform to any required shape. If desired, the plates may be colored any cheerful tint. The non-absorbent quality is the most important for hospitals and prisons, and, we should think, is worthy the consideration of architects.

PROFESSIONAL STATISTICS.—In England there is one lawyer for every 1,240 of the population; France, one for every 1,970; in Belgium, one for every 2,700; and in Prussia, one for every 12,000 only. Another curious fact is that in England the number of persons belonging to each of the different professions is nearly the same. Thus there are 34,970 lawyers, 35,488 clergymen, and 45,955 physicians. In Prussia, on the other hand, there are 4,800 physicians to only 1,362 lawyers.

A CHAIN of compressed cakes of gun cotton tied around the trunk of a large tree and exploded will, it is stated, cut it down instantly by the violence of its action. The cut through the trunk is as sharp as that made by the keenest ax.

Economic Use of Fuel.

The following interesting summary is from an address recently delivered before the Royal School of Mines, at Berlin, by G. F. Becker: The progress in the economical consumption of fuel in the last fifty years has been enormous, and has been effected in great part by metallurgists; and here again we find the scientific men taking the lead. In the economical application of the heat developed by fuel, the Bessemer process is enormously effective, not more than ten pounds of coal being requisite for the production of a hundred weight of steel from pig iron by this method, while in the older process, still in use for fine qualities of steel, two hundred and fifty pounds are needed. Siemens, by making the heat which would escape through the chimney of an ordinary furnace warm the fuel and the air necessary to combustion, obtains an economy of two-thirds the weight of fuel. It was Faber du Faur, an accomplished Bavarian metallurgist, who first made practical use of the gases which formerly escaped in immense quantities from the tops of blast furnaces and the enormous blast engines, the hoisting engines, pumps and hot blast stoves, even the roasting kilns of such establishments now-a-days require no fuel except this long-neglected waste product. Bischof, another German engineer and metallurgical author was the first to produce gas artificially for smelting purposes, and this was certainly one of the greatest advances ever made in our art. By first turning it into gas, fuel can be much more perfectly consumed than in the solid form, and hence can be made to give us, as in the Siemens furnace, in which only gas is used, a much higher temperature than is practically attained by the combustion of coal in the ordinary way, but perhaps the greatest advantage of gas is that substances, in general scarcely regarded as fuel at all, can be employed for the production of gas with the most brilliant results, a matter of the greatest importance, especially in a region destitute of true coal, like California. Lundin, a noted and thoroughly educated Swedish metallurgist, has taught us how to produce gas from waste, entirely without preparation, of such power that wrought iron may be melted with it, and the great difficulty is to find any material infusible enough to answer as a lining in the furnaces where it is consumed. You will receive some idea of the importance of these improvements from the fact that the economy in fuel effected in England alone in the year 1872, as compared with 1871, by the progress made in the introduction of more perfect apparatus, represented more than four millions of tons of coal.

The Mysteries of the Human Throat.

Dr. Frederick Fieber, of Vienna, like the little boy with his drum, not content with enjoying the melody of Madame Pauline Lucca, has made a close scrutiny of the throat whence the sweet sounds issue, and publishes the result of his investigations. The mechanical apparatus which is the instrument of the mental faculty, appears, in Madame Lucca's case, to be beautifully perfect, the result to some extent, perhaps of congenital fitness, but also doubtless, partly of the scientific training to which the artist has been subjected in early youth. Examined under the laryngoscope, the larynx appears small and well shaped, its several parts being marvelously developed and perfect. The true strings are pure snow white and possess none of the bluish tinge common among women. Although shorter than usual among vocalists they are stronger in proportion and amply provided with muscle. When at rest they are partially screened by the false strings; but Dr. Fieber, who watched Madame Lucca's throat through his instrument whilst she was singing, noticed that as soon as a tone was struck, they displayed themselves in their full breadth and strength. The aid given by a suitable form of mouth to the production of vocal music is a novel and interesting point brought out by Dr. Fieber. On being admitted to a view of the artist's mouth he was at once struck with the spaciousness and symmetry of its hollow, the otherwise perfect symmetry being impaired only by the absence of a tonsil, which had been removed, as well as with the vigor with which every tone produced raised the "sail" of the palate. Dr. Fieber is of opinion that the natural conformation of her mouth accounts in a large measure for the wonderful power Madame Lucca possesses of raising and dropping her voice alternately. The sound waves are naturally strengthened in so favorably shaped a space, while the muscles of the palate appeared to have acquired exceptional strength and pliability by long practice.

IMITATION PATENTS.—The practice of patenting imitations of articles of standard excellence is growing in favor in the United States. A patent lately granted is for producing an imitation of Russian sheet iron. This is done by hammering the sheet between anvils and hammers that have indented surfaces, so as to give the sheet a mottled appearance. Another patent is for an imitation Swiss window shade, in which the lace work is imitated by stencils.

IMPROVING RIVER NAVIGATION.—An appropriation was granted by the last Congress, furnishing \$40,000 for improving the navigation of the Ohio, near Pittsburg. It is expected that this appropriation will test the efficiency of the system of the improvement of rivers by the erection of dams.

Nurserymen.

Established 1853.

Stocks for Nurserymen.

Plum Seedlings, Mirobolan, the best French stock, does not sucker. \$50 per 1000
 Apple Seedlings..... 10 per 1000
 Pear Seedlings..... 10 per 1000
 Cherry Seedlings, Mazzard..... 12 per 1000
 Cherry Seedlings, Mahaleb..... 20 per 1000
 Walnuts, English, 4 to 6 feet..... 15 per 100
 Cork Elm, best Elm, 4 to 6 feet..... 15 per 100
 Blue Gum or Eucalyptus, in variety..... 5 to 10 per 100
 Magnolia Grandiflora.....
 Magnolia Acuminata.....
 Magnolia Tripetala.....
 Golden Arborvitae.....
 Magnolia Tripetala.....
 Crataegus Arbutifolia.....
 Swedish Juniper.....
 Irish Juniper.....
 Heath-leaved Arborvitae.....
 Heath, Mediterranean..... \$2 50 per doz.
 Laurustinus, 6 to 12 in..... 2 50 per doz.
 Making the growth of Oranges and Lemons a specialty, I have imported from all sources the best known varieties, and now offer five thousand Grafted Trees properly worked and twice transplanted at \$18 per dozen. Grafted oranges by the 100 or 1,000 at prices on application. The amateur in want of large PALMS, large AURICARIAS, large CAMELIAS and large TREE FERNS, a good stock on hand; also the usual large stock of fruit and ornamental trees.

BERNARD S. FOX,
 San Jose, Cal.

THOS. MEHERIN, Agent, 516 Battery Street, San Francisco. 24v83m.

The Aughinbaugh Blackberry



This new and excellent variety of Blackberries, are ready for market from the first to the fifteenth of May, and continue to produce berries until the middle of July, about the time other varieties begin to ripen.

Plants are now ready for transplanting and for sale at my residence on Washington Avenue, west of Euclid Street, Alameda, and at Geo. F. Silvester's, 317 Washington Street, San Francisco. Price, \$25 per hundred plants.

G. AUGHINBAUGH.
 23v8-tf

SHINN'S NURSERIES,

NILES' JUNCTION,

Alameda County, California.

The attention of persons intending to set out Trees is requested to the well grown and large variety offered for sale by the undersigned at the above Nurseries. An examination of our stock will satisfy any one of the quality, being all that can be asked, and when the low prices we have fixed are taken into consideration, we believe we are offering the very best inducements for buyers to deal with us. For full particulars we refer to our circular for the approaching season, which will be sent, as requested, on application to either of the undersigned.

SHINN & CO.,
 Proprietors.

Address James Shinn, Niles, Alameda County, Cal., or, Dr. J. W. Clark, 418 California street, San Francisco, Cal. 8v17-4mo.

J. ROCK'S NURSERIES,

San Jose, California.

We offer this season a Complete Stock of

FRUIT AND ORNAMENTAL TREES, SMALL FRUITS AND PLANTS.

The attention of Dealers, Nurserymen and Planters is invited to our Large Stock of Fruit Trees. All Leading Market Varieties are grown in large quantities. To all those purchasing largely we will make a Liberal Discount. Catalogues FREE on application.

23-v8-tf JOHN ROCK, San Jose, Cal.

ALMOND TREES.

35,000 Brier's Languedoc Almond Trees. one and two years old from the bud. This is the only Almond planted on a large scale, being hardy, late blooming, beautiful tree. It bears the second year from planting. The Almond is large and sweet with soft shell. Also, two year old Peach and English Walnut trees. Liberal terms to the trade and persons planting large orchards. Send orders to

W. W. BRIER,

21v8-3m Centerville, Alameda Co., Cal.

Peaches, Apricots and Prunes are specialties at the Vacaville Nursery, Solano County, California. Alexander's Early, Thurber and Peento in bud, 50 cents each; Beatrice, Louise, Rivers' Early, Lord Palmerston, Lady Palmerston, Prince of Wales, Princess of Wales, Picquet's Late, Lady Parham, Italian Dwarf, Golden Dwarf, Bloodleaved and many other varieties of new Peaches in bud, at 25 cents each; Trees of Alexander's Early, \$1 each; Beatrice, Plowden, Freeman and a general assortment of the leading varieties, 25 cents each; Apricots, Plums, Apples, Pears, Cherries, Almonds, Figs, Olives, Pomegranates and including most of the leading varieties of fruit for sale at low prices. D. E. Hough, Vacaville, Solano Co., Cal.

Fruit, Shade and Ornamental

EVERGREEN TREES

—AND—

Plants for Sale

At the old stand, corner Oregon and Battery streets, directly opposite Post Office, San Francisco.

I NOW OFFER FOR SALE

The Largest and Best Collection of Fruit, Shade and Evergreen Trees and Plants ever offered in this market, and at Reduced Prices.

Persons laying out new grounds would do well to call and examine our stock before purchasing elsewhere.

ORDERS FROM THE COUNTRY

Promptly attended to and packed with great care. A large stock of Cypress, Pines and Blue Gums for sale very low. Send for Price Catalogue.

Agent for B. S. Fox's Nurseries, San Jose, Address

THOMAS MEHERIN,

P. O. Box, 722, 516 Battery St., S. F.

SUPERIOR FRUIT TREES

TRUE TO NAME.

A fine collection of Evergreen and Deciduous Trees. Australian Gum Trees in variety, by the hundred or thousand. Monterey Cypress in quantities and sizes to suit all. Orange and Lemon Trees at reduced prices. A general variety of Nursery stock.

Also, Rhubarb and Asparagus roots.

T. CORLEY,

18v29-tf 315 Washington Street, S. F.

THOS. A. GAREY'S

Semi-Tropical Nurseries.

LOS ANGELOS, CAL.

Forty varieties of the Citrus family of semi-tropical trees, including many rare and beautiful, as well as useful and profitable kinds.

Grafted and Budded Orange Trees a specialty. Trees packed to arrive in good order. Priced Catalogue sent free. Address me P. O. Box, 528, Los Angeles city, Cal.

23v8-6m THOS. A. GAREY.

PEPPER'S NURSERIES.

(Established in 1858.) PETALUMA, CAL.

Green Houses and Tree Depot corner Washington and Liberty streets.

4 Green Houses. 3,000 feet of Glass. Fruit Trees a Specialty.

We offer for sale at lowest market rates a general assortment of Fruit and Shade trees, small Fruits, Vines, etc. Evergreen trees and Shrubs in great variety. Green House, Conservatory and Bedding Plants, Roses, etc. We are now ready, Nov. 1st, to fill orders for trees and plants. Catalogue and price-list furnished on application.

Address, W. H. & G. B. PEPPER,
 19v8-tf Petaluma, Sonoma Co., Cal.

80,000

AUSTRALIAN GUM TREES.

FOR SALE AT THE CELEBRATED

GUM TREE FOREST NURSERY,

Haywards, Alameda Co.

Address

JAMES T. STRATTON,

No. 306 Pine street, over Pacific Bank, S. F. 22v8-tf

JAMES HUTCHISON'S

NURSERIES AND SEED STORE,

OAKLAND, CAL.

Established 1852. P. O. Box 331.

An immense collection of Evergreen trees, Shrubs and Flowering Plants wholesale and retail: New and rare plants, Roses, Fuchsias, and Carnations a specialty. I invite inspection. Catalogues on application.

25v8-3m

THE ALDEN

Fruit Preserving Company

OF CALIFORNIA,

Is now prepared to sell rights and furnish the necessary machinery for using the "ALDEN PROCESS," acknowledged to be the best method known for preserving Fruits, Vegetables, Meats, etc.

For full particulars call at the company's

Office, 426 Montgomery St., S. F.

G. W. DEITZLER, President.

W. M. WHERRY, Vice-President.

FRANK PYLE, Sec'y and Sup't.

BANK OF CALIFORNIA, Treasurer.

11v7-6m

AMERICAN SWEET CHESTNUT TREES.

Thirty Thousand American Sweet Chestnut Trees for sale cheap, in lots to suit, at Room 32 Merchants' Exchange, San Francisco, where samples may be seen. The trees are two years old, and in prime order. Will be delivered either in this city, Oakland or Sacramento. These trees are valuable for nuts, timber, shade trees or lawn trees; and are preferred by many to any of the foreign varieties.

W. L. CHURCH, formerly newspaper agent, will please address this office.

Seedsmen.

SEEDS. SEEDS.

Encourage home industry and make a saving of at least 30 per cent.

If you want Seed that you can depend upon as to variety and freshness, why not send your orders direct to the grower and make a saving of at least thirty per cent. on the prices of other seedsmen. Send for catalogue, free, post-paid, and compare with prices of other dealers. Just received,

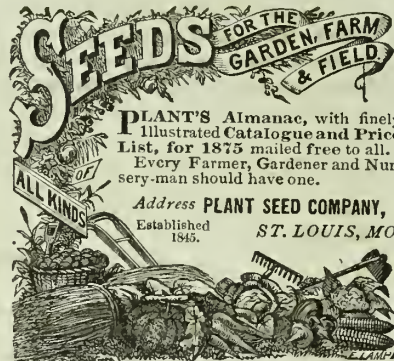
Grasses, Clover, Alfalfa and Field Seeds, Fruit and Evergreen Trees, Shrubs, Flowering Shrubs, and Green-house Plants, Cabbage, Onion and Cauliflower Plants.

Large assortment of Bulbs from Holland. Address: all orders or letters of inquiry, to

SEVIN VINCENT,

607 Sansome street, San Francisco, Cal.

22v8-3m



25v8-01-eow

Gregory's Seed Catalogue.

My annual catalogue of Vegetable and Flower Seed for 1875, will be ready by Jan. 1st for all who apply. Customers of last season need not write for it. In it will be found several valuable varieties of new vegetables introduced for the first time this season, having made new vegetables a specialty for many years. Growing over a hundred and fifty varieties on my several farms, I would particularly invite the patronage of market gardeners and all others who are especially desirous to have their seed pure and fresh, and of the very best strain. All seed sent out from my establishment are covered by three warrants as given in my catalogue.

JAMES J. H. GREGORY, Marblehead, Mass



I will send 12 Flowering Plants for One Dollar (your choice from 100 sorts), by MAIL OR EXPRESS. MY ILLUSTRATED CATALOGUE, describes the culture of Plants & Seeds, to customers free; others, 10c. Address WM. E. BOWDITCH, 645 Warren st., Boston, Mass.

A GOOD GARDEN

Can not be had without GOOD SEED, and I have endeavored in every way to make mine THE BEST. My GARDEN MANUAL, besides containing the most COMPLETE TREATISE on Hot-bed ever published, is FULL OF PRACTICAL HINTS and LABOR-SAVING METHODS, learned in many years' market-gardening. Sent for two stamps. J. B. ROOT, Seed-Grower, Rockford, Ill.

Hooper's South End Grain Warehouse.

Japan and Townsend Streets.

SAN FRANCISCO, July, 1874.

I beg to inform you I have leased the above first-class Fire-Proof Brick Warehouse, now being erected by Geo. F. Hooper, Esq., and will be ready to receive storage on the 1st of August. This warehouse offers superior inducements to parties desiring to store grain and flour, as it is situated on the Water Front, and on the line of the C. P. R. R. and S. P. R. R. It is well ventilated, rat proof, and combines all the modern advantages and improvements.

Yours respectfully, JOHN JENNINGS. Advances and insurance effected at the lowest rates. Storage taken at lowest current rates. 4v8-ft

FOR SALE OR TO LEASE.

A fine place, well adapted for keeping summer boarders. Two large houses, orchard, vineyards, natural forest and good springs, water brought into the houses. Location and scenery unsurpassed.

A. E. BALL,

Office of Sawyer & Ball. 502 Montgomery St.

HOP ROOTS FOR SALE.

I have a lot of choice HOP ROOTS, and also healthy BLACKBERRY SETS for sale at LOWEST RATES. Orders may be addressed through DEWEY & CO., of the Rural Press, San Francisco; ROBT. WILLIAMSON, Capital Nurseries, Sacramento; or to me,

CALVERT T. BIRD,

24v8-3m San Jose, Cal.

Business Notice to Subscribers of the California Granger.

Office of the CALIFORNIA GRANGER,
No. 416 Market Street, S. F.

On this first day of January, I have transferred the entire list of subscriptions of the CALIFORNIA GRANGER to the publishers of the PACIFIC RURAL PRESS, together with the advertising patronage and entire business and good will of said newspaper.

For advance payments of subscriptions to the GRANGER, at the rate of \$2 per annum, MESSRS. DEWEY & Co. have contracted to furnish the RURAL at their club rates, \$3 a year.

As the 16-page sheet of the RURAL now contains in its solid and condensed type fully twice the amount of reading lately given in the weekly issues of the GRANGER, I consider the change a liberal one towards my patrons, and I trust they will be well satisfied with the transfer. No other provision could be made more just and ample.

I heartily recommend that all who are able extend their subscriptions to the RURAL Press—a highly valuable journal for the patronage of all intelligent farmers on this coast. By mutual arrangement, all money due for subscriptions for the GRANGER will be received by DEWEY & Co., on my account. Secretaries and others acting as my agents, will please report accordingly all subscription money to the office of the RURAL.

GEO. W. HENNING.

Office of the PACIFIC RURAL PRESS,
No. 224 Sansome Street, S. F.

Having received the entire subscription list of the CALIFORNIA GRANGER, as above announced, we would assure its patrons that the contract will be faithfully carried out by us in a manner to give all the satisfaction possible to subscribers. Our list, thus increased to some 8,000 subscribers, we shall endeavor, with new correspondents and helpers, to produce an improved sheet, in everywise faithful and attentive to interests of all time Patrons and farmers.

We shall send the RURAL for the present to all the subscribers of the GRANGER, whom we invite to give, especially the first numbers received, a careful reading. Each member of the household should examine its pages of variously interesting reading.

If your subscription to the GRANGER is paid in advance of this date, we trust that when the amount of subscription transferred to your credit on the RURAL has expired, you will prove its acquaintance sufficient to induce you to renew your patronage.

We find many of our own subscribers on the list of the GRANGER, all of whom will have their subscription date to the RURAL advanced in proportion to the amount they have paid the GRANGER for subscription beyond the week ending Saturday, Jan. 2d, 1875. Such subscribers will please examine the date on the right of the printed label, and if due credit is not soon given, inform us of the fact without delay. Should we overlook some names in so large a list and send two copies, please write us of the fact.

Those who are in arrears for subscription to the GRANGER are invited to subscribe for the RURAL as early as possible, and to remit in addition to their advance payment, the sum due for the GRANGER to Jan. 2d, 1875.

It is not our intention to send the paper beyond the term paid for to any person who does not wish it, and we request any one who may possibly so receive it, to inform us directly in writing, and (arrears paid) there shall be no delay in stopping when notice is received.

Secretaries and all agents for the Granger receiving this notice are requested to act for us in collecting dues for the Granger to January 20, 1875, and soliciting the subscribers to extend their patronage to the PACIFIC RURAL Press by advance payments in clubs at \$3 a year. For further information, address

DEWEY & Co., Publishers,

No. 224 Sansome street.

"Rural" Facts.

The RURAL a high priced paper!—Is it? Not much! Let us consider the matter a moment.

Most agricultural papers space their lines out with leads. The RURAL is made mostly "solid." This gives it nearly one-third more lines.

Again, many rural journals contain more than one-half advertising. The RURAL runs regularly about one-half that amount, or one-fourth advertising matter.

Again, it contains more original agricultural matter more original domestic and farming correspondence, matter more condensed and carefully prepared and at greater expense than any other agricultural issue published in the United States.

Again, it is illustrated with a greater number of interesting and instructive engravings (greatly more expensive to publishers than reading matter) than can be found in any other agricultural weekly in the Union.

Again, the RURAL inserts no quack advertisements; humbug, enticing, immoral advertisements.

Again, by producing on this coast, for the benefit of all on this coast, so good a paper for our limited population, is it not comparatively cheap?

Again, would the class of readers who take the RURAL Press prefer a paper at half the price of the RURAL with its advertising columns filled with quack advertisements? with intriguing, debasing notices and shrewd dodges? or its reading columns profusely interspersed with wily paid puffs? We think not! We know you would not! We have not made money out of the RURAL Press. We hope it will pay well sometime in the future. But it will not be from doubtful advertisements, paid puffs, contracted and careless editorial work. Unscrupulous publishers make the most money on cheap subscription and reckless advertising sheets; but are they the best, or really the cheapest papers for patrons to spend their time in reading?

M. FALLON,

Cor. Seventh & Oak sts.,

OAKLAND, CAL.

Light & Dark Brahmas,
Buff, White and Partridge Cochins,
Spangled, Golden and Silver Polish,
Spangled, Golden and Silver Hamburgs,
Pure White-faced Black Spanish,
White and Brown Leghorns,
Silver Grey Dorkings,
Houdans, Silkies, Black-Red Games,
Bronze Turkeys, Rouen and Aylesbury Ducks.

All from Premium Stock of Best Strains

Fowls of above varieties for sale; also, Chickens in their season. Eggs packed with care and sent in rotation as orders are received. 149-150-tf

BRONZE TURKEYS.

THE HEAVIEST IN THE WORLD!

MY SPECIALTY.

I was the first man on this Coast to import and breed mammoth Bronze Turkeys. I have as progeny of my imported birds, for their age, that the world ever saw. One pair, 19 months old, now weigh over 72 pounds; Toms 40 pounds and over, Hens 30 to 35 pounds. This is not what the birds weighed six months since or what they will weigh when fattened, but what they weigh now as they run with the flock. During the coming season I propose to sell eggs for hatching from this stock; the eggs will be packed in my improved shipping box, which carries safely. Orders now received for early Spring delivery. I can spare a few extra large Toms; also, a few pair of great size. Weight guaranteed or no sale. I offer fowls and eggs from my very fine and choice collection of Brahmas, Cochins, Leghorns, Houdans, Ducks, etc. My yards contain the best strains of the above varieties. For further information apply to

C. W. WILSON,

P. O. 1874.

San Francisco.

FOR SALE.

HOMESTEAD AND FRUIT ORCHARD

About thirty-five miles from Stockton, containing three acres of land, a good house of eight rooms, good well, etc. Over two hundred fruit trees all in fine bearing order; such as Peach, Pear, Apricot, Apple, Plum, Figs, Oranges. A fine chance and a good market. Price, \$1,800. Title perfect. Apply to

GEO. W. CHAPIN,

434 Montgomery street, S. F., or this Office.

WANTED.

SWEET CLOVER, (Melilotus Alba.) about 500 pounds cured like hay. Any one having the above article to the amount of 500 pounds, more or less, will please address the subscriber, who will purchase at remunerative rates. Address

A. J. HATCH,

2v9-11a

Reno, Nev.

JACKS FOR SALE.

Two fine Jacks, one four and the other five years old, large and likely sired by old Samson, and of the best Kentucky Bunnets; the best stock of the kind in the State. Address

B. C. EPPERSEN,

2v9-11a

Bear Valley, Colusa County, Cal.

NEW CROP OF BLUE GUM SEED.

GRASS AND CLOVER SEEDS.

FLOWER AND VEGETABLE SEEDS.

TREE AND FRUIT SEEDS.

OF EVERY DESIRABLE VARIETY AND OF THE BEST QUALITY; OFFERED AT WHOLE-SALE OR RETAIL, BY

GEO. F. SILVESTER,
SEEDSMAN,

No. 317 Washington Street,

24v8-tf

SAN FRANCISCO.

1874. GUIDE AND CATALOGUE 1875.
FREE.

To persons contemplating purchasing I will send my ILLUSTRATED, DESCRIPTIVE CATALOGUE and GUIDE to the VEGETABLE and FLOWER GARDEN WITHOUT CHARGE. It contains the most extensive and valuable list of



Flowering Bulbs, Roots and Plants, Semi-Tropical Trees, Ornamental Shrubs, Fruit and Shade Trees, etc., ever offered in this market. It tells how to successfully grow the Australian Blue Gum, the Monterey Cypress, Pine, etc., and the proper method of Cultivating Tobacco on this Coast.

My stock of seeds is in part my own raising and in part direct importations from the best European and Eastern growers, and is unsurpassed in all respects by that offered by any other establishment. 100,000 Australian Blue Gums and Monterey Cypress in boxes at from \$30 to \$50 per 1,000, raised at my own Nursery at San Rafael.

R. J. TRUMBULL,

Grower, Importer, Wholesale and Retail Dealer in Seeds, Shrubs, Trees, etc.

20v8-6in-16p

427 Sansome street, S. F.

M. EYRE, Napa, Cal.

Bronze Turkeys, Emden Geese, Brahmas, Houdans, LEGHORNS, and GAMES.

Black Cayuga and Aylesbury Ducks Bantams, etc.

Eggs, fresh, pure, true to name; well-packed so as to hatch after arrival.

ILLUSTRATED CIRCULAR AND PRICE-LIST FREE.

14v9-16p-tf.

REEDVILLE HERD.

PROPRIETOR,

S. G. REED, Portland, Oregon.

I have for sale, Shorthorns of the most approved and fashionable families; among them are a few one year old Bulls of great merit, the produce of Cows imported direct from England, and sired by the renowned Mantalini bull, GOVERNOR GENERAL, 10,156, A. H. B., Vol. X, p 175. Also on hand,

AYRSHIRE CATTLE,

COTSWOLD AND

LEICESTER SHEEP,

AND BERKSHIRE PIGS.

of the highest stender. For particulars apply to

S. G. REED, Portland, Oregon,

Or WM. WATSON, Hillsboro, Oregon.

1v9-9w-tf.

5,500 ACRES

Of the best portion of the old NOMELOCKE RESERVATION, in Tehama County, for sale very low; only five dollars per acre; one-third down, one-third in one year and one-third in two years, with interest at one per cent per month. Will be sold all together or in two parcels. This is one of the finest tracts of grazing land in Northern California; is abundantly watered by numerous perpetual springs and has two miles of the Elder Creek, a clear mountain stream. Its grass never fails from drought, and is of the best quality for sheep and has no clover burr. 800 acres of level plow land; timber for posts, fuel, etc. Enquire of ALLEN WILCOX, Los Angeles, or F. B. WASHINGTON on the tract twenty miles west of Tehama.

Subscribers who are troubled in getting their papers regularly from the P. O. should be particular to mention the name of the paper.

BREEDERS' DIRECTORY.

PARTIES DESIRING TO PURCHASE LIVE-STOCK WILL FIND IN THIS DIRECTORY THE NAMES OF SOME OF THE MOST RELIABLE BREEDERS.

OUR RATES.—Cards of six lines or less will be inserted in this directory at the rate of 50 cents a line per month. Payable quarterly.

CATTLE.

W. L. OVERHISER, Stockton, San Joaquin Co., Cal., breeder of Short-Horn Cattle and Berkshire Swine.

J. D. CARR, Gabilan, Monterey Co., Cal., breeder of Trotting Horses, Short-Horn Cattle, Thoroughbred Spanish Marino Sheep and Swine.

J. BREWSTER, Galt Station, Sacramento Co., Cal., breeder of Short-Horn Cattle.

MOSES WICK, Oroville, Butte Co., Cal., breeder of Short-Horn Cattle. Young bulls for sale.

A. MAILLARD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.

STANTON & POWERS, Sacramento, Cal. Choice Jersey Heifers at reasonable rates. Address L. C. Powers, Sacramento, Cal.

R. ASHBURNER, Baden Station, San Mateo Co., Cal., breeder of Short-horn cattle. Bulls for sale, from cows of choice milking strains.

SHEEP AND GOATS.

THOS. BUTTERFIELD & SONS, Hollister, San Benito, Cal. Importers and breeders of Angora Goats and Sheep.

N. GILMORE, El Dorado, El Dorado Co., Cal., importer and breeder of Angora Goats.

SEVERANCE & PEET, Niles, Alameda Co., Cal., breeders of Thoroughbred Spanish Merino Sheep.

MRS. ROBERT BLACOW, Centerville, near Niles Station, Alameda Co., Cal. Pure-Blooded French Merino Sheep for sale.

A. G. STONESIFER, Hill's Ferry, Stanislaus Co., Cal., breeder of Pure-Blooded French Merino Sheep.

LANDRUM & RODGERS, Watsonville, Santa Cruz County. Pure-Bred Angora Goats and Cotswold Sheep for sale.

POULTRY.

GEO. B. BAYLEY, Cor. 16th and Castro streets, Oakland, Cal. Imported Brahmas and other choice Fowls for sale.

ALBERT E. BURBANK, 43 and 44 California Market, San Francisco, importer and breeder of Fancy Fowls, Pigeons, Rabbits, etc.

M. EYRE, Napa. Bronze Turkeys, Emden Geese and other Fancy Poultry. Eggs in season.

Mrs. L. J. WATKINS, Santa Clara. Premium Fowls. White Leghorn, S. B. Hamburg, Game Bantams, and Aylesbury Ducks. Also, Eggs. 21v8-3t

Mrs. L. E. McMAHAN, Dixon, Solano Co., Cal. Bronze Turkeys now ready for sale from the best imported stock; also eight varieties of choice Chickens; Eggs in season can be purchased very reasonably.

C. W. WILSON, San Francisco. The largest and heaviest Bronze Turkeys the world ever saw. One pair, 19 months old, over 72 pounds now. I offer for sale extra large Toms, old or young; also Eggs. Correspondence solicited. Address C. W. Wilson, P. O. Box, 1874, San Francisco.

SWINE.

A. T. HATCH, Suisun City, Cal., breeder of Poland China Swine.

DAWSON & BANCROFT, U. S. Live Stock Exchange, 8 E. Corner 5th and Bryant streets, San Francisco. All kinds of Common and Thoroughbred stock always on exhibition and for sale.

LEA & PERRINS'

—CELEBRATED—

Worcestershire Sauce.

Declared by Connoisseurs to be the only good SAUCE.

Cautions Against Fraud.

The success of this most delicious and unrivalled Condiment having caused certain dealers to apply the name of "Worcestershire Sauce" to their own inferior compounds, the public is hereby informed that the only way to secure the genuine is to ask for LEA & PERRINS' SAUCE, and see that their names are upon the wrapper, labels, stopper and bottle.

Some of the foreign markets having been supplied with a spurious Worcestershire Sauce, upon the wrapper and labels of which the names of Lea & Perrins have been forged, L. & P. give notice that they have furnished their correspondents with power of attorney to take instant proceedings against manufacturers and vendors of such, or any other imitations by which their right may be infringed.

To be obtained of Messrs. CROSS & CO., San Francisco.

OAKLAND POULTRY YARDS

Cor. 16th & Castro Streets, Oakland, Cal.

A choice selection of Brahmas, Cochins, Houdans, Games, Leghorns, Bantams, Bronze Turkeys, and Ducks constantly on hand and for sale at reasonable rates. Eggs guaranteed to be fresh, true to name and to reach customers safely. Also two Imported Bronze Gobblers for sale; weight 38lbs; price \$75 each. Send for Illustrated Circular containing a full description of all the best known and most profitable fowls in the world, to

GEO. B. BAYLEY,

20v8-tf

P. O. Box 669, San Francisco.



Volume IX.]

SAN FRANCISCO, SATURDAY, JANUARY 16, 1875.

[Number 3.]

The Alfalfa Parasite:

It will be remembered by the readers of the *RURAL PRESS* that in our issue of August 15th and September 5th 1874, we gave descriptions of a parasite discovered by some of our correspondents on alfalfa growing on their farms. The interest aroused by these accounts was not confined to this coast, but extended to the Atlantic States, where alfalfa is increasing in popularity nearly as rapidly as in California. Among others who became interested in the matter was the editor of the *American Agriculturist*, who at once wrote to us, requesting specimens of the weed. In compliance with this request we obtained samples which we forwarded to him. An engraving was accordingly executed, giving a faithful representation of the weed as procured by us, and which was published in the *Agriculturist* for December, with a description which it will be seen agrees with that published in the *PRESS* on the first appearance of the weed.

We are indebted to the *Agriculturist* for the illustration referred to, which we give on this page of our paper, and also for the description of it, which is as follows:

Improved agriculture is of so recent a date in California, that but few of the pests in the way of insects and weeds that trouble the cultivator in the older States, have come to plague his California brother. Alfalfa or lucerne is one of the staples of California agriculture, and a weed that threatens the destruction of this crop, is a matter of the first importance. Notices of a particularly troublesome dodder have appeared in the California papers, and we are indebted to the kind attentions of our friends of the *PACIFIC RURAL PRESS*, of San Francisco, and of the *Sonoma Democrat*, for specimens, which have enabled us to examine the plant, and to make an engraving of it. Almost every one knows our common dodders, which hang their yellow or copper-colored, wiry stems over the bushes in the swamps of the Atlantic States. There are ten native species east of the Mississippi, several more west of that river, and about seventy species thus far known throughout the world, all of which, with their varieties, are admirably described in Dr. G. Engelmann's elaborate account of the genus. The dodders are all parasites; the seed germinates in the ground, and the stem attaches itself to some other plant; by means of numerous disks or suckers, it draws upon the plant for nutriment, and soon cuts itself loose from the root, and feeds wholly upon its unfortunate host. Some dodders live upon exogenous plants indiscriminately, while others prefer particular plants, or those of certain families; one confines itself to flax, which, besides the one in question, is the most generally injurious. One of our native species has been known to be troublesome upon young trees in nurseries. The dodder upon alfalfa, so far as we can determine from description, having no authentic specimens for comparison, is *Cuscuta racemosa*, variety *Chiliana*. The species is a very variable one, and between it and related species there is some confusion. The seeds of this were no doubt introduced into California with alfalfa seeds from Chili, the same as it was into Europe many years ago, where it was very destructive to lucerne, often destroying whole fields. The engraving shows the habit of the weed; when once fixed, it spreads and entangles the several branches of a plant, or those of neighboring plants; under this heavy draught made upon its life-blood, as we may regard the sap, the lucerne ceases to grow, and at length turns yellow, and dies from exhaustion. The *Sonoma Democrat* publishes an opinion that the dodder now so troublesome upon the alfalfa is a native species, but an examination of the specimens makes us quite sure that it is not. One not acquainted with the minute characters, by which the species are distinguished, might, from their outward resemblance, regard them as the same. At the lower left hand of the engraving the relative size and shape of the two seeds are shown, both of course magnified. The alfalfa seed is like a rather flattened, kidney bean; that of

the dodder is irregularly orbicular, and only about one third as long as the other. An ordinary magnifier will readily detect the presence of this or other foul seeds in the alfalfa seed. With this, as with other weeds, one important point is to avoid introducing it, and care in selecting the seed will do this. Where it makes its appearance the most prompt measures should be taken to prevent its spread. Cut the infested plants, and burn them, and do this before the parasite has matured its seeds. If the dodder has too full possession to allow this to be done, then the plan followed in France, (where a dodder, and probably the same species, is destructive,) may be adopted. Straw is laid in abundance among the plants in a dry

Cheap Boxes for Plants.

The cost to the amateur of handling and potting plants in the early stages of their growth is trifling; but to the nurseryman, who carries thousands of horticultural nurslings through from one period of growth to another, the expense of boxes and pots is considerable. We learn, however, that some of the nurserymen of Capay valley have adopted a device which almost does away with this expense. One of them, while on a visit to Swan & Co.'s Union Box Factory had his attention called to a method by which boxes may be formed by

An Improved Harrow.

Frank Donohue, of Mayfield, Santa Clara county, has recently patented through the *SCIENTIFIC PRESS* Patent Agency an improved harrow, which we illustrate on this page. It is so constructed that by its natural hanging and draft, without extra weights, the outer edges will keep down to their work and preserve as nearly as possible a uniform level and penetration of the teeth. It is usual to employ a weight on each wing of a sectional harrow to keep the edges from buckling upward, but by the improvement of Mr. Donohue the harrow is so constructed that the edges will keep down without a weight.

Two hinged sections of a double harrow are made, each being rhomboidal in shape and consisting of as many parallel timbers as desired to hold the teeth. These timbers are united together by a transverse timber near each end. At one end of each section a partial parallel timber is secured, so that when two rhomboidal sections are placed together in the usual way of uniting the two sections of a harrow, the two partial timbers of the two sections will stand in the same line, and will, in effect, be a divided timber in the middle of the harrow. The hinge straps or plates are secured upon the parallel timbers so that the hinges at the opposite ends of the harrow will come on opposite sides of the divided timbers. If a line should be drawn through the two hinges it would cut the harrow into two trapezoidal figures, thus causing the weight of the corners to be nearly at right angles to the breaking line or joints of the two hinges, so that their superior leverage, owing to their greater distance from the hinges, will cause them to keep closely down to the ground when the harrow is working.

The double-tree is attached to the harrow so that its middle will be in a line with the two hinges, and in order to accommodate it to the harrow, the inventor constructs it in two parts and hinges them together as shown. The draft will, therefore, be in a direct line with the hinges, and consequently the sections will have equal rise and fall, and as the diagonal corners are further away from the line of draft than any other portion of the harrow, they will keep close to the ground.

THE REASON WHY.—A good weekly newspaper printed on this coast is comparatively cheaper at \$4 a year than one published in the Eastern States at \$2.50 per annum. And why? Because the population within range of Eastern publications is a hundred fold larger than the population of this coast. Because they can reasonably expect ten times as many readers. But there is nearly ten-fold more advantage to be derived by Californians from reading a first-class agricultural journal worked up here in this new field of industry. The methods of farming are not so well known or established here as in the older States. Discoveries are ten-fold greater here. There is more to be learned here. There is more being learned here. There is surely greater need of supporting and reading agricultural papers in California. We have more subscribers, already, in proportion to our population, we dare say, than any other farming paper in the Union. Yet we need more. We ought to have more. We wish to make it better. We wish to make it profitable. It has not been yet.

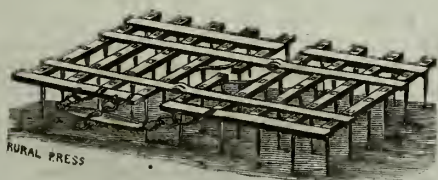
AID FOR THE NEBRASKA AND KANSAS SUFFERERS.—As we go to press arrangements are being made for a meeting of the citizens of San Francisco to be held at the Merchants' Exchange, on Wednesday afternoon, Jan. 13th, "to take such measures for the relief of the sufferers as their generosity and humanity may prompt. The call for the meeting is signed by a large number of the most prominent and influential citizens. We hope and confidently believe, that much good will result from this meeting.



A CALIFORNIA WEED—DODDER UPON ALFALFA.

time, and then set on fire; the sudden flame destroys the parasite, but does not materially injure the alfalfa, which starts from the roots, and the stems, that escape injury by the fire.

RAISE A PINEAPPLE.—Girls would you like to raise a pineapple, to have a genuine pineap-



Donohue's Improved Harrow.

ple for a house plant? If so, take the delicious pineapple which you are going to eat, and cut off the stem and tuft of leaves that forms the apex of the fruit; don't be stingy with your fruit, cut off a half inch or more of the fruit with it. Set this in a box of damp sand and keep it in a warm place, and keep it moist. In a few weeks it will put out roots and you will have a veritable pineapple plant. The stems sometimes found at the base of the fruit may be made to grow in the same way.

simply folding a scored piece of board so as to form a box with four sides, the ends lapping, and requiring nothing but a string tied about it to constitute a box sufficiently strong for nursery purposes. When the plant is to be transferred from this to a larger box or to the garden, by simply cutting the string and unfolding the sides, the plant is disengaged without disturbing the earth by sliding.

Some of these scored pieces were recently examined by us at the above named factory. They were about a foot in width and long enough to form a box 4x4 inches. This is to be cut into three sections; each being 4 inches square; though the size, of course, can be varied; and being only the thickness of the common strawberry box they can easily be cut into sections with a pocket knife. The factory furnishes these boards, scored and ready for folding, at one cent each. Thus the purchaser has the material for three boxes at the cost of one cent; and in a condition as convenient for transportation as a package of pasteboard.

SALE OF THE GLEN FLORA HERD.—The proprietor of this celebrated herd, C. C. Parks, of Waukegan, Ill., proposes to sell nearly his entire stock of valuable animals, on Wednesday, April 17, 1875, as he intends to give his undivided attention to the management of the Glen Flora mineral springs on his farm.

CORRESPONDENCE.

[The RURAL PRESS, in opening the columns of this department to its correspondents, does not desire to lay before its readers anything which is not in keeping with its character and position as an agricultural and family paper. Facts are always thankfully received; and suggestions and matters of opinion on subjects connected with agriculture are also acceptable; though correspondents are to be understood as speaking for themselves and not for the PRESS.]

A Chapter of Tule History—Staten Island.

EDITORS PRESS:—The season of 1873-4 is completed and its lessons of success or failure are ready for our instruction. There are many tasks and many learners in this school, and each learner has his own task. The present theme is a chapter from the experience of the tule lands of our State. The swamp lands generally, of California, have been growing in favor within the past few years, and all information on the subject excites attention. Unfortunately for the very object aimed at in recent publications exceptional facts and circumstances are insisted upon too much as if of common occurrence. It must be noticed, as prefatory to every remark, that experiment has not yet given sufficient data from which to deduce a certain rule. Our chief concern still is to gather and compare data, and such is the purpose of the writer of this article. The remarks are also intended to be confined to one district of swamp land and will detail briefly the history of that district.

Staten Island.

The tract in question is formed by the forks of the Mokelumne river just before that river unites with the San Joaquin, and is also within easy reach of Sacramento river, either across a narrow neck of land, or farther, by means of the many streams that link this well-watered region. It lies in Sacramento county and from Walnut Grove Post-office, which is one mile from the head of the island, a good road extends 30 miles through a thickly-settled and fruit-bearing country to Sacramento city. Like all other fresh water tide lands, Staten island, in its natural condition, was a swamp over which the higher tides flowed, keeping it continually wet. As would be expected, the banks of these lands are usually somewhat higher than the interior, and the water flowing in at a spring tide is kept within, as in a basin, so that there are usually several inches of water always on the land back from the shore. In very dry seasons, however, the lowness of the river lessens the frequency of the tidal overflow, and this, with the large evaporation, renders the land dry enough for pasturing stock. At such times in the past, large herds of cattle and bands of sheep have been pastured on the tule lands, without any reclamation or leveeing whatever, and considerable quantities of the wild grass have been cut and baled under like circumstances. This grass has a bayonet-shaped blade and grows from a strong root and stock, branching out a few inches from the ground. It prefers a soil composed almost entirely of vegetation, in which it thrives luxuriantly, attaining a height of four or five feet. Wherever the quantity of sediment increases in the soil, the tule, a tall, round rush, often ten feet high, becomes more common. It is this plant, said to be so termed by the Indians, that gives name to the lands under consideration. The first settlement on the tule lands were made along the Sacramento river and for a long time were confined to the high ridge of bank land formed by the sediment which had accumulated from the winter floods. This bank land has been and still is very valuable as orchard and garden land. The settlers in time discovered that the back land was good for pasture and also that the soil was chiefly of vegetable formation—in many cases a fair quality of peat—and that when dried it would burn in the ground. They also found that any crops planted in the ashes of the burnt land would grow and yield remarkably well. In this way, the value of the tule lands was demonstrated upon a small scale, and capitalists, thus assured, have undertaken the problem upon a large scale, and one phase of that problem is here presented in this account of Staten island.

The Work of Reclamation

Was begun in June, 1872. Eight dams were put in as many sloughs, without the aid of piling, except in the instance of the largest slough, which also was the first dam built. Had it been left to the last it could likely have been completed without piling. The great difficulty in the way of building dams, and levees, too, on the tule lands is the lightness of the earth. In many cases the sods cut from the ground float. Such material should be avoided entirely and heavier sought. This can always be found in the vicinity of the sloughs, and, with the judicious use of light brush, a substantial bond can be made.

The largest portion of the leveeing was done by a steam dredge in charge of W. C. Sullivan. This machine digs a ditch twelve feet wide and

four and one half feet deep, somewhat after the Osgood plan, except that the bucket is attached to a movable frame on a turn-table, which turns to the right or left to dump the earth. The whole apparatus is operated on a scow which floats in the ditch it digs, and is drawn up to its work by means of a capstan and anchor ahead. It was claimed for the machine that the large mass of a full bucket, about one cubic yard, dropped six or eight feet while soft, would make a more compact levee than the small sods cut out, handled and laid in the levee by Chinamen. The experience of the past winter seems to confirm this claim. The machine levee was indeed broken in a number of places; but the embankments were small, and in no case was the earth carried away. The expense of excavation is also less than by Chinamen; but unfortunately the machine cannot change the depth and width of its ditch, nor vary its cast of the earth, and hence, being confined to a uniform ditch, the field of its operations is very limited. It is a matter of great regret that steam dredging apparatus has not been employed to a greater extent. Both on Staten island and on other tracts of tule land large mud flats have been formed by sedimentary deposits brought down by the winter rains, and this material can be put into levees at a reasonable cost by steam dredges. But be the cost of it double or treble that of the peaty soil of which Chinamen build levees, still it would be cheaper than the peat. It has required the loss of several large crops and the overflow of valuable lands to teach the reclaimers of tule lands the absurdity of erecting barriers against water of material that might float.

The first step toward proper reclamation was in the use of the earth taken from the river bank on the outside of the levee. There the sediment already spoken of had accumulated to the depth of 18 inches, though considerably mingled with the roots of vegetation, and the sediment and roots combined make a very substantial levee. This method was first tried on Staten island, in the spring of the year just passed, in the face of many prophecies of evil results, founded mainly on the bad effects of cutting ditches on the outside of the levee on Sherman island. On that island breaks in the levee and serious cracks in the soil under it have occurred, but the experiment on Staten island has been eminently satisfactory, and the example there set is being followed on other similar tracts. The earth taken from the outside of the levee is a yellow loamy clay, and the embankment built of it was found, after six months' usage, to have shrunk and settled very little compared with the previous levee of peat, and a large percentage of what loss did occur was, doubtless, owing to the foundation upon which the addition was built. Nor was there any break in the levee after the exterior soil was added, although the levee was subjected to the tides of June, the largest of the year. After this satisfactory showing it remains now but to take one step further, and with a steam dredge get a material entirely free from vegetable matter, and furnished in unlimited quantities on the margin of the land to be reclaimed, and with it erect on an unbroken sod, effectual walls against the inroads of floods.

Cultivation.

The problem of the tule lands now turns wholly upon their reclamation, and involves mainly the substance of which the levees are built. There is no longer any question regarding their productiveness. All who know these lands are satisfied in this respect. Even those who have been disheartened by the loss of their crops bring no charge against the soil, but commend it saying: "The land is good enough if you only keep the water off." The soil is composed mainly of roots and decayed tules; grass and other plants, and consequently is generally nothing but a peat bed, varying in depth from 5 to 30 feet. The surface kept dry in the summer will burn in the fall to the depth of several inches, and in the ashes of the soil the crops are planted. In the fall of 1873 Staten island was fired, but owing to the short time the levee had been completed the burning was not extensive. Planting was begun by the three or four settlers in January, 1874. Wheat was first sown until about the 1st of March; after that common and chevalier barley were sown until the 15th of May. Most of the crops were put in with sheep, which were driven compactly over the burnt land after the seed had been sown. The remainder were harrowed in. The planting of the crop was found to be comparatively light work whether with sheep or harrows and at a cost of from \$2 to \$4 per acre, including the seed. The chief trouble was from the miring of the horses. Various appliances in the way of horseshoes were resorted to, the best of which was an iron shoe with an exterior ring attached to it so as to receive the horse's weight. With such a "tule shoe" teams could get over the ground with considerable ease.

Harvest.

Seed-time being past, harvest began to be looked for. The grain sprouted and looked well; the heads appeared and nodded in the wind and gladdened the eye of the farmer. Then, when the fields were whitening for the harvest, a serious evil threatened in the shape of red rust. The wheat and barley were both affected; but it was noticed that the late sown grain suffered most. Wheat sown previous to the first of February escaped almost entirely without injury, and the later sown resisted the rust much better than was expected when it first appeared. It was thought also that the continued wet weather and late high water had

as much to do in causing the rust as the late sowing. Early sowing, however, seems to be successful in any condition of weather, and a remedy in case of a very wet season. When harvest came, crops of undoubtedly large yield stood ready to be gathered. Good judges estimated the yield from 40 to 80 bushels per acre. Actual experiment found samples that produced, one, 77½ bushels per acre; another, 58½ bushels per acre, both of wheat. Elated by these large figures, the farmers, inexperienced on tule soil, declined contracts which they thought too high, and undertook the work of harvesting themselves. On account of the softness of the ground it was thought that headers would be too heavy, and reapers were employed instead to cut the grain. In most cases the grain lay on the ground for several weeks after it was cut, and was at length loaded, loose, into wagons by Chinamen and hauled either to the stack or to the threshing-machine. The tires of the wagons were two and one half inches wide, and the ease with which they, and also the reapers got over the soil was quite conclusive that headers might have been used, and thus saved the large expense of so much handling of the grain in the field. A large portion of the crops was not harvested till long after they were ripe, and, in consequence, the grain fell down so that the reapers could not cut cleanly, but left on the ground as much as one-fourth to one-half of the crop. Headers with their lifters would have prevented this serious loss.

The Yield.

Notwithstanding the defective harvesting, the yield was very good. The land was cultivated in scattered tracts, and no exact measurements could be readily made; but, estimated by the quantity of seed sown, there were about 1,000 acres—450 in wheat and 550 in barley. The figures taken from the threshers' accounts show, in the aggregate, a yield of 5,800 sacks of wheat and 8,400 sacks of barley. The average yield per acre was, consequently, thirteen sacks of wheat and fifteen sacks of barley or, by measurement, twenty-nine bushels of wheat and thirty-four bushels of barley. While these figures show a good yield, they do not show the entire production of the crops. In addition to what was left on the ground, one large stack of wheat was burned up and a very considerable quantity of barley was destroyed by the early rain which overtook the late threshing. It is very safe, therefore, to say, that one-fourth of the crop was lost, and the true average yield would be represented by thirty-nine bushels of wheat and forty-five bushels of barley per acre. A crop of wheat cut for hay yielded about three tons per acre. A number of acres of Indian corn were planted, but not being cultivated after the planting nothing came of it but promises of an abundant yield in case of a proper cultivation.

The Coming Season.

Such is the issue of the first year's crop on Staten Island. While it did not fulfill the sanguine expectations of the farmers, still the result is quite satisfactory. The defects and losses were due mainly to inexperience on new ground, and were no more than what should have been expected in an untried field. Indeed it is a matter of surprise that the outcome was as fortunate as it was. But now, since experience has been gained, another year will see better cultivation, better harvesting, and a far better yield. A larger force, with vastly increased facilities, undertake the coming crop. Ten farmers are already busily engaged upon the island, and they will cultivate not less than 4,000 acres, mostly in wheat and barley. Excellent dwellings and very substantial barns, just completed, add largely to the comfort of the residents and change the spacious area into a well-settled neighborhood. The levee is being enlarged, notwithstanding the successful resistance to the severe test of last winter's waters, as it is the determination of the settlers to make "assurance doubly sure." December has passed without rain, and a prosperous season is confidently expected. Should these reasonable expectations be fulfilled, the tule lands will, during the coming season, take a great stride toward that high position they are destined to hold among the richest agricultural districts of our favored State.

L. C. McAFEE, Engineer.

Staten Island, December 31, 1874.

[The above letter was intended to be published in the *Bulletin* and *RURAL PRESS* simultaneously, but its appearance in the latter was unavoidably delayed for one week.—Eps. PRESS.]

Hint to Dr. Gibbon.

EDITORS PRESS:—This week's *RURAL* contains a very valuable article from the pen of W. B. Gibbon. It gives very plainly the information I have been in pursuit of for some time. That is how to plant and raise the eucalyptus. But he omits one very important item in connection with the subject, that is irrigation, or the amount of water required, if any. I would infer from his article that they did not require any, as he speaks of planting extensively around large ranches, and as we all know but few of them have facilities for irrigation. If he will please answer this through the *RURAL PRESS*, I, for one, will be very thankful.

P. A. RAYNOR.

San Bernardino, Jan. 8, 1875.

Berryessa Valley and Yountville.

[By our own Correspondent.]

EDITORS PRESS:—Well, Christmas is past—but not forgotten—for it has been a rich harvest of gifts to youth in all parts of the country. The quiet little valley of Berryessa, where I spent my Christmas eve, kindly remembered the children with a community tree, rich with gifts, aiming to make every child merry. This kind regard, though not always most skillfully managed, yet speaks something of the true spirit of benevolence. We perhaps borrow the tree idea from the Germans, but if so, to improve on it by taking it from the family to the public hall and there invite all to come.

To the stranger, even this evidence of community feeling gives him a higher estimate of the moral worth of the people, for it is not easy to over-estimate the moral effect of these little efforts to exemplify "love, peace and good will toward men."

Having seen but a few miles of the valley, and that lying the highest up, I can speak of it only to say, that, if the lower is equal to the higher portion, it is beautiful for situation and is the joy of the whole population; having a rich alluvial soil, being about a mile in width, with fine protecting hills on every side, gently sloping back, and contains excellent farming and grazing lands, with a good live farming population, many of them taking a daily paper and more of them taking the *RURAL PRESS*.

Leaving John Lawley's on Christmas morning, we followed up the mountain road along the banks of Patah creek. Not able for a long time to cease thinking what a climate? Gardens being planted, peas almost ready to blossom and yet Christmas season; mid-winter! Eight miles brings us to

Pope Valley.

Which is in itself a novelty of a valley; being filled full of little and big hills, and all pretty well timbered. Good crops of hay and grain being raised right under the oaks, and on many of the hill sides. But it is not my present object to say much of the agriculture of the valley; but the general appearance in that respect is very prosperous. Their school-house being some time since burned, they made no general gathering at one place; but the whole valley seemed to abound in generous provision of festive luxuries, and their manner of dispensing them was calculated to make one desire a prolonged stay among them. They seem to be some of the same good people we left away east of the Rocky mountains, but now well settled, with large, intelligent and happy families, mostly born in this new State. I find in Pope, as in Berryessa valley, the *PRESS* is largely taken and appreciated highly.

Among the old settlers are J. A. Andisale, keeping an excellent variety store at the head of the valley, adjoining which Nelson Howe's smith shop, which furnished a splendid help to Netty's tender feet, for which he has her thanks. T. A. Van, Edwin Kean and a B. Wallace are among the old representative farmers of this valley.

Yountville, Napa Valley.

Occupies a splendid position as a suburban village, eight miles back from Napa City, on the line of the Napa Valley railroad, surrounded by splendid farm, fruit, vineyard and grazing lands.

A more thriving, stirring farm population is not found in any section of the State. Climate, soil, seasons, with their nearness to market, makes success almost a fated result to those fortunate enough to get a location there.

The Yountville ranch, of near 2,000 acres, has lately been purchased by Messrs. St. Johns and Scofield, whose first class dairy products will soon prove that Napa county can furnish first-class cheese and butter. They have splendid samples of tropical trees, plants and fruits. Mr. Scofield plucked a branch bearing 21 fine oranges from a tree growing out in open yard. These are gentlemen of culture and ability and are an acquisition to the farming community.

It is difficult in such a district to mention any as thriving and live farmers without doing injustice to many who are equally worthy of such mention; or I would mention Mr. George Linn, T. L. Grigsby, W. T. Ross, and others. The town of Yountville is the center of mechanics and merchants who seem very thriving.

The Grangers are just completing a large two story brick edifice for stores, with ample hall above. They number about 100 members, and nearly all are taking stock in the State Grange incorporation.

The general outlook for this portion of the county seems in every respect encouraging.

C.

PAPER MANUFACTURE.—Upwards of one hundred firms are engaged in the manufacture and sale of paper in Philadelphia, the first established in the country being the Rittenhouse Mills, where the old Continental paper money was made. At the present time all our bank note and fractional currency paper is made by the old and wealthy firm of J. M. Wilcox & Co., of that city.

SHEEP AND WOOL.

The Wool Clip of 1874.

The following semi-annual wool circular, issued by E. Grisar & Co., of the San Francisco Wool Exchange, furnishes the most available matter at hand for the Sheep and Wool department of our present issue:

The spring clip was above the average of several preceding seasons in staple and condition. Southern wools especially were remarkable for their good condition and comparative freedom from burr. In the wools from other sections the improvement was less marked. The fall clip has not been equal to that of 1873. The condition is poorer in consequence of sheep farmers having bred more fine heavy wool than formerly, which naturally retains more dust than open wool of a coarser fiber. The fact, also, of valley lands having become too valuable for sheep-raising has driven the flocks into the mountain districts, where more seeds are found, and consequently very little fall wool is now free. The circular further says: The demand throughout the year has been for wools of good staple. Southern wools in the spring met with ready sale, because the length of the staple was thought to more than counterbalance the burr they contained. Short-stapled fine wools are the last to move, as they are only suitable for a few kinds of manufactures. The wide-spread introduction of Merino blood into the flocks of the State is now making its effect apparent in the increased amount of short, fine, heavy wool. Such wools are not suitable for fine goods, because the staple is too short, and they are usually defective. For common goods they are too expensive, as the shrinkage is heavy on account of the quality, and the staple is also too short. Long stapled wools of the medium grade are in demand during the spring and fall, and it is to the production of such descriptions farmers should turn their attention if they want to have their wools meet with ready sale. The agitation now going on for a revision of the tariff on wools and woolen goods should cause wool-growers to pay attention to the wants of consumers. As the wool product of the State increases, the time in which it is disposed of becomes longer, so that in future this market will seldom become entirely bare. The stock of fall wool in store at the beginning of the year was unusually large. An active demand, which continued during January and February, was sufficient to take nearly all of it, so that when spring wool began to arrive it came upon a bare market. The first receipts of the spring clip were so superior to the preceding year in condition, staple, and freedom from defects, that they were quickly taken at prices considerably above the rates of the year before. The scarcity of domestic and foreign wools in the Eastern markets turned the attention of consumers to California for supplies until other domestic wools should arrive. The presence of an unusually large number of Eastern buyers caused an active competition, and prices gradually advanced throughout the season. Although the production was larger than ever before, and was brought into market more quickly than usual, there was no accumulation, except from the inability of the packers to forward the wools. The shipments East during April and May largely exceeded that of any previous year during the same time. By the middle of June very little wool remained to be marketed.

Fall wools began to arrive in September, and at first met with ready sale. The market gradually advanced to the point of restricting operations, while at the same time the condition of the Eastern markets was unfavorable. Wools began to accumulate, and this continued until stocks were larger than ever before. During the past month a demand has sprung up and supplies have been somewhat reduced, but they are still greater than usual.

The large amount of fall wool this season has astonished everybody. It shows that the farmer, expecting good prices, has shorn every sheep, and that is the reason that our fall wool this year has given so little satisfaction; the bulk of it being short in the staple, full of earthy and vegetable substances, thereby rendering it unfit for most purposes in manufacturing. In addition to this fact, the failure of some of the manufacturers who used most of these wools will account for the large quantity of fall on hand at this date. It is therefore established beyond a doubt that it behooves our wool-growers here to shear as little fall wool as possible, and to pay more attention to staple and condition of the spring clip, as good stapled and well-conditioned wools find a ready market at all times, while short, faulty wools are only taken up when nothing else can be had.

Australia and South America raise better fine wools than California, and can afford to sell their productions at lower rates. Wools of medium quality are in better demand and are in smaller supply. To raising such descriptions the grower here should turn his attention; as land becomes more valuable it will pay the farmer to grow only such descriptions as will sell readily and bring a good return.

The condition of Oregon wools was better than usual, and they were taken readily at full rates.

Wool Production.

The receipts at San Francisco in 1874 were as follows:

	Bags.
January.....	1,226
February.....	429
March.....	967
April.....	15,622
May.....	32,982
June.....	7,483
July.....	3,224
August.....	3,607
September.....	13,803
October.....	23,873
November.....	8,782
December.....	921

Total bags.....	112,922
Of which there was spring wool.....	61,112 bags
Spring wool shipped direct from interior.....	1,908,116 "
Bought by country factories.....	425,000 "

Total spring production.....	21,062,276 "
There was fall wool received 61,810 bags.....	16,371,970 "
Fall wool shipped direct from the interior.....	593,545 "
Bought by country factories.....	120,000 "

Total fleece wool.....	38,147,761 "
Pulled wool shipped from San Francisco.....	1,211,000 "

Total production of California.....	39,358,761 "
On hand December 1, 1873, about.....	3,000,000 "
Received from Oregon.....	1,721,700 "
Foreign wool received.....	574,340 "

Grand total.....44,654,821 "

Comparative Production

	1874.	1873.	1872.
Spring.....	21,062,276 lbs.	18,049,519	14,550,980
Fall.....	17,095,505 "	12,905,050	8,554,438
	38,147,781 lbs.	30,954,569	23,105,468
Oregon.....	1,721,700 "	1,666,300	1,175,600
	39,869,481 lbs.	32,621,469	24,281,068

Exports.

The exports of domestic, foreign, pulled and scoured wools during the past year were:	
Per rail, inclusive of shipments from the interior.....	22,020,228 lbs.
Per steamer, inclusive of shipments from the coast.....	2,117,750 "
Per sail.....	950,722 "
	26,088,701 "

Value of exports.....\$8,182,000
On hand Dec. 31, 1874, 20,832 bags.....6,458,000 "
The weights of receipts and exports are gross. The usual tare of bags received is about three pounds each; on pressed hales shipped, 14 to 16 pounds each. Fully two-thirds of the wool graded during the last year is A1. The balance is A2 and B. This proportion has been unchanged for the past five years.

Ruling Prices for Twelve Months.

The following table compiled from the Circular shows the ruling prices in the wool market in San Francisco and New York:

	San Francisco, 1874.	New York, 1874.
MONTH.	Spring.	Fall and Lambs.
January.....	Nominal.	19 to 21 26 to 32 22 to 26
February.....	Nominal.	19 to 21 26 to 32 21 1/2 to 26
March.....	Nominal.	26 to 31 21 1/2 to 26
April.....	21 to 25	Nominal. 26 to 31 20 1/2 to 25
May.....	21 to 27	Nominal. 26 to 31 20 1/2 to 25
June.....	22 to 23	Nominal. 27 to 32 20 1/2 to 25
July.....	19 to 25	Nominal. 26 to 33 21 to 25 1/2
August.....	20 to 22	Nominal. 26 to 33 21 to 25
September.....	Nominal.	18 to 21 26 to 32 21 to 25
October.....	Nominal.	18 to 21 26 to 32 20 to 24 1/2
November.....	Nominal.	15 to 18 25 to 31 19 to 24
December.....	Nominal.	15 to 17 24 1/2 to 30 19 to 23

The above is for wool not burry. Exceptional lots, as to staple and condition, brought higher and lower prices than above given. There is a wide range between choice long stapled bright clips and short and wasty ones. It is a fact to be regretted that the burr is spreading, and this year the wool, spring and fall, is more affected with it than at any time hitherto.

THE SWINE YARD.

Choosing a Berkshire.

Pure Berkshire hogs should be jet black in color, with a thick coat of fine black hair, but choose one with coarse hair rather than one that is short of hair. White is only allowable on tips of ears, feet and legs, face and tail, but not too much white, as they are always a black breed, and plenty of hair denotes a good constitution.

There is no such thing as a white or spotted Berkshire hog, and the men who get up such stories to sell mongrel stock are swindlers, and ought to be sent to prison.

Choose a Berkshire with short prick ears, and as short a face as possible, with a broad back, well over the hams. It is much easier to find them broad over the shoulders than the hams, and by all means they should be deep in the heart place (from top of back just behind the shoulder level) and smooth all over, in fact as near a hewn block as can be.

In comparing the merits of breeding the various kinds of fine stock, we invite the attention of the reader to the following facts: Many men who would willingly give \$1,000 for a fine horse or cow, or a pair of sheep, (and very properly, too), cannot see why a hog should be worth from \$100 to \$500, which would be the cost of importing a fine one. From a mare costing \$1,000, you have a chance of a foal in a year, but often once in two years, and after two or three years' attention and feed, if no accident occurs, you may if fortunate get from \$500 to \$1,000 for the colt. The cow and sheep will produce their stock a little faster, while a sow old enough to breed in one year's time will with proper care and at half the expense, produce from 12 to 20 pigs, and you need not trust to selling breeding stock, for provided you have a respectable farm, the first cost will be repaid you many times over, in the saving of food, extra price for fine pork, etc., besides the pleasure you would take in improving the stock of the country, at the same time you are adding to your own wealth. The loss occasioned to the United States annually, through feeding common hogs, amounts to millions of dollars that might feed thousands of people and otherwise enrich the community.—*American S. and P. Journal.*

Remedy for Lice in Swine.

Hogs that are kept clean and in good health will seldom be troubled with lice, since these parasites do not generally breed upon animals that are thriving. When hogs are found to be so infested, the pens and sleeping places should be thoroughly cleaned and whitewashed with lime wash in which crude carbolic acid has been dissolved. Then wash the animals with very strong soap-suds in which a good quantity of crude petroleum has been mixed, scrubbing them thoroughly. Furnish them with clean bedding, and a warm but well ventilated place in which to lie.

If out of condition, give to each full-grown hog two ounces of Epsom salts, in a warm mash of meal and bran and then give one tablespoonful of sulphur, and what saltpeter will lie on a dime, each day, in a wash, for three or four days.

Then take of train oil one pint; oil of tar and spirits of turpentine, each two drachms; naphtha, one drachm; mix with as much flowers of sulphur as will form a moderately thick paste; and rub the animals with the mixture after they have become dry from the previous

washing. Keep the animals dry, and, the third or fourth day, wash again with strong soap suds in which a little soda has been dissolved; and it will be well, at this time, to give the pens and rubbing places another coat of the wash. Change the bed often, and, if the first application to the skin does not suffice, anoint the second time, or use crude petroleum and again wash at the end of two days.

This, with cleanliness, will not only destroy lice, but even mange, which is the work of a minute insect *Acarus scabiei*, which burrows just beneath the cuticle or scarf skin.—*Western Rural.*

A MAN on Long island, famous for his hogs, was asked what was the secret of his success. He answered: "I always choose a good-natured pig. Those that when they eat are constantly running from one trough to another and knocking their snouts against the next pig I sell to my neighbors, who don't know better than to buy such troublesome animals, while my contented pigs get fat."

BEES.

A Paradise for Bees.

A correspondent of the S. F. Bulletin writes thus sweetly of the bee pastures about Shasta:

"The Shasta woods are full of wild bees, and their honey is exactly delicious. At least such was the quality of my samples, and no wonder, inasmuch as it was in great part derived from the nectar bells of a huckleberry bog by bees that were let alone to follow their own sweet ways. The hive was a living pine tree, and the distance to the honey bells was only a moment's buzz. Bees themselves could hardly hold the conception of a more honeyful place—honey-bog to left of them; honey-bog to right of them; blooming willows for springtime; golden-rods for autumn; and beside a that and a that, miles of acres of buttercups and columbines and rosy chaparral. Regarding Mount Shasta from a bee point of view and beginning at the summit, the first 5,000 feet is clothed in summer with glaciers and rags of snow, and is, of course, almost entirely honeyless. The next 1,000 feet of elevation is a brown zone tufted and matted with bush penstemon and bryanthus. Next comes the silver-fir zone, about 2,500 feet in height, containing few sweet flowers, but rich in honey-dew and pollen. Next the zone of honey-bearing chaparral or Shasta heather, forming the smooth, sunny slopes of the base. This last is six or seven miles wide, and has a circumference of more than 70 miles. Companies of spruce and pine break across it in well-watered sections; yet, upon the whole, it is remarkably regular, and contains all the principal honey-grounds, of the mountain.

The formation of the Shasta bee lands is easily understood. Shasta is a fire-mountain, created by a succession of eruptions of ashes and molten lava, which, pouring over the lips of the craters, layer over layer, grew outward and upward like the trunk of an oxogenous tree. During the glacial period the whole Shasta cone was capped with ice, which by erosion degraded it to some extent and remodeled its flanks. When at length the glacial period began to draw near a close the ice-cap was gradually melted off around the bottom, and in receding and breaking up into its present condition, deposited those irregular heaps and rings of moraine matter upon which the Shasta forests are growing. The glacial erosion of most of the Shasta lavas gives rise to soils composed of rough boulders of moderate size, and a great deal of light, porous, sandy debris, which yields very readily to the transporting power of running water. An immense quantity of this finer material was sorted out and washed down from the upper slopes of the mountain by an ancient flood of extraordinary magnitude, and redeposited in smooth, delta-like beds around the base. These form the main honey-grounds. The peculiar vegetation for which they were planned was gradually acquired, huckleberry bogs were planted, the seasons became summer, the chaparral became sweeter, until honey distills like dew. In this glorious honey zone the Shasta bees rove and revel, clambering in bramble and huckle bloom, ringing and singing, now down among buttercups, now out of sight in the rosy blossoms of the buckthorn. They consider the lilies, and roll into them; and like lilies they toil not, for bees are run by sun-power, just as mill-wheels are by water-power, and when the one has plenty of water and the other plenty of sun they hum and quiver alike.

I have often thought in bright, settled sun weather, that I could tell the time of day by the comparative energy of bee movements. Gentle and moderate in the cool of the morning, gradually increasing in fervor, and at high noon thrilling and quivering in wild sun-ecstasy.

Bees are as directly the outcome of bright light as flowers are. Bee death and flower death are also alike—merely a sun-withering and evaporation.

Shasta bees appear to be better fed than any others I know of. They are dainty feeders and enormously cordial withal. Mint moths and humming-birds seldom set foot on a flower, but reach out and suck through long tubes as through straws; but bees hug and clasp and rub their blunt countenances upon them like round, awkward children upon their mothers."

THE DAIRY.

"The Cow Theory."

Speaking of the cow theory—that is, that a man with five acres of land can maintain himself, his family and his cow—a writer in the *Farmers' Magazine* for last month, has the following:

"On Sir Baldwin Leighton's estate in Shropshire, Eng., pauperism is almost exterminated by means of the cow, it being the rule rather than the exception for a laborer to have sums varying from £20 to £80 put by in the savings bank, out of the proceeds of the sale of butter. I have seen the books with the sums entered to their credit. Most cottages have two or three small fields attached to the holding, mostly laid down in grass. The cow, however, is only a second string to the laborer's bow, and does not in any way interfere with his giving efficient service to the farmer, as the cow can be looked after by the wife who makes the butter and sends it to market by the carrier."

We have frequently called attention to the great boon a cow is to the poor man, and the large profits of a good dairy. This especially the case where only a few cows are kept and are well cared for.

A friend of ours, with three grade short-horn cows, has realized no less than \$90 from the product of each cow in a single season, besides the milk and butter used in the family. But these favorable results depend upon two conditions, one or both of which we frequently see overlooked or disregarded, to wit: First, That we have a good cow—good in form—that a profitable disposition may be made of the carcass for beef, when the cow is no longer wanted for the dairy, and a liberal and steady milker; it is incomprehensible that poor cows should ever be used, when good ones can be obtained at so small an advance on the common price. And this is especially true where feed is high and the animal is kept with a view of supplying milk and butter for the family or market. Indeed, inferior cows should not be kept for any purpose, but should be slaughtered for beef as soon as their inferiority is discovered. To keep an ill-formed cow or a poor milker, for a breeder, is even worse economy than for the dairy, as in this way we perpetuate and multiply unprofitable stock.

The second condition for success with the dairy cow, is that she have plenty to eat and the best and kindest treatment. All farmers understand the importance of crowding hogs designed for slaughter—that it takes as much to make an animal "hold its own," as to keep up the highest degree of gain, and that, therefore, if we only half feed, what is consumed is a dead loss; so it is when we merely keep alive young cattle or other stock. But in no instance does full pasture or a proper supply of other food in winter, or when pasture is short, pay better than in the management of the dairy cow—the more plentiful the feed, the greater will be, not only the yield, but the absolute profit.—*T. C. J. in Live Stock Journal.*

A NEW CATTLE DISEASE IN JAMAICA.—A correspondent writes to the *London Field*: A relative in Jamaica writes: "I am in a sea of troubles; the cattle on one of my properties will not get well, and will die. Nobody here has ever seen or heard of anything like it upon any pen (a cattle estate) in the island. I have lost fully £900, and am by no means out of the wood. The animals waste away until they die; there is no other symptom than that of wasting, and, when opened, the liver is a mass of corruption, and full of big worms. I am well acquainted with the ordinary liver disease of cattle. The present plague differs from it in the beast having no cough, and in the old herd of between five and six hundred being affected. Nothing that I have tried does any good. The unusual quantity of rain which has fallen in the last two months, may have increased the epidemic."

HOLDING UP THE MILK.—C. F. Drake, Sullivan, Ohio, writes to the *New York Farmers' Club*: "I noticed, some time ago, a plan recommended to break cows of holding up their milk while being milked, and that was to place a weight on her back, while milking a cow that had such a trick. Now, I have had two such cows, and one of them had been subjected to that kind of treatment, and, in fact, every other device which could be thought of to cause her to give the milk down, and all to no avail, till they gave her some meal or bran, or something she liked to eat; then she would give her milk down. But she must be milked while eating. The other one even a mess would not induce to give down her milk. Both were Western cows, and I have heard of numerous others like my two here. We get rid of them as soon as possible."

IMMENSE PHOTOGRAPHS.—Photographs have been made of the new Opera House, Paris, four feet three inches in length, and three feet four inches in height. They were obtained in one single piece, by well known processes, and with the aid of a large and specially constructed camera. All the lines of the pictures are of remarkable excellence, the moldings, the busts, the medallions, and even the minutest details being reproduced with rare perfection. The attempt is being made to secure pictures even larger than this.

PATRONS OF HUSBANDRY.

STATE GRANGE HEADQUARTERS.

C. G. GARDNER, State Agent; Executive Committee Rooms; Fruit Growers' Associations, and Farmers' Mutual Life Insurance Company, all at No. 6 Lidesdorf street. W. H. BAXTER, State Secretary, at Grangers' Bank, 415 California street, S. F.

NOTICE.

From and after this date, all moneys due to the State Grange by Subordinate Granges should be forwarded to the Grangers' Bank of California, No. 415 California street, San Francisco, together with reports appertaining thereto, addressed to me.

JOHN B. CARRINGTON,
Treasurer State Grange.
19-v8-tf

November 4th, 1874.

Installation of Officers.

Any member of the State Grange is empowered to install the officers of any Subordinate Grange.
J. M. HAMILTON,
W. M. State Grange of Cal.

Extra Copies of the Pacific Rural Press

Containing Grange addresses, resolutions, obituaries, etc., will be furnished post-paid at ten cents per copy. Grangers wishing numerous copies should send the order for them with the MS.

To Patrons of the "California Granger"

Having taken the subscription list of this paper, we invite its former correspondents and subscribers to assist us with their labor and patronage in rendering the RURAL PRESS the most valuable farmer's paper in America.

Grange Slanders.

There is no end to the efforts of our enemies to sow dissensions among the ranks of the Patrons. No stone is left unturned to accomplish their purpose. No lie is too base to be uttered and repeated, even in the face of the most positive contradiction, accompanied by proofs of the falsehood of the utterance. We are led to these remarks at this time by noticing a late article in the *Allu* and other journals, republished from Eastern papers, in relation to the finances of the National Grange. This article is but a rebash of what has been often published before, and is as baseless as those upon the same subject which have preceded it. Full refutations of these falsehoods appeared in the RURAL PRESS of October 31st of last year.

It is really astonishing to see how little discretion or common sense is displayed by those who hope thus to hoodwink and deceive the toiling and suffering farmers of the land into a distrust of the only general and the most complete organization ever organized for their welfare and protection. We can account for such things only upon one or two hypotheses. Either these slanderers are assuming that the members of the great producing army of the Union are so debased and ignorant as to be totally unable to distinguish truth from falsehood, and candor from deceit; or the traducers themselves are so steeped in the infamy which overhangs and seems to envelop the great mass of government officials at Washington and elsewhere, that they themselves cannot distinguish right from wrong—and hold all public money, of whatever character, legitimate plunder for those who can reach it. We rather held to the latter, from the fact that every slander of this kind, so far, seems to have originated from some correspondent or newspaper editor in or near that great sink of iniquity—Washington City. We are not astonished that such things should emanate from such a source; but we do feel some surprise to find them reproduced in journals published in this city, which lay claim to a reputation for fairness and honesty in the discussion of matters pertaining to public interest.

In Memoriam.

Died, in the Tehichipa valley, Kern county, California, January 2, 1875, of congestion of the heart, BROTHER MARION S. WIGGINS.

At the time of his death he was in the fiftieth year of his age. He was a good Patron, an upright citizen and an affectionate husband and father. He leaves a wife and eight children to mourn his loss.

May the Great Master above, who doth all things well, and whose providences are hid in mystery, bind up the broken heart of this afflicted household, and cause them, out of the midst of their woe, to exclaim—"though He slay me, yet will I trust him."

W. S. EASTWOOD,
JOHN HENDRICKSON,
THOS. H. GOODWIN, Sec'y. } Committee.

ST. HELENA GRANGE.—Charles A. Story, Secretary of St. Helena Grange, informs us that the installation of officers elect for 1875, took place on the 2d instant. A short address was delivered on the occasion by Worthy Lecturer, Brother G. B. Crane.

ELECTION OF SENATOR FOR NEVADA.—William Sharon was elected United States Senator for Nevada, on Tuesday last. He received a large majority in both branches of the Legislature.

The Granges and Public Schools.

Believing that some misapprehensions exist with respect to the position taken by the State Grange upon the subject of text books in the public schools; I ask the liberty of correcting them through the columns of the RURAL PRESS.

It is well known that one of the objects of our noble Order is the education of the producing classes, and so fully is this illustrated in our ritual that it is not too much to say that no good Patron can be indifferent to the interests of the public schools. In the very first Grange circular published by Mr. Saunders at Washington in 1865, the modes of education by discussions, lectures, formations of Grange libraries, etc., are well stated; he says: "It may be remarked, that all of these measures are now in existence, so that their introduction is neither new nor novel; to this we answer that their direct application under a new and controlling principle is both new and novel, and one that has not previously been employed for the same objects. The novelty of this organization, and the manner it proposes of introducing a system of special education has hitherto prevented the originators from publicly calling attention to the work," etc. So it is with other modes of education and other applications of the same controlling principle. Again, the Declaration of Principles adopted last year by the National Grange is explicit on this subject. (Art. 4.)

"We shall advance the cause of education among ourselves, and for our children, by all just means within our power. We especially advocate for our agricultural and industrial colleges that practical agriculture, domestic science and all the arts that adorn the home be taught in their courses of study."

Art. 5 of the same Declaration, says: "the principles we teach underlie all true politics, all true statesmanship, and if properly carried out will tend to purify the whole political atmosphere of the country. We desire a proper equality, equity and fairness, protection for the weak, restraint upon the strong; justly distributed burdens, and justly distributed power. These are American ideas, the very essence of American independence, and to advocate the contrary is unworthy the sons and daughters of the American republic."

These principles were simply reiterated in the meeting of the State Grange at Stockton, in the report of the Committee on Education and Labor, which report, read in a full meeting of the Grange was unanimously adopted, with a resolution that a copy be forwarded to the State Board of Education.

Resolutions deprecating changes in text books, and resolutions in favor of changes promoting home industries had been passed in many subordinate Granges before the session of the State Grange; similar resolutions were presented to that body, and referred to the Committee on Education and Labor. This committee who met each other for the first time in their session had no other object than to represent faithfully the prevailing sentiment of the Grange, which was unmistakable on the following points, viz: A desire to avoid unnecessary expense; to foster home industries, other things being equal; to open the way for a gradual improvement of the school course of study in the direction of practical instruction, and to secure some instruction in the duties of citizenship for those who can expect only common school education.

Certain more specific recommendations to the State Board have been forwarded with the informal approbation of the Executive Committee of the State Grange, but no recommendation of any changes in text-books.

We recommend that the elements of plain sewing be taught in the public schools. This change, introduced last year, and successfully carried out in some of the public schools of Massachusetts has been highly satisfactory and successful in its results. Two hours each week were devoted to this study.

"Each class receives separate instruction suited to its advancement, and all grades of work are carried on, pupils receiving the same marks for progress as in other studies."

We recommend the formation of school museums of natural history by the scholars; a revision of the list of books for school libraries; with the publication of new price lists costing severally fifty, one hundred, one hundred and fifty, and two hundred dollars. We recommend in certain cases half time schools, and also the establishment of vacation schools, in which certain departments of technical training could be attended to without interfering with the regular course of study. Many recommendations were omitted which we would have liked to make, because we wished rather to open the way to the desired improvements than to dictate with respect to their adoption.

We did not overlook the importance of instruction in drawing, which we would have made as universal as writing. In the words of the Superintendent of Public Instruction in Massachusetts, we believe "that whatever dif-

ferences of opinion may exist as to the desirability of æsthetic culture as a branch of common school education, there is now a tolerably general agreement among well informed persons as to the commercial value of instruction in the various departments of industrial art, especially in a community largely engaged in industrial pursuits." Instruction in the natural sciences have the same direct relation to the business of agriculture, which industrial drawing has to manufactures. Not to amplify this subject the committee believe that there is no better way to promote the industrial interests of this State than by the improvements we have suggested in the public schools. We have been actuated by no other motive than the "greatest good to the greatest number." We believe that the Board of Education in our own as in other States will find in the Order of Patrons of Husbandry, one of the most powerful and reliable auxiliaries, ever ready and willing to lend them a helping hand.

JEANNE C. CABR.

Oakland, January 2d, 1875.

The State Lecturer at Home.

EDITORS PRESS:—It is a treat to enjoy a true home rest on one's ranch after such constant motion to and fro for three months. And it is especially gratifying to see how promising the wheat and barley crops of this part of Fresno county look, in spite of a December without rain.

To have no rain in December is a thing unknown before in San Joaquin valley for seven years and more. It naturally makes our farmers and merchants somewhat uneasy. With us you know a dry winter is a cold one, while a wet winter is mild. In keeping with this rule, we have had very cold nights and mornings for three weeks past. For two or three weeks in December, I learn, we had heavy fogs, sometimes so dense that the sun was not seen for days. This is no doubt one reason our growing grain continues to do so well. Up to date we have had twenty-four white frosts in succession. The only mischief this continued dry and cold weather has done so far, is to stop plowing on land unbroken before and to injure wild feed very seriously. The latter is now becoming scarce. In view of these facts heavy clouds to-day, the first for several weeks, give most cheering

Promise of Rain

Within a few days. About as large an acreage will be sown around Borden this winter as last, that is about 10,000 acres of wheat and barley; all but a few hundred acres of this are already sown and growing finely. The canal company, much to our gratification, are making improvements in our irrigating ditches, so we hope to irrigate more than we could last spring. One advantage of irrigation is now apparent in the fact that on all land which was flooded last spring, grain is much more forward and is growing more rapidly than on unirrigated land. This proves what a lasting benefit the flooding of land is, and makes us more hopeful of its good results. As regards the amount of rain to come this season, we have, perhaps, no good reason to be despondent. An examination of the relative amounts of

Rain Before and After January 1st,

Goes to prove that we usually have three or four times as much after that date as before. So good were our rains this season in October and November, that we had nearly four inches of rain before the New Year. This promises an average season.

Speaking of the rains of San Joaquin valley, reminds me of a very important error that occurs in a work that is taken by many as an authority. The book in which it occurs has some circulation abroad, I believe, and wherever it is read this grave error goes with it, and is calculated to give a very damaging opinion about the rainfall of San Joaquin valley. The book in question is "Hittell's Resources of California," sixth edition. Speaking of the rains for the winter of 1870-71, our worst since '64, it gives, on p. 40, the amount of rainfall that year at Modesto, as only 2.25 inches! I measured the amount carefully that year and several others within 15 miles of Modesto and know the amount was 7.25 or 5 inches more than is stated by the work in question. The error may be a typographical one; if so, it is none the less important to have it corrected, in justice to San Joaquin valley. The amount, 7.25 inches, is the smallest ever recorded here. We usually have had from 10 to 17 inches since 1868. Last winter in Fresno we had about 14 inches. There is but one part of California where even as little as 3 inches of rain falls per annum. That is the Inyo country and perhaps that desert part of San Bernardino county south of Inyo. But Inyo is supplied with abundant irrigation from unfailing streams that are fed by Mt. Whitney and adjacent peaks of the Sierras. An important fact about

Winter Temperature in Fresno,

Upon the plains, has been brought out by observations with the thermometer this winter. Observations at Borden and also at Fresno City, as reported in the *Expositor*, show that though we have had so much cold weather this winter, the lowest the mercury has stood about sunrise, or 7 A. M., is 26 degrees. This goes far to prove that oranges, lemons, limes and olives can be successfully raised in Fresno county. In Stanislaus and Merced counties, near Merced river, the coldest one winter was

16 degrees, and another winter 10 degrees. Ice at that time was about an inch thick. In our part of Fresno it has never been seen thicker than a half inch. As these semi-tropical fruits will thrive where the temperature does not fall below 20, we now have much confidence that these fruits can be added to our products. Experiments are being tried this winter. We have strong reasons to believe also, that Fresno county is destined to become one of the best grape counties in California.

But I must take leave of the readers of the RURAL for the present. When they read these words the writer will be wending his way, by emigrant train, via New York to attend the meeting of the

National Grange,

At Charleston, South Carolina. There we expect a most interesting session from February 3d to the 12th. We trust its work will add still more to the success already achieved by our noble Order in begetting true sympathy and harmony among our people, as well as the advancement of our producing classes. None must think, by the mode of travel selected, that I propose to emigrate finally from our fair State. I shall be with you again early in April, if life and health are spared. Letters will reach me at Charleston up to February 13th, and at Green Springs, Alabama, up to March 15th.

Congratulations and success to the RURAL and Granger combined. May the good qualities of both be harmoniously blended. We believe much good will come of the union of the two. Yours fraternally,
JOHN A. WRIGHT.

Borden, January 11, 1875.

Election of Officers.

RUSTIC GRANGE, No. 83 (Corrected).—L. P. Whitman, M.; Fred Brownell, O.; G. W. Haines, Sec'y; H. S. Stewart, T.; Geo. W. Francis, L.; Mrs. A. V. Fisher, C.; M. A. Speaker, L.; Wm. Allen, A. S.; L. W. Rowland, G. K.; Mrs. Eliza Allen, Ceres; Miss Dora Molloy, Pomona; Miss R. A. Sperry, Flora; Miss Mattie Buchanan, L. A. S.

LITTLE LAKE GRANGE, No. 151.—W. A. Wright, M.; S. Harter, O.; W. V. Powell, L.; N. W. Norton, S.; J. H. Fulton, A. S.; J. G. Snell, C.; M. K. Sawyers, T.; A. P. Martin, Sec'y; James Frost, G. K.; —Ceres; Mrs. S. E. Gardner, Pomona; M. H. Lambert, Flora; M. C. Felton, L. A. S.

STOCKTON GRANGE, No. 70.—Thomas E. Ketchum, M.; Wm. G. Phelps, O.; Beuj. E. Brown, L.; J. B. Harelson, S.; Wm. A. French, A. S.; Daniel Discho, C.; E. H. Allen, Sec'y; Israel Landez, T.; Thos. Stephens, G. K.; Miss Emma French, Ceres; Miss Mary Stephens, Pomona; Miss Mary A. Harelson, Flora; Mrs. Wm. B. West, L. A. S.

SAN JOSE GRANGE.—Wm. Erskson, M.; T. E. Snell, O.; Alfred Chew, L.; J. Powell, S.; J. Holland, A. S.; A. P. Stouier, C.; W. L. Mauly, T.; Rufus Fisk, Sec'y; J. Cottle, G. K.; Mrs. E. P. Bicknell, Ceres; Mrs. L. H. Erskson, Pomona; Mrs. S. Rucker, Flora; Mrs. E. Far-moor, L. A. S.

LOWER LAKE GRANGE, No. 77, LAKE CO.—From Lucy S. Wilson, Sec'y, Oct 26th: J. W. Howard, M.; C. L. Wilson, O.; R. Kestinge, L.; J. D. Hendricks, S.; R. K. Nichols, A. S.; H. H. Hazel, C.; J. C. Crigler, T.; Lucy S. Wilson, Sec'y; Thomas Monrland, G. K.; Mrs. Cunningham, Ceres; Emma A. DeWolf, Pomona; Emma Farris, Flora; Mrs. R. K. Nichols, L. A. S.

LINDEN GRANGE, No. 56.—E. B. Cogswell, M.; David Lewis, O.; R. P. Nason, L.; Samuel Titus, S.; David Dodge, A. S.; L. A. Morse, C.; James Wasky, Sec'y; W. F. Prather, T.; C. W. Martin, G. K.; Miss Fanny Prather, Ceres; Miss E. M. Wasky, Flora; Miss Mattie Grube, Pomona; Mrs. E. J. Martin, L. A. S.

GRANGE CONSOLIDATION.—The Mayfield Grange has consolidated with the Santa Clara Grange; the members joining the Santa Clara Grange.

COLUSA CENTRAL GRANGE, Colusa county.—D. Bebe, M.; J. O. Zumwalt, O.; M. P. Hildreth, L.; Frank Beardman, S.; J. Dawson, A. S.; B. C. Kimbrell, C.; Henry Husted, T.; Carrie Webley, Sec'y; E. B. Douca, G. K.; Mrs. Annie Husted, Ceres; Miss Cora Beke, Pomona; Miss Mary Guthrie, Flora; Miss Lucy Duesen, L. A. S.

A GRANGE REVIVAL.—There is said to be a great "revival" in progress among the Granges in the southern portion of New Jersey. The increase of members is very rapid. Hundreds of farmers who six months ago wagged their heads in derision at becoming Patrons are now knocking loudly at the outer gate for admission. Several of the wilhom weak Granges have now turned the corner with 100 hundred members, and many more are close upon that number. In six months more, says the New Jersey Granger, the outside farmers will be so few and lonesome that they will hardly dare to venture out o' nights.

GRANGERS' BANK OF CALIFORNIA.—We learn that the second assessment of \$5 per share on the capital stock has been coming into the treasury in a manner particularly satisfactory to the managers. Business has steadily increased. Work for the attendants has been lively since January 1st. Farmers having banking business in San Francisco should not forget the Grangers' Bank, 415 California street.

From the Granges.

Cache Creek Grange.

EDITORS' PRESS:—I had the honor and pleasure to meet with Cache Creek Grange and install their officers on New Year's day. They had made arrangements for a harvest feast and New Year's dinner, which arrangements they carried out to perfection. There were delegations from Capay, Buckeye, and Dixon Granges. The Grange was called to order and opened in due form at 12 o'clock, M., and the order of business run over briefly; when the gates were thrown open and many who did not belong to the Grange came in to witness the installation ceremonies. S. A. Howard was installed Master, and R. B. Butler, Sec'y. (I am not able to give the names of all the new officers.) Brother Hulbert upon retiring from the chair made a very handsome speech in which he thanked the officers and members for the assistance they had given him through the past year, etc. At the conclusion of the installation ceremonies, Sister Rudolph, a young lady about 16 years of age, stepped forward, took Bro. Hulbert, the Past Master by the arm, led him out to the center of the hall, and, in behalf of the sisters of Cache Creek Grange, with a very neat little speech, presented him with a set of gold shirt buttons, in token of their appreciation of his labors during the past year in the interests of the Patrons of Husbandry. This was a little too much for Bro. Hulbert; it took him so much by surprise, he could not find words wherewith to express his feelings. After his reply a recess was announced, and the tables were spread. It is of no kind of use for me to undertake to tell you all they had to eat, for I could not think of it all between now and to-morrow morning, much less write it. Suffice it to say they had plenty of every thing that is good to eat. The feast being over, the Grange was called to order. All who were not members of the Order withdrew; the new officers took their stations, and we left them working harmoniously. This is the largest Grange in Yolo county, and I predict will be a very lively working Grange in the future, as it has been in the past. On the next day, January 2nd, I installed the officers at Davisville, but have not time now to give any of the particulars, more than we had a first-rate time. Saturday, the 9th inst., I will go to Capay to install Buckeye; will install the 14th; farther than this I am not now posted.

I want to tell you before I close that we had a Christmas tree at Buckeye, under the management of the Grange, which was a complete success in every particular. The old as well as the young were remembered with valuable presents, and just funny things enough to keep it from being dry. But, by the way, when I write that word "dry," it reminds me that we would like to see a good rain up here now. Some are getting a little scared, and I would rather have the rain than the promise of it. Never was there so much grain in the ground at this time of the season. WM. SIMS.

Buckeye, January 5, 1875.

Colusa Central Grange.

EDITORS' PRESS:—On Saturday last our Grange held a feast in its new, large and commodious hall. It being a first occasion the tables were set on the lower floor, while the members of the Grange and their guests assembled in the upper story, where the Grange was opened in due form by J. P. Kimball, Master, and three candidates were obligated in the fourth degree. After a few minutes recess we had public installation of officers, and all joined in partaking of the bountiful feast which had been prepared.

I send you herewith a list of the officers installed for the ensuing year. We hope they will be alive to the interests of the Grange.

MRS. CARRIE WELBY, Sec'y.

Washington Grange, No. 228.

EDITORS' PRESS:—We are pleased that you have allotted us space in our paper to communicate with our sisters and brothers. You will perceive from our number that we are young; but we are growing rapidly and expect to greatly increase our numbers by next summer. Bro. G. C. Holman, Master of Lockport Grange, visited us on the 9th and duly installed our officers. His very pleasant address and admonitions were highly appreciated by all, and were the means of inducing many to apply for membership. We can but tender him thanks for the benefits thus conferred.

M. L. COOK.

San Joaquin Co., Jan. 11th.

Ceres Grange.

EDITORS' PRESS:—The officers of Ceres Grange No. 64, were installed yesterday, Jan. 9th, by our Worthy Deputy of Stanislaus county, J. D. Reyburn, who gave us some pleasing and pointed remarks on that occasion. Quite a number were present, but the attendance was not so large as it would have been were it not that the farmers in this vicinity are very busy just now seeding their land. The Ceres Grange numbers sixty-two members in good standing. We have lost one by death and expelled one since our organization, August 31, 1873. The weather here is quite dry, but farmers are generally hopeful and are seeding all the land they can. Yours, fraternally,

R. K. WHITMORE, Sec'y.

ANOTHER "NEW IDEA."—In some of the Granges in Indiana a "query box" has been introduced. Important questions are written on slips of paper; the Secretary then passes the box, collects and reads them, and the members of the Grange who wish to do so, give their views upon the questions read. This plan might no doubt be pursued with good results in connection with the custom adopted in many of the Granges of appointing two or more members to prepare essays on the interesting questions proposed, to be read at the next meeting of the Grange.

HELPING ONE ANOTHER.—At a recent convention of Patrons in Mississippi a resolution, among others, was formed to the effect that Patrons should loan their surplus money to members of the Order in preference to all others; and urging each Grange to ascertain the financial condition, and when necessary or proper to relieve the wants of its members. Each Grange was also requested to have an article carefully prepared, each month, for publication in some home journal, on topics of special interest to the people of its locality.

GRANGE COUNCIL FOR NEVADA.—The several Granges in the State of Nevada propose to organize a State Council for the purpose of more effectively carrying out the objects of the Order. Each Grange will elect five delegates, to meet at Carson on the 26th of this month. This is an important and very necessary move for the Patrons of our sister State. It is to be hoped that the Order may soon become sufficiently strong in that State to authorize them to organize a State Grange.

THE GAME LAW.—The game law provides, (Sec. 628 of the Penal Code) between the first of January and the first day of July it shall not be lawful to kill any deer, elk or antelope. Quail, partridges and ducks shall not be killed between the fifteenth day of March and the fifteenth day of September. Trout shall not be caught between the fifteenth day of October and the fifteenth day of April.

HELP FOR THE SUFFERING.—The Grangers and citizens of Livermore will ship a car load of wheat, flour and provisions this week for the Kansas sufferers. The Central Pacific railroad company will forward the car free to Ogden. A sum of money was recently sent from Livermore to Topeka, Kansas, for their relief.

THE GRANGES OF MISSISSIPPI are moving earnestly in the matter of establishing a co-operative central business agency, similar to that now in progress of organization in this State. They are also moving in the matter of establishing factories for the manufacture of wagons and agricultural machinery.

GRANGE ON TEXT BOOKS.—The Secretaries of Rutherford and Cache Creek Granges have notified us of resolutions being passed by their respective Granges in opposition to the change of text books in the public schools of California.

GRANGES IN OREGON.—There are 243 Granges of the Patrons of Husbandry in Oregon and adjoining territories. These have an average membership of 50 each, which gives 12,150 persons affiliating with the Order there.

THE Patrons of Kentucky are taking steps to establish Grange banks.

THE SCHOOL BOOK QUESTION.—The Board of Education have ordered the following changes in the text books to be made in the public schools throughout the State:

First—The Pacific Coast Readers were adopted in place of McGuffey's.

Second—The Specimen Penmanship was adopted in place of the Payson, Dutton & Scribner Series.

Third—Cornell's Geographies were adopted in place of Monteith's.

Much unfavorable comment has been indulged in by the papers throughout the State at this action of the Board. We are inclined to think, however, that the public are not clearly informed with regard to this subject, and we shall endeavor next week to present facts from which our readers will be better able to judge intelligently with regard to the full merits of the controversy.

PATENTS & INVENTIONS.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

[FROM OFFICIAL REPORTS FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.]

By Special Dispatch, Dated Washington, D. C., Jan. 12th, 1875.

FOR WEEK ENDING DEC. 29th, 1874.

ALMOND GRATER.—Julius Leroy, S. F., Cal.

FRUIT DRIER.—William S. Plummer, S. F., Cal.

HAY PRESS.—John Wiley, San Andrean, Cal.

—The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue. NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & CO., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with perfect security and in the shortest time possible.

Agricultural Items.

ANGORA GOATS.—The Watsonville *Pajaronian* learns that E. R. Marsh, of San Francisco, has recently invested \$27,000 in Angora goats; also, Wm. Hall, of San José, lately purchased a lot at \$11,480; and C. S. Abbott, Flint, Bixby & Co., and B. Boswell have bought up all the stock of the Guadalupe Island company, except about 300 shares, and the stock held by Landrum & Rodgers. These men represent several million dollars, and mean business in goat raising. We may note in this connection that Landrum & Rodgers, of Watsonville, will, during the next two months, ship about 3,000 pounds of mohair to Philadelphia.

THE Santa Clara Valley Agricultural Association on Thursday elected the following officers for 1875: President, W. C. Wilson; Vice-Presidents, Cyrus Jones and Jessie D. Carr; Secretary, Givens George; Treasurer, C. T. Ryland; Directors, William O'Donnell and S. J. Jamison.

In the foothills of Fresno county grass and volunteer grain is so forward that it would now make good hay. A gentleman informs the *Expositor* that he cut hay on his ranch on the last day of the year, but he couldn't cure it for the want of sun.

THE Lakeport *Bee* is informed that the tobacco crop planted near Guenoc last year by A. A. Ritchie has proved successful. The crop has been cut and saved, and will be cured the coming spring.

In the vicinity of Santa Barbara, a farmer last year raised over 60,000 pounds of Florida tobacco on 30 acres of land. He has sold the same at 40 cents per pound for Eastern shipment.

It is reported that in Yuba county the cherry buds are much swollen, and that the frost has nipped a good portion of the crop.

THE next annual fair of the Santa Clara Valley Agricultural Society will be held the week following the close of the State Fair.

THE continued dry weather has seriously injured the volunteer potatoes growing near School House station.

THE growing crops in San Diego county are looking exceedingly well; the ground is in excellent condition, and the outlook is better than ever before.

IN Hicks' valley, Sonoma county, grass is coming on finely, and stock is doing well.

NAPA valley has never yet suffered from extreme drouths.

Industrial Items.

MANUFACTORIES AT THE SOUTH.—It is said that the cotton factories recently established at the South are the best paying industrial institutions in the country. They have proved that the fabric could be worked to more pecuniary benefit where it was grown than in those portions of the country generally known as the manufacturing districts. An important point, this, for California capitalists.

BOSTON ENTERPRISE.—Boston is showing much enterprise in further pushing out her iron arms for the trade of the West. A special committee of the Massachusetts Legislature is now examining the terminal facilities of the Baltimore and Ohio Railroad company, for the purpose of legislative action in making South Boston flats the terminus of a through railroad line from the West to that seaboard.

TUNNELING THE NIAGARA.—A plan for tunneling the Niagara river at Buffalo has been prepared by William Wallace, an engineer of that city, who estimates the cost at about \$1,500,000.

SHIP BUILDING at Vallejo is proving a great success. A fine schooner was launched on Saturday last for which \$32,000 has already been offered.

THE Palace hotel will formally open about the 1st of September next. A hundred miles of telegraph wire are in use to connect the rooms with the office.

A JOINT stock company has constructed a skating rink at Winnemucca. Perhaps, however, this may not be considered an industrial item.

SURVEYORS are at work on the survey of the proposed narrow gauge railroad from Pescadero to Pigeon Point.

THE Sacramento sugarie has just erected a large two story building for a distillery and potash factory.

THE proprietors of the Marysville foundry will soon establish a branch establishment at Chico.

THE California Chemical Paint company has increased its stock from \$150,000 to \$2,000,000.

THE Lincoln coal has been tested for smelting iron at Marysville, with favorable results.

THE Gilroy flour mill has an order for 2,000 barrels of flour from Liverpool.

A box factory has been started at Nevada City.

General News Items.

THE BLACK HILLS.—The avaricious gold-seekers who had defiantly pushed their way into the Black Hills country in spite of the warnings and prohibitions of the Government have been driven out by the cavalry under Capt. Henry. This is a disagreeable climate in the winter—an Iceland compared with the gold and silver fields of California. Let the expelled miners turn their steps to California, and they will find richer mining than will ever be developed east of the Rocky Mountains, in a climate unequalled even in sunny Italy, with abundance of game to satisfy all their sporting desires, together with the more substantial food and necessities of life while mining. We may remark in this connection that recent disclosures at Washington, seem to indicate that the gold reports from the Black Hills have been an artifice in favor of a country through which interested parties desire to build the Northern Pacific Railroad.

THE BRIBERY INVESTIGATION.—The committee having this matter in hand have traced \$750,000 to the very doors of Congress, where it disappears in the hands of men who refuse to tell what became of it. Under these circumstances it is impossible to avoid the conclusion that some of it found its way into the pockets of members; and this conclusion brings into suspicion every member who labored or voted for the subsidy. The great mass of members cannot afford to rest under such suspicion. They must insist upon a full disclosure from those into whose hands the money has been traced, whatever the consequences may be. The order of the speaker confining Irwin to the common jail, and indicating the commencement of legal proceedings which will continue his confinement after the expiration of Congress, is a step which bodes no good to any one either directly or indirectly connected with this disgraceful transaction.

THE NEW CURRENCY BILL.—The bill for the resumption of specie payment which has just passed both Houses of Congress, provides:

First—A redemption of legal tenders, and of resumption of specie payments four years hence, on the 1st of January, 1879.

Second—Free banking, in the widest sense of an unlimited issue of National Bank currency.

Third—A withdrawal of 80 per cent. of the amount issued in new bank currency from the volume of greenbacks, until the amount of \$300,000,000 for United States notes is reached.

Fourth—A substitution of small silver coin for fractional currency.

Fifth—An abolition of the mint charge.

KILLED BY A FIELD ROLLER.—A severe and perhaps fatal accident occurred to Mr. Campea, of Borden, on the 4th inst. He was engaged in rolling his land, and some part of the wood-work of the rolling machine on which he was riding gave way, and he was precipitated to the earth in front of the roller, which passed over his body, crushing and mangling him in a fearful manner. The roller weighed 1,500 pounds.

THE FIRST DETENTION.—The first severe storm and cold weather during the winter occurred on Saturday night along the Union Pacific railroad. The thermometer marked 16 degrees below zero at Omaha, and 26 below at Cheyenne. The westward bound Union Pacific train was eleven hours late at Green River on Saturday evening.

COMING TO AMERICA.—It is said that Emilio Castellar, the eminent statesman and Republican leader of Spain is coming to this country. He will meet with a warm reception here. Spain, under its present regime can have but little attraction for him—even if he could remain there with safety to his person.

RECIPROCITY WITH HAWAII.—Dispatches from Washington say that if the negotiators act promptly in settling up the details of the Hawaiian reciprocity treaty upon such a general character as is understood to be contemplated, there is no doubt of its prompt ratification by the Senate.

SCOTT'S RAILROAD BILL.—Efforts are being made in Congress to have Tom Scott's bill amended so as to connect the Texas Pacific railroad with the Central Pacific railroad at Fort Yuma, and thus leave the latter undisputed control of the great route with California.

ACCIDENTS AT THE PALACE HOTEL.—Several accidents occurred to workmen by falling from beams and scaffolds at the Palace hotel during the past week. One of the natural results of building too high.

THE Healdsburg *Flag* states that a fire occurred in Point Arena Thursday last, which destroyed Lyman's hotel, McMullen's saloon, Shoemaker's saloon, and a house belonging to Iverson.

THE big bear that killed Berry near Sierra valley a few weeks since was dispatched last Thursday by a party of hunters. Bruin weighed 800 pounds.

BANK NOTES BURNED.—Nearly \$400,000 in new National bank notes were destroyed by the burning of a postal car on Thursday of last week on the Potomac railroad.

THREE men were burned to death by the destruction by fire of the Western Hotel at Sacramento on Saturday last.



Give Me the People.

Some love the glow of outward show,
Some love mere wealth and try to win it;
The house to me may lowly be,
If I but like the people in it.
What's all the gold that glitters cold,
When linked to hard or haughty feeling?
What's the world's gold, the nobler gold
Is truth of heart and manly dealing!
Then let them seek, whose minds are weak,
Mere fashion's smile and try to win it;
The house to me may lowly be,
If I but like the people in it.

A lowly roof may give us proof
That lowly flowers are often fairest,
And trees, whose bark is hard and dark,
May yield us fruit and bloom the rarest!
There's a worth as sure 'neath garments poor,
As e'er adorned a loftier station;
And minds as just as those we trust—
Whose claim is but of wealth's creation!
Then let them seek, whose minds are weak,
Mere fashion's smile and try to win it;
The house to me may lowly be,
If I but like the people in it!

The Other Side of the Story.

[Written for the Press by Mrs. ELISA E. ANTHONY.]

Did I ever? Messrs. Editors, I am heartbroken to think that you would publish such a slander about one of your most devoted readers; but it only proves what I have always affirmed, that men are not to be trusted, he they editors or common people.

To think of my husband, Timothy Toedles, Esq., to whom I have been married over thirty years, getting himself into print.

Why, it is ridiculous! And to think that I, who was fifty years of age last month, and never saw my name in print, save the day when Toedles and I were joined together, till death or some woman do us part—to think, I repeat, that I should be so ridiculed in that heartless manner; and adding insult to injury, give it such a name as "A Hen-Pecked Husband's Soliloquy." Hen-pecked! The idea! Why didn't he name it "The trials and tribulations of Timothy Toedles, Esq.?" but no! That was not high-sounding enough for him. I will now tell my side of the story:

Toedles kindly remarks, that I follow him from one room to another, until it is too late to go out. And why shouldn't I, pray tell me? When he does "slip away" without my knowledge, (one of his delectable phrases), he never comes home until after midnight; and in answer to my wifely questionings, replies "That the lodge was later than usual, transacting important business." "Lodges" are very convenient subterfuges, are they not? I should like to know why women cannot have "lodges" to visit, when the baby is cross, or the head of the family scolds.

Whenever the fire-bell rings during the night, up Toedles starts, and would rush out bare-headed and bare-footed, but I am afraid that he would get over-heated, and then take cold, or a building might fall on him, or his modesty might be shocked by seeing a woman without her dress. Toedles is a very modest man, and I persuade him to remain at home, partly by hiding his clothes, and partly by having a dreadful toothache. And after all my care, he coolly remarks "That there is such a thing as being entirely too solicitous."

The wretch! to hold me up to the derision of the world. Why! My hair is getting whiter every day, since that article has appeared in print; but my time will come. As for my turning his pockets inside out, what of that? When a loving wife once discovers a picture of a doll-faced girl, carefully wrapped up in tissue paper in her woe half's pocket, and on inquiry, is told that it is a favorite cousin's likeness (Oh! these very convenient cousins), she is very apt to search his pockets regularly; and ninety-nine wives out of a hundred—and perhaps the hundredth also—would do the same thing.

Such a looking-house, when I came home! Words cannot do justice to the subject. I defy any woman, who has the spirit of a mouse, to feel pleasant, when she stumbles over a chair on entering the house, finds the parlor in a state of chronic confusion, the chairs upset, curtains torn, carpet ruined, canary bird dead, piano scratched, uncomplimentary remarks written under the picture in the album; the bed-chambers looking as if there had been a battle fought there; pillows on the floor; her best hat in the corner, looking as if it had been used in a game of battle-dore and shuttle-cock; cigars strewn around the bed and room; hats, coats and boots here, there and everywhere, and a decanter of wine upset on the floor beside a picture of a ballet dancer in an impossible attitude; the kitchen so littered up with dirty dishes, novels, bottles of perfumery, satin vests, curling tongs, music books, broken glass, kid gloves, withered bouquets and goodness knows what else. You can imagine my feelings, when I saw all this, and then read a note which he had fastened to the broken mirror.

"DEAREST SALLY ANN—I am unavoidably compelled to leave home on business for about two weeks; but will return at the expiration of

that time, hoping to find a pleasant home, and a cheerful wife. You little imagine how I have missed you. Your loving
TOODLES."

Dearest Sally Ann!
Any one would infer from the above, that he had several other Sally Ann's, and I was the "dearest." Yes! I have no doubt that he missed me, to make home "pleasant." On a conspicuous part of my virtuous couch I saw a paper with the article before mentioned heavily marked with a blue pencil. Like all of Eve's daughters, I have my share of curiosity, and I took the paper, sat down on the floor; my favorite easy-chair had one of its—ahem—limbs broken, and commenced reading. The first two lines struck me as being something similar to my case, as I had gone to visit my mother; but I read on, until the slanders made my face burn—I never use rouge—and to give my slowly bristling hair, a chance to stand on end, I threw off my hat, and still read on, until I noticed that he would go away on business for about two weeks.

That was the last straw! I knew Toodles had written it. A man of his years—fifty-eight next week—old enough to have more sense, rushing into print, and making himself conspicuous. I knew now what had befallen my venerable Thomas Cat. No more his musical "meion" would greet me. I rose in my wrath, with some difficulty, smoothed my erect hair, left a brief message underneath his interesting sketch. "Your wife awaits you at the hotel," and I majestically departed, leaving the house in the condition I found it.

Two weeks later, Timothy Toedles, Esq., entered my presence, and rushed forward to embrace me. I waved him off, and sternly said: "Perfidious man, were you not ashamed to invade the sanctity of our home, and lift the curtain to the public view?"

He looked bewildered, and then said: "What did you say, Sally Ann?"

I gazed scornfully at him, and repeating my question, adding: "I know all; I have read your delectable effusion holding my gray hairs up to the scorn of the world; and will now say, that I shall not enter your house, until it is in the spotless order that I left it. I shall remain here, as you think it is so economical, and you can pay the bill."

I never saw a man look so crestfallen. He agreed to everything, and three days later, I triumphantly entered my house, and found everything in order, and new curtains, new mirrors, new carpet, a new canary bird and a beautiful Thomas Cat, which reminds me of my departed favorite.

Timothy Toedles, Esq., has been very subdued since then, as I remind him of his article, only three times a day; and thanks to my training, I am positive, gentlemen, that he will never trouble you again, by rushing into print in that ridiculous manner.

Now you have heard my side of the story, do you blame me for my righteous indignation?
San José, Jan. 1st, 1875.

THE ADVANTAGES OF WINTER.—Winter makes nations manly by driving men into social nities, and obliging them to live with each other, and devise ways for their amusements and instruction. In a mild climate, where there is no necessity for men to dwell under a roof, they wander abroad, and in a great measure dispense with each other's society, so that, although they may have a certain amount of cursory enjoyment, they are comparatively uninstructed. But, in a severe climate when the cold season shuts men out from the field and they retreat from their ordinary vocations, and the days are short and the evenings are long, the dwelling becomes a school-house, and there must be conversation and reading. Under such circumstances the family is a center of knowledge; and, if there be any leaven in it, a center of Christianization.

MARRIED LIFE.—Caresses and attention, and all the pretty follies of love, are for the idle hours and the cloudless sunshine; but the silent sweetness of married friendship is that for which men look in dark days, and the treasure on which they rest. Why cannot women learn reliance? they think. Why must they always need to be told again and again that which they already know, and begin to doubt as soon as they cease to hear? This is the first contest of nature in married life, but it is one wherein, if the woman is wise, she will yield without a murmur, and hide her disappointment as carefully as the Spartan boy hides his fox.

In the family all the children serve the father and mother; serve them in love; serve them not in such a way as to abolish anything that is in them, but in such a way as to enable them to turn all their faculties into the current of a purified and noble affection. They grow up giving and taking, and doing these things through disinterested affection, and being taught to do them so. What an education this is!

A MUSH AND MILK SOCIABLE.—The Placer-ville Democrat says: Mrs. Kirk will give a mush and milk sociable in the basement of the Methodist Church, on Friday, Jan. 15th, 1874. Everybody is invited to be in attendance. The proceeds are to be devoted to charitable purposes.

WHEN old people go back to their childhood, what things do they remember most? what do you remember about your mother that is gone? Not anything by which she was formally made known to the world, but some scene of tenderness, some fragrant sentiment which lingers in your imagination.

Naming Babies.

It is a fearful responsibility to be delegated to name a child which is not your own. So far as my children are concerned, I am never bothered; I just watch them for a few days to catch a leading trait in their character, and then found the name on that. If they are mild tempered and peaceful, I select some such name as Placid, Contentment, Harmony or Peace, and if ugly, I saddle 'em with Hurricane, Tornado, Tom Sayers, Cape Horn or Texas Jack. Strangers are sometimes amazed to see me go down to the gate, and hear me call out: "Tornado, Sayers, Cape Horn, Johnson, Quad, you and Contentment, Harmony, Sunflower, Burlingame come in to supper," but I run my domestic affairs as suits me best.

Mrs. Daison was over the other day with her baby. It is a stub-nosed, red-faced rascal, and I hope he'll never be named at all. She put him into my lap and said:

"Now, do give him a name—something sweet and handsome and good."

The young scoundrel looked me in the eye for a moment, and then deliberately kicked me five times in the stomach and clawed my nose. I told his mother that she'd better name him Tarantula, or Centipede, or Cougar, and she picked him up, hugged him, and said that I had the reputation all over the neighborhood of being a brute.

Mrs. Dogber also brought over her offspring the other evening. It is a girl with red hair, white eyes and large ears, and she spit at me the moment I took her up—spit full in my face, and howled and fought to get hold of my necktie.

"She's such a blessed, sweet-tempered little angel, that you must give her some awful nice name," said the mother.

I suggested Susie, Bessie, Bella, Dolly, Betsy, Mollie, Sallie, Tillie, and fifty other names, but Mrs. Dogber replied that I hadn't any refinement about me, and she said the darling creature was to be named Mirabel Augustine St. Clair Dogber.

There's nothing like having a high sounding name for a child, no matter if his father has to work for a dollar a day, and his mother goes out washing windows. Very often as I come up to dinner I find George Washington Hugo Brown rolling in the dirt with Thomas Jefferson Adolf Le Grand Smith, while Darabel Florian Victoria Grump is drawing a stick up and down the walk by a string, driven by Theodore Jackson Duke Albert Fleming. If those children had common names I shouldn't care a cent whether they lived or died.—M. Quad.

HAPPINESS IN THE FAMILY CIRCLE.—If a man is so situated that he cannot be happy in his family relations, he will not enjoy happiness at all. Man must cultivate, therefore, and look for this great end of his labors at home in the bosom of his wife, and in the affection of his children. Around his own hearth, in the presence of a loving family, the husband and father, himself the affectionate head of the household, cannot be otherwise than happy. He has no competition in business there, no opposing candidates for honors no grasping, unscrupulous enemy, who may seek to take advantage of every weak point to injure him and tear from him his earnings and possessions; but every one near him gives him preference, is awake to his interest in everything; they emulate each other in doing him heart-felt honor, and without dissimulation or affectation, sympathize with him in all his sorrows, hopes, joys and triumphs. His loving intercourse at home is followed by no remorse, is attended by no disquieting reflection or regret. He is there perfectly at ease, may be himself without reserve, and be sure that no unpleasant occurrence or consequence can result therefrom. It is his kingdom, and he is beloved by every subject. His wife is the honored queen of home; none dispute her benign sway; she rules by smiles, and the whole family lives in her love, and can be happy only where they possess it.—Dr. Byford.

AN OLD TIME CUSTOM.—The Babylonians had a law, which was also followed by the Heneti, an Illyrian people, and by Herodotus thought to be one of their best, which ordained that when girls were at a marriageable age they were to repair to a place where the young men were assembled. They were then sold by the public orator, who first disposed of the most beautiful one. When he had sold her, he put up others, according to their degrees of beauty. The rich Babylonians were emulous to carry off the finest women, who were sold to the highest bidders. But as the young men who were poor could not aspire to have fine women, they were content to take the ugliest, with the money which was given with them; for when the orator had sold the handsomest, he ordered the ugliest of all the women to be brought, and inquired if any one was willing to take her with a small sum of money. Thus she became the wife of him who was most easily satisfied, and thus the finest women were sold, and from the money which they brought small fortunes were given to the ugliest, and to those who had any bodily deformity.

A YANKEE poet thus breaks forth: "Oh! the snore, the beautiful snore, filling the chamber from ceiling to floor! Over the coverlet, under the sheet, from her wee dimpled chin down to her pretty feet! Now rising aloft like a bee in June; now sunk to the wail of a cracked bassoon! Now, flute like, subsiding, then rising again, is the beautiful snore of Elizabeth Jane."

Why "Ugly Sam" Reformed.

A Promise to a Dying Mother—A Story that Touches the Heart.

He had been missing from the "Potomac" for several days and Cleveland Tom, Port Huron Bill, Tall Chicago and the rest of the boys, who were wont to get drunk with him, couldn't make out what had happened. They hadn't heard that there was a warrant out for him; had never known of his being sick for a day, and his absence from his old haunts puzzled them. They were in the Hole in the Wall saloon the other morning, nearly a dozen then, drinking, smoking and playing cards, when in walked Ugly Sam.

There was a deep silence for a moment as they looked at him. Sam had a new hat, had been shaven clean, had on a clean collar and a white shirt, and they didn't know him at first. When they saw that it was Ugly Sam they uttered a shout and leaped up.

"Cave in that hat!" cried one.
"Yank that collar off!" shouted another.
"Let's roll him on the floor!" screamed a third.

There was something in his look and bearing which made them hesitate. The whisky red had almost faded from his face, and he looked sober and dignified. His features expressed disgust and contempt as he looked around the room, and then revealed pity as his eyes fell upon the red eyes and bloated faces of the crowd before him.

"Why, what ails ye, Sam?" inquired Tall Chicago, as they all stood there.

"I've come down to bid you good by, boys!" he replied removing his hat and drawing a clean handkerchief from his pocket.

"What! Hev yer turned preacher?" they shouted in chorus.

"Boys yer know I can lick any two of ye, but I hain't on the fight any more, and I've put down the last drop of whisky which is to ever go into my mouth! I've taken an oath. I'm going to be decent!"

"Sam, be you crazy?" asked Port Huron Bill, coming near to him.

"I've come down here to tell ye all about it," answered Sam. "Move the chairs back a little and give me room. Ye all know I've been a rough, and more too. I've been a drinker, a fighter, a gambler, and a loafer. I can't look back and remember when I've earned an honest dollar. The police hez chased me around like a wolf, and I've been in jail and the workhouse, and the papers has said that Ugly Sam was the terror of the Potomac. Ye all know this, boys, but ye didn't know I had an old mother."

The faces of the crowd expressed amazement.

"I never mentioned it to any ye, for I was neglecting her," he went on. "She was a poor old woman, living up there in the alley, and, if the neighbors had not helped her to fuel and food, she'd have been found dead long ago. I never helped her to a cent—did not see her for weeks and weeks, and I used to feel mean about it. When a feller goes back on his old mother he's a gettin' purty low, and I know it. Well, she's dead—buried yesterday! I was up there afore she died. She sent for me by Pete, and when I got there I seen it was all day with her."

"Did she say anything?" asked one of the boys, as Sam hesitated.

"That's what ails me now," he went on. "When I went in she reached out her hand to me, and, says she: 'Samuel, I'm going to die, and I know'd you want to see me afore I passed away!' I sat down, feeling queer like. She didn't go on and say as how I was a loafer, and had neglected her, and all that, but says she: 'Samuel, you'll be all alone when I'm gone. I've tried to be a good mother to you, and have prayed for you hundreds 'o nights, and cried about you till my old heart was sore!' Some of the neighbors had dropped in, and the women were crying, and I tell you, boys, I felt weak!"

He paused for a moment, and then continued:

"And the old woman said she'd like to kiss me afore death came, and that broke me right down. She kept hold of my hand, and by and by she whispered: 'Samuel, you are throwing your life away. You've got it in you to be a man, if you'll make up your mind. I hate to die and feel that my only son and the last of our family may go to the gallows. If I had your promise that you'd turn over a new leaf, and try and be good, it seems as if I'd die easier. Won't you promise me, my son?' And I promised her, boys, and that's what ails me! She died holding my hand, and I promised to quit the low business, and go to work. I came down to tell ye, and now you won't see me on the Potomac again. I've bought an ax, and am going up in Canada to winter."

There was a dead silence for a moment, and then he said:

"Well, boys, I'll shake hands with you all around afore I go. Good by, Pete—good by, Jack, Tom, Jim. I hope ye won't fling any bricks at me, and I shan't never fling at any of ye. It's a dying promise, ye see, and I'll keep it if it takes a right arm!"

The men looked reflectively at each other after he had passed out, and it was a long time before any one spoke. Then Tall Chicago flung his clay pipe into a corner, and said:

"I'll lick the man who says Ugly Sam's head isn't level!"

"So'll I!" repeated the others.

ALL the girls are becoming vegetarians. They wear turn-up hats.

The Way American History was once Written.

Mr. Bancroft is familiarly charged with writing the History of the Revolution in the interest of Washington and Franklin, and making them out to be perfect, while beslighting or misuses all the inferior actors. This charge has no foundation in truth. He is really very fair, and knows better than his critics do how to make allowance for failure, which could not but exist in such times. The charge has been nursed by the amazement, which naturally grew into indignation, first of individuals and then of that indefinite being, "the general public," when they all learned that the even seven years of the American Revolution was not an exceptional period, in which all who went and came were saints, Solons and Cæsars. By an ingenious system of writing history, under which the American youth of the first half of this century were brought up, all defeats were omitted, all treasons, except Arnold's passed over, all follies forgotten, all cheats forgiven, and one clear sky of virtue unclouded was the background of the whole narrative from the moment of Paul Revere's ride till that closing scene when amid the tears of thousands Washington sheathed his sword at Annapolis. The curious lad who read sometimes asked meekly he found how bravely Wayne took Stony Point, how it came into English hands at all, at neither book nor teacher gave any answer such impertinent questions.

"Onward still the Yankee lion bore,
And still the scattered Britons fled before."

Nothing, therefore, could well be more amazing to a race of grandchildren and great-grandchildren, as they read the four volumes of Bancroft's Revolution, than to find that this man blundered, that that one stole, that another was in the pay of France, and yet another was such a confessed fool that nobody trusted him with any authority. To learn that that assembly of sages, which men called the Congress of the Confederation, dwindled down into an assembly of incompetent twaddlers before the war was done, has been perhaps, a surprise as startling. But really we do not see the fault, in this view of the drama, or of its performers, is to be charged on the man who pulls the curtain aside. If these people were fools he could not make them leave serious records behind them. To take him to task for asking him to falsify history. His real offense seems to be, not so much that he discloses the imperfections of others the men who misled and foll, as that he proves them. — *Boston Advertiser.*

LARGE AND SMALL EARS.—Large ears, as has been observed, things in general, and denote broad comprehensive views and modes of thought; while small ears hear things in particular, showing a position to individualize, often accompanied by the love of the minute. Large ears are usually satisfied with learning the leading facts of a case, with the general principles involved, and pay strict attention to the enumeration of details, especially all repetition of the more important, is wearisome to them. People with large ears like generally, and are usually fitted to conduct large enterprises, in buying or selling out money in large sums; a margin rather than the quantity of goods of any sort to the dimensions of the measure specified, and giving would prefer to give with free hand without too strict calculation as to the exact amount. Small ears, on the contrary, desire to know the particulars of a story as well as the facts; take delight often in examining tiny specimens of workmanship; are disposed to be exact with inches and ounces in buying or selling, the extent at least of knowing the exact measure given or received. People with such ears would, in measures, prefer a retail to a wholesale business. — *Phrenological Journal.*

FEMALE EDUCATION.—Canada is becoming well furnished with institutions for the higher education of women. Toronto, Hamilton, London, Brantford, Whitby, Ottawa, in the Province of Ontario, have all large and well conducted ladies' colleges. It is now proposed to commence one in Montreal, to cost fifty or sixty thousand dollars. The Province of Quebec, where the need is more pressing, and where the means are abundant, it is hoped that soon the mountain brow at Montreal may be crowned with its "Trafalgar Institute," a splendid monument to the liberality of its founder, who is divesting himself of ten acres of the finest site in the city, worth a large sum, and who has also bequeathed a large sum, for its future extension and maintenance.

A WELL-ORDERED HOME is a paradise. No other earthly pleasure is equal to the contentment felt at the family fireside. The excitement of even successful business, attended with vexation; the enjoyments of the pursuit of fame is distracting; and even pleasures of knowledge are combined with bitterness. But the happiness of the fireside is unalloyed.

A TRAVELLER announced as a fact that once in his life he held people "minding their own business!" This remarkable occurrence happened at sea—the passengers being "sick" to attend to each other's concerns.

YOUNG FOLKS' COLUMN.

"Prevention is Better than Cure."

I was sitting beside
My destined bride,
One still, sentimental day;
"How I long," said I,
"But to make you cry,
And I'd kiss the bright tears away!"

Fair Cecily blushed,
Her voice was hushed,
I thought she would cry, to be sure;
But she lisped to me,
Pouting prettily,
"Prevention is better than cure!"

Popping Corn.

Isn't it fun to pop corn?—and when it is popped isn't it good? Most boys in the country grow a few hills of pop-corn to furnish them amusement in the winter evenings. There is some skill to be used in so simple a thing as popping corn. In the first place, the corn should be well dried, for when too fresh and soft it does not pop well at all. Then a wire popper with a long handle is the best thing to pop it in. A very small handful of corn, only about enough to cover the bottom, is put in the popper and the cover fastened down. Then we must heat the corn gradually, holding it at a distance from the coals, and when it is well heated through bring it nearer the fire, when the popping will begin. You must shake all the time, and the more the corn pops the faster you must shake to prevent burning. If the corn is of a good kind a very little will fill the popper when finished. Pop! how the little grains bounce about as they jump up and put on their snowy night-caps. Look at a popped grain. It does not seem at all like a kernel of corn; it is fairly turned inside out. What makes the corn pop and behave in this way? The chemist says that the corn contains an oil, and that the heat turns this oil into gas, and when the pressure of this gas gets strong enough to burst the grain, pop it goes. That corn contains oil may be new to you, but there is oil in it, and in some kinds of corn a great deal. Sixteen gallons of oil have been obtained from 100 bushels of grain, and very nice oil too. It has but one fault, and that is it costs too much to get it out of the corn; while the mineral oil lasts—the petroleum from which they get kerosene—it is not likely that we shall feed our lamps with corn oil. When you hear the grains go off with a "pop," and a "sput," just remember it is the oil that affords you all the fun, and turns the hard and flinty grains into beautiful masses of corn-starch, not only pleasing to look at, but wholesome to eat. — *American Agriculturist.*

Is it Good for the Boys?

Boys think tobacco is good—at any rate they persist in trying to use it though it makes them ill, as if they thought it would prove to be good. A boy nine years of age was recently brought in for examination by his mother, and having a twenty-two inch brain, we advised him never to touch tobacco, because it had such a tendency to induce the blood to the brain and keep the body lean and little. We remarked that if he ever expected to be a full-sized man he must keep clear of tobacco as he would of any other poison. The mother remarked that she had seen enough of the use of tobacco to make her very earnest in training her boy relative to its use. She said her husband used tobacco for ten or more years, becoming lean, bilious and sickly; that when he became so weak and ill that he could hardly walk or sit up, he would smoke several cigars a day. Finally the doctors informed him that he must quit using tobacco or go to his grave. This brought him to his senses and he resolved to try the experiment. From that day he used tobacco no more and in three months' time he went from a weight of 130 up to 185 pounds, and became as hardy, healthy and robust a man as could be seen in a day's ride. That woman thinks tobacco is not good for boys, and she is sure it is not good for men. She is determined that her boys shall be kept from it. If parents could realize the extent of the evil resulting from the use of tobacco, especially by youth, they would certainly refrain from setting them the bad example. The appetites of all tobacco-users are perverted, and they are in an abnormal condition of body and mind.

As LITTLE ALICE was walking around the garden with her great-aunt, a maiden lady, she caught sight of an insect upon the footpath, which she immediately ran and crushed with her boot. "Oh, Alice," cried the lady, "you should not have done that! Perhaps the poor thing was a mother, and had some little ones to provide for." After a few minutes' consideration the child said, "But auntie, perhaps it was only a great-aunt."

INDUSTRIOUS SCHOOL GIRLS.—The Cal. Citizen says: We know of a school in this county where the large girls go to the school-house on Saturdays and scrub it out nicely, and keep everything around the building neat and orderly. Such evidences of good will and industry are commendable, and we hope their teacher will be untiring in his efforts to give them a good education.

We'll give \$11 for the sight of the boy ten years old who can get out of bed in the morning and find his hat and shoes without half an hour's hunt.

GOOD HEALTH.

Fatal Effects of Filth.

X. A. Willard in a late address before the Connecticut Farmers' Convention discoursed as follows:—Many cases of fever have been traced to the consumption of swill milk; diseases have been traced to the milk drawn from cows by the attendants of sick persons; also to the impure water with which milk-pans were washed. Cows that drink impure water give unwholesome milk. Milk becomes impure from particles of dust falling from the cow's udder, which has been gathered by passing through sloughs or mud-holes. Farmers do not as a rule appreciate this matter, but if they can dispose of their milk or butter before any great change is effected, they think all responsibility is off their shoulders. The fine character of English cheese may be attributed to great care in all the operations, running from the conditions of the pasture, as to the cleanliness from slough-holes, through the stable, the spring-house, washing of pans, etc., to the production of the cheese. Cesspools or dead animals found upon the premises of English farmers are subjects for prosecution.

Putrid water is often the only kind by which the cow can slake her thirst, and yet it is productive of disease. We have a law to prevent watering milk, and yet a farmer is allowed to permit his cows to quench their thirst in the most filthy and poisonous water. Which is the most deserving of punishment? A case of diarrhea in a family was traced to the milk obtained from a cow confined in a stable without proper ventilation. While the cow is under a violent excitement, or in an exceedingly nervous condition, the milk becomes highly poisonous, as many cases have abundantly proved. A child fed from the milk of a cow that drank from water oozing out of a hog-pen was covered over with sores and pustules. Every factory for milk should have a schedule of questions for its patrons, covering the whole ground of cleanliness, treatment of the animal under all conditions, while in the pasture, at the stable, or in their passage from one to the other; condition of pasturage as regards grass, etc., and in every direction affecting the product of milk.

Deaths from Lamp Explosions.

There are so many circumstances under which accidents, more or less severe and often fatal, occur from lamp explosions, that people cannot be too studious in informing themselves with regard to such accidents, or too careful in seeking to avoid them. But a few days since the following case occurred at the house of a friend on Perry street, in this city. A gentleman entered a room late at night in which a kerosene lamp had been burning low through the evening, stepped towards it and was in the act of extending his hand to turn it down, and out; but just before his fingers reached the thumb-screw the lamp exploded with a loud report which sent it in fragments to every part of the room. Fortunately there was no fire set and no person injured. The next morning a careful examination of the fragments to learn the cause of the explosion led to the theory that the tube, which was rather a large one, had been fitted with a very small wick, thus leaving a large air space by means of which, in all probability, the movement of the air in the room, caused by the opening of the door, forced the small, flickering flame down into the tube far enough to communicate with and explode the gas which would naturally, under the circumstances, have accumulated therein.

In this connection it may be interesting, as well as useful, to call to mind the fact that Prof. Chandler, of New York city, says: "The total result for the year 1869, for the city of New York, which I myself have cut from newspapers, is fifty-two fatal accidents from dangerous kerosene, fifty severe and six slight—in all one hundred and eight persons, to my knowledge, from my own reading, have been injured by kerosene in one year."

EFFECT OF WARMTH IN PREVENTING DEATH FROM CHLORAL.—Dr. Brunton (who, by the way, has succeeded the lamented Anstie as editor of that excellent medical journal, *The Practitioner*) confirms the observations of Liebreich and others, and finds that the subcutaneous injection of a solution of chloral induces sleep, which is light and easily broken if the dose be small, but passes into coma if the dose be large. In dogs, considerable restlessness was observed before sleep came on, and the respiration was at first rendered rapid but subsequently became slow. A remarkable diminution of temperature was observed, which appears to be partly due to greater loss from the surface, caused by the vessels of the skin becoming much dilated under the influence of the drug, and allowing the blood to be cooled more readily by a low external temperature. It is partly due also to the diminished production of heat, which cessation of muscular action always induces. Dr. Brunton found that an animal wrapped in cotton wool may recover perfectly from a dose of chloral which is sufficient to kill it when exposed to the cooling action of the air, and that recovery from the narcotic action is much quicker when the temperature is maintained in this way, and still more rapid when the animal is placed in a warm bath, providing this is not excessive. The

DOMESTIC ECONOMY.

Care of Glass and China.

It ought to be taken for granted that all china and glass-ware is well tempered; yet a little careful attention may not be misplaced, even on that point; for though ornamental china or glass-ware is not exposed to the action of hot water in common domestic use, yet it may be injudiciously immersed in it for the purpose of cleaning; and as articles intended solely for ornament may not be so highly annealed as others, without fraudulent negligence on the part of the manufacturers it will be proper never to apply water to when beyond a tepid temperature. But when fractures take place, the best cement, both for strength and invisibility, is that made from mastic. The process, indeed, may be thought tedious; but a sufficient quantity can be made at once to last a life-time. To an ounce of mastic add as much highly rectified spirits of wine as will dissolve it. Soak an ounce of isinglass in water until quite soft; then dissolve it in pure rum or brandy until it forms a strong glue, to which add about a quarter of an ounce of gum ammoniac, well rubbed and mixed. Put the two mixtures together in an earthen vessel over a gentle heat; when well united the mixture may be put into a phial and kept well stopped. When wanted for use the bottle must be set in warm water and the articles to be mended must also be warmed before the cement is applied. The broken surfaces when carefully joined should be kept in close contact for at least twelve hours, after which the fracture will be scarcely perceptible and the adhesion perfect. The broken portion will also be as strong as the unbroken. The same cement may be applied to marble and even to metals. — *English Exchange.*

POISONED BUTCHERS' MEAT.—It is well that all housekeepers, and especially all engaged in furnishing meat for the table should be impressed with the undoubted fact that animals ought not to become excited before they are butchered, because their flesh is injured thereby, and it will spoil quickly. It is frequently the case that some mishap occurs when a hog or a fat steer is to be butchered, or when a hurt is given of great or less moment which puts the animal in deadly fear, and he is likely to break away; in which case men, boys, and dogs give chase, which makes matters decidedly worse, and if, finally, life is taken, it is under pitiable circumstances. There is no doubt that much of the butchers' meat of the large cities is injured by reason of long journeys, inducing a condition of fear and trembling or a high state of nervous excitement which can but affect the flesh. There ought to be special regulations to guard against this in all slaughter-houses, and on farms the utmost care and deliberation should be taken so that butchering may be quickly and successfully performed. — *Dr. Cross.*

ROLLED HERRING.—Herrings having hard roes appear larger and finer fish than those with soft roes; nevertheless the latter are to be preferred, as they really have more flesh and are more delicate. Having scraped the fish, cut off the heads, split open, cleanse and take out the roes. Take the herring in the left hand, and with the thumb and finger of the right press the back bone to loosen it, then lay the fish flat on the board and draw out the bone; it will come out whole, leaving none behind. Sprinkle the herring with pepper, salt and a little chopped green parsley; lay on the soft roe, roll up tightly, leaving the fin and tail outwards, and bind round with a piece of tape to keep it in shape. Have ready some water well seasoned with popper, salt and vinegar, and when it boils put in the herring and let it simmer for ten minutes, or until cooked. Serve it with butter, parsley or egg sauce poured over.

ARTIFICIAL CHEESE.—As a successor to artificial butter we have now an article of artificial cheese. The experiment of its manufacture has been made in Tompkins county, New York, it is said with great success; and the theory is simply that skim milk cheese, a food material of little value, may be so improved by the addition of foreign enriching material as to be much more valuable. The cream is therefore taken from milk and made into butter, and the skimmed material is made into cheese by the addition of a pure and wholesome, but cheap oil.

FRIED VEGETABLE MARROW.—Cut the marrow in strips an inch and a half long and three-eighths of an inch square; sprinkle freely with fine salt, and place the strips under an inverted plate in a basin. In a couple of hours put them in a cloth, and thoroughly dry them by wringing them in the cloth; then flour them in the same manner as whitebait, and throw them into plenty of boiling lard. As soon as they begin to take color drain thoroughly, sprinkle with salt and serve hot.

OYSTER OMELET.—Whisk four eggs to a thick broth; then add by degrees one gill of cream; beat them well together; season the eggs with pepper and salt to taste. Have ready one dozen fine oysters, cut them in half, pour the egg into a pan of hot butter, and drop the oysters over it as early as possible. Fry a light brown and serve hot.



PUBLISHED BY
DEWEY & CO.
J. L. DEWEY, W. B. EWER, G. H. STRONG, J. L. BOONE
PRINCIPAL EDITOR.....W. B. EWER, A. M.

OFFICE, No. 224 Sansome street, Southeast corner of California street, where friends and patrons are invited to our SCIENTIFIC PRESS, Patent Agency, Engraving and Printing establishment.

SUBSCRIPTIONS payable in advance—For one year, \$4; six months, \$2.25; three months, \$1.25. Remittances by registered letters or P. O. orders at our risk.

ADVERTISING RATES.—1 week. 1 month. 3 months. 1 year
Per line.....25 .80 \$2.00 \$5.00
One-half inch.....\$1.00 \$3.00 \$7.50 24.00
One inch.....2.00 5.00 14.00 40.00

Large advertisements at favorable rates. Special or reading notices, legal advertisements, notices appearing in extraordinary type or in particular parts of the paper, inserted at special rates.

No Quack Advertisements inserted in these columns.

The "California Granger."

Subscribers will please settle all arrears for subscriptions to the "CALIFORNIA GRANGER" at this office. All patrons of that journal are invited to forward their subscriptions to the PACIFIC RURAL PRESS.

SAN FRANCISCO:

Saturday, January 16, 1875.

TABLE OF CONTENTS.

GENERAL EDITORIALS.—The Alfalfa Parasite; Cheap Boxes for Plants; An Improved Harrow, 33. Ten Years of the Wheat Market; Broom Corn; "Our Departments"; Raisins from Placer County; Book Notices, 40. Silk Culture in 1874; Whitford's Potato Coverer; Fine Short-Horn Stock, 41.

ILLUSTRATIONS.—A California Weed—Dodder upon Alfalfa; Whitford's Potato Coverer, 33. David's Disintegrating Mill; Donohue's Improved Harrow, 41.

CORRESPONDENCE.—A Chapter of Tulo History—Staten Island; Hint to Dr. Gibbon; Berryessa Valley and Yountville, 34.

SHEEP AND WOOL.—The Wool Clip of 1874, 35.

THE SWINE YARD.—Choosing a Berkshire; Remedy for Lice in Swine, 35.

BEE.—A Paradise for Bees, 35.

THE DAIRY.—"The Cow Theory;" A New Cattle Disease in Jamaica; Holding up the Milk, 35.

PATRONS OF HUSBANDRY.—Progress of the Patrons in California; New Granges; Meetings; Etc., 36-37.

HOME CIRCLE.—Give Me the People (Poetry); The Other Side of the Story; The Advantages of Winter; Married Life; A Mush and Milk Social; Naming Babies; Happiness in the Family Circle; An Old Time Custom: Why "Ugly Sam" Reformed, 38. The Way American History was Once Written; Large and Small Ears; Female Education, 39.

YOUNG FOLKS' COLUMN.—"Prevention is Better than Cure" (Poetry); Popping Corn; Is it Good for the Boys? Industrious School Girls, 39.

GOOD HEALTH.—Fatal Effects of Fifth; Deaths from Lamp Explosions; Effect of Warmth in Preventing Death from Cholera, 39.

DOMESTIC ECONOMY.—Care of Glass and China; Poisoned Butcher's Meat; Rolled Herring; Artificial Cheese; Fried Vegetable Marrow; Oyster Omelette, 39.

HORTICULTURE.—Our Bay Nurseries—No. 3, 41.

THE VINEYARD.—Grape Culture, 42.

USEFUL INFORMATION.—Black-Leading Iron; Cheap Telegraphy; A New Paper Board; India-Rubber Tires; To Remove Nitric Acid Spots; Guns Discharged Without Caps; Insect Anatomy; Gum Arabic; How to Use a Grindstone; Cleaning Out-Door Statuary, Etc., 42.

AGRICULTURAL NOTES from various countries in California, 44.

MISCELLANEOUS.—Paper Manufacture, 34. Immense Photographs, 35. Australasian Intercolonial Exhibition; Salt on Wheat; Wagon Wheels and Draft, 42. The United States of Colombia; Ripened Leaves, 43.

8,104 Rurals.

Consolidating the subscription list of the California Granger with that of the PACIFIC RURAL PRESS, as announced last week, brings our list up to over EIGHT THOUSAND, and the heading of this article denotes the exact number of copies printed of this paper this week. We wish to raise these figures during the next three months to OVER TEN THOUSAND COPIES, and now earnestly solicit every reader to help in securing that increase. We need it to make the paper as good as we desire to make it; as useful and popular as we intend to make it; and to render it profitable to its publishers. Will you help us "on the home stretch?"

Ten Years of the Wheat Market.

In the RURAL PRESS of September 26, 1874, we published a table showing the fluctuations of the wheat market from July 1st, 1864 to September 23d 1874. We give to-day the table completed and brought forward to January 1st, 1875. It has been carefully prepared, involving a good deal of labor, which we are confident will be appreciated by our readers; and if any of these do not keep the file of the PRESS, we would advise them to cut out the table and put it in their scrap book for future reference.

Fluctuations of Prices for ten years in the San Francisco Wheat Market---Monthly Quotations from July 1st, 1864, to January 1st, 1875.

		1864.	1865.	1866.	1867.	1868.	1869.	1870.	1871.	1872.	1873.	1874.
January	HIGHEST.....	1 55	4 37½	2 20	1 80	2 75	2 05½	1 70	2 60	2 52	2 15	2 30
	AVERAGE.....	1 45	4 25	2 20	1 77	2 68	2 05	1 70	2 27½	2 27	2 02½	2 15
	LOWEST.....	1 25	3 45	2 06	1 50	2 55	1 52½	1 40	2 00	2 20	1 75	2 20
Feb'y....	HIGHEST.....	1 75	5 30	2 25	1 75	2 91	2 05	1 75	2 52	2 25	2 00	2 25
	AVERAGE.....	1 55	4 75	2 17½	1 71	2 90	1 90	1 70	2 40	2 17½	1 87½	2 02½
	LOWEST.....	1 25	3 90	2 10	1 37½	2 42	1 52½	1 37½	2 25	1 52½	1 80	1 85
March....	HIGHEST.....	2 40	5 25	2 25	1 94	3 10	1 85	1 70	2 50	2 25	1 98	2 00
	AVERAGE.....	1 85	5 00	2 17½	1 80	3 00	1 80	1 67	2 40	2 05	1 38	1 90
	LOWEST.....	1 60	4 75	1 85½	1 42	2 50	1 52½	1 27½	2 22	1 85	1 70	1 80
April.....	HIGHEST.....	2 50	5 25	2 25	2 22	2 70	1 77½	1 95	2 85	2 05	1 90	2 00
	AVERAGE.....	2 25	5 00	2 17½	2 00	2 82	1 72	1 62½	2 53	1 82½	1 82½	1 90
	LOWEST.....	1 70	4 77½	1 65	1 50	2 37½	1 32	1 47½	2 37½	1 60	1 75	1 80
May.....	HIGHEST.....	3 00	5 00	1 75	2 15	2 45	1 65	1 94	3 15	2 16	2 00	2 00
	AVERAGE.....	2 67½	4 75	1 70	2 10	2 22	1 64	1 66	3 10	2 05½	1 91	1 80
	LOWEST.....	2 45	4 62½	1 62½	1 65	2 10	1 17½	1 47½	2 60	1 75	1 75	1 70
June.....	HIGHEST.....	2 75	5 00	1 77½	2 00	2 50	1 65	1 98	2 60	2 16	1 85	1 85
	AVERAGE.....	2 60	4 75	1 70	1 77	2 08	1 57½	1 86	2 45	2 05	1 77½	1 77½
	LOWEST.....	2 30	1 75	1 47½	1 55	2 00	1 32	1 60	2 30	1 82½	1 60	1 70
July.....	HIGHEST.....	3 52½	2 00	1 60	1 82½	2 30	1 80	2 10	2 45	1 82½	1 82½	1 80
	AVERAGE.....	3 10	1 88½	1 50	1 72	2 00	1 75	1 98	2 22	1 82	1 74	1 65
	LOWEST.....	2 75	1 75	1 37½	1 50	1 80	1 56	1 70	2 21	1 42	1 60	1 67½
August..	HIGHEST.....	3 55	1 75	1 60	1 87	2 00	1 85	1 96	2 45	1 69	2 12½	1 80
	AVERAGE.....	3 50	1 70	1 50	1 77	1 85	1 80	1 88½	2 27	1 50	2 02	1 60
	LOWEST.....	3 25	1 60	1 40	1 65	1 52½	1 42½	1 67½	2 12½	1 25	1 72½	1 40
Sep't....	HIGHEST.....	3 65	1 96	1 55	2 15	2 05	1 77½	1 80	2 85	1 70	2 35	1 65
	AVERAGE.....	3 52½	1 87	1 45	2 10	1 96	1 75	1 75	2 37	1 62½	2 25	1 52½
	LOWEST.....	3 30	1 70	1 25	1 75	1 70	1 42½	1 55	2 35	1 40	2 05	1 05
October..	HIGHEST.....	4 37½	2 00	1 95	2 64	2 05	1 67½	2 05½	2 85	1 70	2 37½	1 87½
	AVERAGE.....	3 90	1 96	1 60	2 42	1 96	1 66	1 87	2 65	1 60	2 26	1 47½
	LOWEST.....	3 60	1 80	1 35	2 17½	1 27½	1 20	1 67½	2 62	1 40	2 15	1 37½
Nov.....	HIGHEST.....	4 37½	2 12½	2 07	2 64	1 94	1 64	2 17	2 80	1 80	2 32½	1 62½
	AVERAGE.....	4 25	2 05	1 80	2 53½	1 88	1 60	2 12½	2 75	1 65	2 27½	1 52½
	LOWEST.....	3 00	1 75	1 65	2 16	1 42	1 05	1 87	2 50	1 40	2 20	1 42½
Dec.....	HIGHEST.....	3 75	2 10	2 00	2 64	1 94	1 64	2 30	2 83	2 05	2 35	1 60
	AVERAGE.....	3 52½	2 05	1 87	2 53½	1 85	1 58	2 20	2 67	1 93	2 28	1 47½
	LOWEST.....	3 25	1 94	1 75	2 50	1 52½	1 17½	1 87	2 42	1 55	2 17½	1 35

Broom Corn.

This is another of the products that are now diverting the attention of farmers from the too exclusive culture of wheat. It is also another of the subjects upon which information has been asked of us. A subscriber writes us from Morced county asking, for himself and others, questions that include both the agricultural and commercial points of the subject.

The question occurs to us here whether it would not be well for farmers to reverse the order of the above-mentioned points, placing the commercial before the agricultural in considering the farming operations upon which they are to embark. It appears to us the best starting point in examining the subject of broom corn culture. From our observations of the commercial aspect of this enterprise we are disposed to class it among the least inviting of the new products that are now receiving the attention of the farmers of California. Probably it would have received little if any consideration from them at the present time had it not been that the stock of good brush throughout the country is now extremely light, and prices consequently unusually good. This condition of the broom corn market was produced by two unusual circumstances which are not likely to concur again for several years at least.

In the first place over production in this crop has become chronic, with consequent unremunerative prices. The South, which previous to the war had furnished an extensive market for brooms produced by New York and the New England States, now to a great extent grows its own brush and makes its own brooms. This materially augmented the surplus, which would have probably occurred from increased production, even though the standard markets had been retained. In 1870 a very large surplus of brush and brooms had accumulated, and many producers of broom corn turned their attention to other crops. Much of the land in Connecticut that has recently been used for growing tobacco was formerly devoted to broom corn. Along the Mohawk valley, New York, and in other localities, the production of broom corn was also decreased. Meanwhile the surplus stock was being worked off, and there would undoubtedly have been a fair demand for the product of 1874, even though there had been a good yield from every acre planted. But instead of this the crop was a partial failure; and this occurring when the old stock was pretty thoroughly cleaned out, sent prices up among dealers and manufacturers, and has created an unusual degree of interest in this crop on the part of producers.

This condition of the business has existed for several months—sufficiently long to afford ample time for preparation for next year's crop. From present indications we shall expect a material increase of acreage given to this crop the coming season. Yet even with this increase, coming as it will upon a healthy market, short of both brooms and brush, fair prices may reasonably be looked for. But although this product is one that may be discontinued as readily as it is taken up, still we do not believe that our friends who are thinking of embarking in it would wish to do so unless there were a probability of it being somewhat permanent; and as a permanent crop it ranks among those that never pay very largely, that are liable to over-production, and are in a measure controlled by purchasers.

It has been asked whether purchasers would be willing to contract for this crop? We are

assured that they would not. It was formerly so disposed of, but is now principally bought by samples. The better portion of the brush of 1874 has been selling at five cents per pound; but this, as was stated above, is unusually high. Three cents would be considered a fair price in ordinary seasons. About 800 pounds of brush and 2,000 pounds of seed per acre is a good average yield. The expense and labor of putting in this crop is just about equal to that of Indian corn. It also requires about the same amount and precisely the same kind of labor during its growth that is bestowed upon Indian corn.

Such is the commercial aspect of this matter as we look upon it. We may possibly be accused of throwing cold water over a worthy enterprise; but we do not gauge our views and efforts by any such probabilities. We write for candid, thinking men, and while we would rejoice to see this crop—if it will pay—introduced into the new farming schedule of California, we would desire to have our friends go into broom corn culture with their eyes open to the objectionable points as well as to the inviting features of the enterprise. If the matter is thoroughly sifted it comes simply to this: This is a standard product. In all seasons except those of over-production it is moderately remunerative. In these exceptional periods weak competitors—those who have not every advantage on their side—will be driven from the field. Then the question occurs, are we of this class?

In our next we will give the strictly agricultural points of the subject.

Our "Departments."

The readers of the PRESS have probably noticed that the special departments of our paper—the dairy, the poultry yard, horticulture, the horse, etc., contain a goodly proportion of fresh matter, written expressly for the RURAL PRESS by men who know whereof they speak. The value of such contributions over the indiscriminate clippings that too often fill up this space in agricultural papers, will not fail to be appreciated. By this means we have the benefit of local experience, and are not dependent upon imported rules and deductions that are partially, and sometimes wholly inapplicable to farming on the Pacific coast. Besides, the relations of the experience of the practical men, and especially of the experience gained under new and novel surroundings, is naturally free from that arbitrary autocratic air which pervades much of the agricultural information of the day. The discussions growing out of these varied experiences are, when conducted in a proper manner,—and the readers of the PRESS need not apprehend anything of an opposite character—both pleasant and profitable.

It is especially important at this particular time, when so much attention is being given to diversified farming, that all information relating to the departments that constitute this diversity should be freely communicated; and more especially the information that is of home production. We therefore desire still more contributors of this class; and if those of our friends who make a sort of specialty of any of these departments will send in their suggestions and recorded experience, we think we can guarantee courteous treatment. Their contributions will be placed before 8,000 readers, and they will have the satisfaction of aiding materially in the development of the agriculture of the coast.

TROUT AT THE UNIVERSITY.—The State Fish Committee have put up a building on the creek near the Botanical propagating works at Berkeley, and expect to have trout over this week.

Raisins from Placer County.

We have had placed upon our table to-day a box containing 10 or 12 pounds of as fine and perfect raisins as we ever saw of California growth; or in fact of any growth. Large bunches of well cured and well flavored raisins—such raisins as would sell in any market as quickly as any of foreign growth. These were grown by Mr. Otis Brown, on his ranch in the foot-hills in Placer county, some 20 miles above Sacramento, about two miles northwest of Rocklin.

We have before remarked the unusual advantages of our foot-hill ranches for the cultivation of raisins, as well as for fruits, nuts and oranges; but this exhibit of raisins, cured with only ordinary care in the sun, from muscat of Alexandria vines fully satisfies us that the cultivation of these vines and the proper curing of their products, presents one of the most profitable fields for enterprise that is furnished in our foot-hill regions.

From 900 to 1200 of these vines can be cultivated to the acre, and from five to ten pounds of raisins to the vine may reasonably be expected. Indeed we were informed by Mr. Brown that he gathered last year from some of his five-year-old muscat vines over 50 pound of fine grapes to the vine; and that from it and a half to five tons of raisins can easily be cleared from an acre of muscat bearing vine. With a liberal estimate for cultivating, picking, curing, boxing and freighting, it seems arguable that these raisins can be delivered to the grocer in New York at an expense of ten cents per pound to the producer. Estimating only a moderate advance from this cost five cents per pound, we have a net profit from \$250 to \$500 per acre.

On the other hand it requires three or four years time after putting out vines, before any income from them can be obtained, to the farmer, engaged in his usual pursuits, this waiting period can be economized, but with all the enterprise evinced by our farming community, it is yet far behind a proper appreciation of its surrounding advantage. We regret to say that to others than our farmers, are generally given the advantages derived from forward enterprises of this character. Men are too much inclined to do as their neighbors do, without exercising their reason, until accident rather than foresight exhibits to them opportunities of gain in new quarters. Then all hands rush in, and the market may sometimes be overdone. The profitable raising of wheat induced nearly all the farmers in the State give their exclusive attention to the cultivation of this product, while their labor later might have been given more profitably to the cultivation of other products.

All farmers may not find lands suitable to the cultivation of vines, but all having such and especially to those in the foothills, we would advise a giving of attention to the cultivation of the raisin vine. That raisins of a superior quality can be successfully produced from our soil is a fact that has been too thoroughly demonstrated to lose time in the discussion. That it pays surely and largely, seems to be beyond doubt.

Mr. Brown informs us that considerable tracts of foothill land well suited to this business, can be obtained of J. P. Whitney a large land owner in his vicinity, with whom most liberal arrangements can be made.

B Notices.

"A Free Lance the Field of Life and Letters," by Will Cleaver Wilkinson. The term "Lance"—gestive of warfare—is hardly in keeping with the character of the work before us, for critical portions of it, though plainly expressed and bearing the evidences of strict candor, are not unduly sharp. On the contrary the work will be favorably influenced thereby; very author introduced in this attractive volume. The book is made up of judicious selections from George Eliot's novels, from Mrs. Russell Lowell's poetry and prose, also from Bryant's poetry, with a review of translation of the Iliad, and a careful selection of the character and influence of Erasmus. All chosen and ample selections are given, and the above named authors, and a careful and ethical review is bestowed upon each. It is a neat and pretty volume of 340 pages and would be an appropriate gift to a person of taste. For sale by A. Roman & Co., 114 Montgomery street.

ON "E.—"Duss Reform," N. A. D.; "The at Poultry Show," M. E.; "Advantages of the Grange State Agency," L. B. R.; "Poeta Grange, with Song," F. P. H.; "Landscaping—No. 2," F. P. H.; "The Grange Socially," T.; "An Occasion at Yonville," W. H. B.; "Florists' Flowers, Etc.," J. C.; "Grange Wedding," W.; "Market Picts," F. P.

THE RURAL PRESS "CANNOT BE SUPPLANTED."—A leading California poultry fancier writes us as follows: "I am a sincere admirer and well-wisher of the PRESS; I cannot, if I tried, snub it, as far as I am concerned, by any other paper."

Silk Culture in 1874.

(Written for the Press by FELIX GILLET, Nevada City.)

(Continued from last week.)

I will now entertain your readers about

My Own Experiments

Made last summer. I raised several lots of eggs of various races: A lot of French yellow-annual of California reproduction, a small lot of yellow-annual of European origin, and a larger one of green-annual from Japan. First let me say this: I have written so many communications so far to the RURAL PRESS on this question of silk-culture, that by this time, I hope, your readers are satisfied that I have tried to the best of my ability to help found in this State, on a non-speculative foundation, this silk industry; so I will keep on telling them the plain truth, whether discouraging or not, or even against my own personal interest; the plain truth in my case, is, that with the yellow-annual races of California reproduction, I have totally failed—thanks to pebrine—but with eggs of European and Japanese origin, I have succeeded very well. An advantage, however, with me over other silk-growers who have likewise failed in meeting with a complete success, is, that I know positively why I didn't succeed with those yellow annual races already acclimated in California. I fed some of the worms separately with all kinds of leaves, but it was of no avail against the pebrine, and I had to throw away most of the worms belonging to these races. On the other hand, the worms of European origin, and 15,000 Japanese behaved splendidly; if I lost one per cent. of them, it must have been even accidentally, through spiders, yellow-jackets and lizards. They all accomplished molding almost simultaneously, not one being sick, and all spinning a cocoon. With all the races above mentioned I hardly had any double cocoons; and the cocoons generally were very hard and made of very fine silk. But since pebrine is without the least doubt in our midst, all I have to say is that until the epidemic disappears it is useless to raise silkworms from eggs of California reproduction, and that to succeed completely we must obtain eggs from abroad, particularly from Japan. That's what I am doing myself. In fact next summer I intend to raise one ounce of Japanese eggs, and one ounce of French annual from France; in this view I got cartoons of eggs direct from Japan, ten cartoons altogether of the finest green-annual, which have reached Nevada in a splendid condition.

Conclusion.

By all that precedes, your readers, I mean those interested in the question, must see that,

First, notwithstanding our splendid climate and healthy food, the pebrine, the very epidemic which has been devastating the cocoons of Europe, Africa, Syria, etc., for the last twenty-five years is raging here also, breaking out as in those infected countries, among the eggs raised in the State.

Second, that it renders the eggs produced in California, at least those of French yellow-annual races, diseased, pebrined, and therefore unfit to either be exported or even raised here.

Third, that, consequently, the only way of establishing in our midst the silk industry, is to raise silkworms for the cocoons or raw silk, and not for the eggs.

Fourth, that to raise successfully silkworms, we must have "healthy" eggs; eggs at least exempt of corpuscles. In France and Italy silk culturists are divided into two camps concerning the causes and remedies of this dreaded scourge, pebrine; some asserting that all the trouble comes from the food, which, they say, is too watery or diseased; others that the races, moths and eggs, are diseased, but the food good enough. If I was to decide it by my own experience, I would be inclined to believe that the latter are right; for instance, I do not think that anywhere else they can have a better, more substantial, healthy food, than that which we raise on the dry hills of California. I have resorted to all kinds of mulberry leaves, but I did very little toward even impeding the progress of the disease. I am satisfied, therefore, that the whole trouble lies with the moths and eggs. In fact, if it was with the food, it ought then to affect in a similar manner the other worms which I very successfully raised, in the same room, and side by side with the sick ones. In evidence of that fact, look at the so-called epizootic which over a year ago raged so badly in California among our horses. Did not that epizootic travel quicker than by steam, breaking out almost simultaneously all over the State? It was not certainly caused by the hay and barley the horses were fed with, nor by contagion; and the way it did originate and spread from 4,000 miles away, is yet a mystery. So it is with silk-worms here; the food is all right, but the fatal epidemic is either among the worms, or the germ of it in the very air they are breathing.

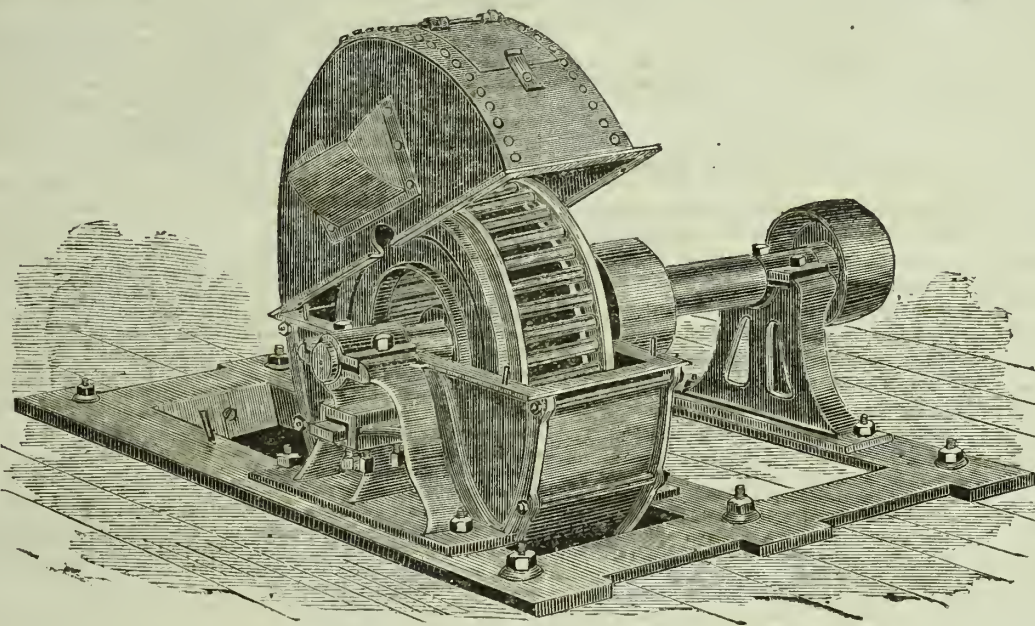
As I am going next year to raise a rather large number of worms, I will let you know at that time the result of my experiments, and whether the pebrine will have or not disappeared from our midst.

A bank will soon be organized in Santa Clara.

Whitford's Potato Coverer.

The implement represented by the annexed engraving is designed to be used chiefly as a furrower and coverer for potatoes, but it is also well adapted for hilling and ridging for sweet potatoes and other root crops. Our illustration represents it as arranged for cutting the furrows. The furrow guides, A, having a steel share on their forward ends, form two parallel furrows, the bottoms of which are right angles. It is claimed that a man can drop the seed much faster in this furrow, as the potatoes will not "jump," and must fall into line.

After the furrows are made and the potatoes dropped, the implement is turned over, bringing the plates, C, down. This is quickly done, by first removing the handles and detaching the thills. The handles are made reversible by means of the tie-brace, B, which is hinged to one transverse piece of the frame, the upper end of which enters a socket on the handles and is secured therein by a set screw. The front portion of the handles is attached to the other transverse bar by a bolt. After the handles and thills are readjusted the machine is drawn by the horse so as to bring each furrow midway between the ridging plates, the soil is gathered between the latter at their front



IMPROVED DISINTEGRATING MILL.

ends, and delivered at their contracted extremities, thus forming a neat ridge. The plates and guides are adjustable to any desired width of ridge or space between the rows. When it is desired to change the direction, as at the end of furrows, it is only necessary to lift the handles slightly, when the tongue, D, will enter a recess formed at the front end of the handles, and, bearing against it, will enable the horse to assist in lifting the machine clear of the ground, so that it can be turned without difficulty. In this cheap and simple machine the inventor—who we are informed is a practical farmer, has united three useful implements—two plows and a ridger. And when it is remembered that, with rare exceptions, our farmers raise potatoes by the old slow hand processes of a hundred years ago, it will be seen that this invention will supply a long felt want.

This implement was patented August 4th, 1874, by Le Roy Whitford of Harmony, Chatauqua county, New York. L. B. Cox & Co., 197 Water street, New York, are to manufacture the potato coverer.

THE SQUIRREL STRONG IN DEATH.—On the University grounds some thorough sub-soiling has been done recently, and conversing with parties in relation to this matter we were informed of a curious circumstance connected therewith. The depth at which the plow was running was about the level at which the squirrels had taken up their winter quarters, and a good many of these "dives" were broken up by the ruthless plowshare. Sometimes the point of the plow would come in contact with a squirrel, when the plow would be stopped at once. The subsoil being of solid clay, without seam or crevice, nothing but the clean, sharp point of the plow could pierce it, and when it struck a squirrel the carcass would form a tough ball, which so effectually obstructed its course that, as our informant puts it, "all the horses in California could not move it." Consequently the plow had to be lifted from the furrow and the carcass removed from its point.

Fine Short-Horn Stock.

We take pleasure in calling the attention of the readers of the Press to the advertisement in another column of our paper of Col. Peter Saxe & Sons, importers of fine Short-horn stock. Col. Saxe is widely known as an importer of choice stock, and is probably second to no importer in California in regard to the amount and quality of stock which he has introduced into the State. From our conversation with the Colonel, and from recent interviews with other leading stock men, we are convinced that California is not behind any State in the Union in changing from common to choice stock. In achieving this reform much credit is due to the men who have furnished the requisite means, judgment and pluck, to inaugurate and push forward this important movement; and it should be noted here, that the class to whom we refer have manifestly recognized the peculiar wants of California in this respect; and that while they have imported liberally of stock, they have not imported with it, preferences and notions not adapted to the wants and condition of the country.

Col. Saxe & Sons have some recent importa-

HORTICULTURE.

Our Bay Nurseries—No. 3.

Maple Leaf Nursery.

S. M. Newsome, proprietor. Depot and green-houses corner 3d avenue and 12th streets, East Oakland. The nursery proper occupies five acres; and is devoted to fruit and evergreen trees, shrubs, flowers and green house plants. Mr. Newsome makes a specialty of the latter. He is extensively engaged in raising Australian gums, cypress and almost every species of evergreen. Mr. N. imports many new and rare plants, and also seeds, of which he keeps a fine stock.

Nurseries of W. F. Kelsey.

The depot of supplies and green houses are situated on West Telegraph avenue, near Sycamore street, Oakland. The two principal nurseries are near Berkeley, occupying 75 acres and are among the largest and oldest in the State, having been established in 1850. They are devoted to fruit trees, deciduous shade trees and evergreens.

The list of fruit trees embraces almost every variety known, and in connection with the nurseries is an extensive orchard where samples of the fruit may be seen. The stock of shade trees is very complete. The nursery in Oakland is devoted to tropical, semi-tropical, green-house and hardy plants. There are five large green-houses which are well kept by the skillful gardener David Tisch, a man earnestly devoted to his profession. The stock of oranges and lemons is very large for this locality; but the trees are found to do well in the vicinity of Oakland, and it is being proven that they flourish in many portions of the State hitherto deemed too cold for them. Nurserymen find the demand for these trees increasing.

Mr. Kelsey has been fortunate in securing a fine lot of the Norfolk Island pine, also the Oakland cypress. The latter is something new and appears to be one of the finest evergreens. It resembles the Monterey cypress to some extent, but is not so dark a green, and the foliage is softer and finer. During a recent visit to Santa Barbara we noticed a fine lot of these plants in Mr. Sexton's nursery. They were purchased of Mr. Kelsey who, we believe, has

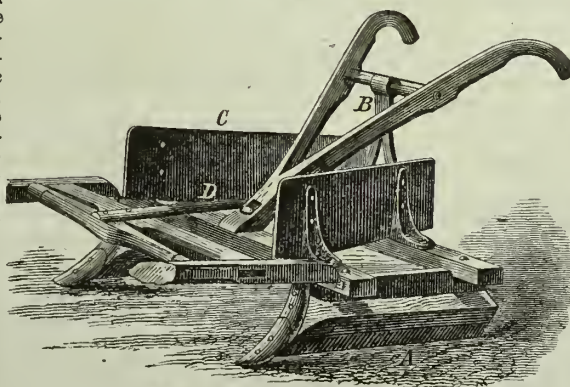
the monopoly of this truly beautiful evergreen, which was brought from an island in the Pacific. The stock of pines is unusually large, and the plants very fine; the same may be said of the Lawson and Monterey cypress. As the teachings of the Grange are more widely diffused and the love of the beautiful encouraged, the demand for these rich and delightful home adornments is largely increased, and no one can visit these delightful spots around our bay and not be charmed and deeply interested in this truly interesting pursuit.

In connection with this nursery is the Kelsey hotel, which is becoming a favorite summer resort. Besides the hotel proper, there are six beautiful cottages situated in different parts of the grounds and almost buried in evergreens. Six more will be built the coming summer, making the facilities for accommodating guests very extensive, and furnishing one of the most charming rural retreats on the coast. The walks, drives and recreation grounds are unsurpassed; and all things considered, this must be one of the attractive spots both for the tourist and pleasure seeker.

David's Disintegrating Mill.

The David mill or disintegrator proper consists of several cylindrical cages formed of round bars secured to disks and annular rings, one inside the other, and made to revolve in opposite directions, but presenting no scrubbing or grinding action. The materials to be disintegrated are received into the inner cage, and by the rapid revolving of the cages a centrifugal force is created that instantly projects the materials through the cages; disintegrating them by a system of free blows, from which no friction ensues. At this time—less than four years since the makers commenced offering the mill to the public—fully \$150,000 worth of the mills have been put in successful operation, and the very fast growing demand for the mills indicates that several of the largest machine works may soon be exclusively engaged in their manufacture. This being the view of the patentee, Messrs. Denmead & Son, the makers, are about to offer the territory on our side of the mountains for sale.

Very small mills are being prepared for grinding corn, etc., for feed. A 3-foot ordinary clay or bone mill will grind 120 bushels of corn per hour. Parties desiring information concerning these mills or patent rights may address Denmead & Son, Baltimore, Md.



Whitford's Potato Coverer.

chanic and farmer, Mr. Rice has followed up his improvements so that he can now send out his machines with confidence in their various parts. The machines of this year will be improved in a measure over his former issues. All but three are sold. The boiler in his shop is ten years old, and has been heated by straw fuel for over two years. A novelty to us, it seems to work like a charm. Mr. Rice's invention and its success ought to be more widely known.

THE SQUIRREL LAW.—Farmers outside of Contra Costa and Alameda counties would doubtless like to know how the rodent nuisance is being abated within the "limits of the law." Will correspondents inform us? Mr. D. D. Mann, Inspector of Palamires district, near Haywards, says the work of destruction is going on favorably; that the representatives of the railroad land, with the settlers generally, are poisoning the "varmints" by the wholesale. It is important to all citizens in squirrel-infested counties, that this first effort of extermination be a thorough one. Now is the time for all interested to be united and vigilant. See that every inspector and landholder does his duty squarely.

THE VINEYARD.

Grape Culture.

EDITORS PRESS:—This branch of business is every year becoming of more importance to the people of California, and hundreds of men are now looking to raise grape culture as being the best business for them to engage in. Many of these, having no experience with the crop, every naturally look to the agricultural books and papers of the present day for information on that subject. Agricultural books are mainly written by scientific men, who have gained their information more by reading than by actual experience, consequently their modes of doing things are so expensive that men of small means cannot follow their advice.

This leads me to speak of the RURAL PRESS, whose pages are filled with the experience of the practical men of this State, and from the reading of which farmers may obtain more practical ideas in one year than can be found in all the books in existence. I do not say this to flatter the editors, but because I have never found book nor paper so filled with common sense ideas as is the RURAL PRESS. Farmers, try it for one year, and my word for it, you will no longer do without it.

There are certain natural laws governing the growth of trees and vines which should be understood by all fruit growers. One of which is, that all things being equal, the roots and branches will grow in the same proportion. Wide-spreading tops will cause wide-spreading roots. A tall, slender tree, with but few branches, will have a deep tap-root with but few side roots. Cut off the top of this tree and it will soon make a spreading top, and you will invariably find that its roots will grow correspondingly. Then again, take a well balanced tree, and cut off the greater portion of its top and branches, and it will make a tremendous growth the following year; and this simply to gain an equilibrium or an equal balance between the roots and its branches; but so soon as this is done the tree is checked in its growth, and then grows more moderately.

This is the main cause of well cultivated fruits being better than those in a natural state. Fruit trees in a natural state do just what nature intended them to do; that is, produce seeds after their kind. But when trees are judiciously pruned and thinned out, this gives their roots an over supply of sap in the proportion to their branches, so that when they commence to grow, there being a less number of fruits, they receive a greater share of sap, and consequently grow larger and better.

I have been led to make the foregoing and following remarks by reading a letter on this subject in the RURAL PRESS of December 16th, 1874, written by W. S. Sanders. He seems to think that in planting cuttings the more vine is buried in the ground the more roots it will produce. Now, Messrs. Editors, judging from my own experience, I think he was never more mistaken. A cutting is not a rooted vine, and one planted twelve inches deep, perpendicular, will produce as many roots as ten feet of vine buried in a trench, simply because the roots and the branches must grow in the same proportion.

Mr. Sanders says of pruning: "Prune so as to leave three or four primary buds on each bunch," etc. In following this advice there is no provision made for a renewal of wood for next year's crop. Not only that, but it will so spread the tops of the vines that in a few years they will meet between the rows. To avoid this cut half of the branches to two buds each, and the remainder to five or six buds each, or as many of them as are required to procure a full crop of fruit. At the next pruning time cut off the long stems of the previous year close up to the main stalk or vine. At this time there will be found two branches on each of the short spurs; of these cut half to two buds and the remainder to long stems or spurs, as before, and so on from year to year. By this plan of pruning the vine is kept within due bounds, and still has plenty of the best buds left to produce bountiful crops of fruit each year.

Mr. Sanders says of planting the vine: "Make each cutting at least three feet long. All of this, except one bud, should be buried under the ground. Each vine so buried will throw out a sprangle of roots, thereby giving the vine a much greater growth than by the old way of using short cuttings, only half buried in the earth," etc. Now, Messrs. Editors, this plan of cutting the vine is as "old as the hills," and has been practiced by European vinegrowers for centuries. But the Americans are a progressive people and have long since learned better and cheaper ways of planting the vine.

In an experience of 16 years with the vine in California and having rooted and taken up thousands of vines, I have failed to see wherein long cuttings, buried in trenches, had any advantage of short cuttings properly planted. On the other hand, I have invariably found that cuttings planted perpendicular, from 12 to 15 inches deep, had better roots and more of them (because they stood upright) than when planted

as Mr. Sander's advises in trenches. I have also failed to see roots produced from the bud of the vine. Cuttings of any kind, whether of grape or other wood, do not take root from their buds, but from the bottom end of the cutting.

Mr. Sanders' plan of planting the vine is tedious and expensive, not only in planting, but vines thus planted must be staked to induce them to grow upright, and must be kept tied to the stakes for four or five years. Their roots being all on one side, their tops have a tendency to fall over in the opposite direction unless tied to stakes.

The better and cheaper way to plant vines is to take cuttings about 20 inches long, plant them perpendicular, from 12 to 15 inches deep, leaving five or six inches above ground. The latter is to form the head of the vine; by this way of planting, there is no need of stakes. The vines being perpendicular will root even all around like a tree, and will stand alone much better than when buried in a trench, while the expenses will not be more than one-fourth as great.

In the years 1865-6-7, I superintended the planting of Lone Hill vineyard, of Santa Clara county, owned by D. M. Harwood, and they all were planted in the manner I am here describing, and to-day, it has the name of being one of the finest vineyards in the State, and there never was a stake in it. At Riverside we have thousands of vines planted in this way, all doing well and yielding the second year from planting from four to six pounds of fruit to the vine, (variety muscat Alexandria.)

We have plenty more land of the same sort, and plenty of water so that others may come and do likewise. P. S. RUSSELL.

Riverside, Jan. 7th, 1875.

Australasian Intercolonial Exhibition.

The intercolonial exhibition of the Australian Agricultural Society will be held in Sydney next year, opening on the 9th of April. Mr. Wm. Westgarth, Commissioner from Australia, has recently come to this city in order to procure samples of California products and manufactures, machinery, agricultural implements, etc. Mr. Westgarth has brought with him letters to many of our prominent merchants, and has already accomplished considerable. The schedule of exhibits embrace both agricultural and non-agricultural exhibits, including the fine arts, apparatus and application of the liberal arts; in fact, all the products and industries of the colonies. A section has been set aside in the exhibition for the articles from California, and it behooves our manufacturers and artisans to hestir themselves and get up a creditable display. Viewed simply as a matter of business alone, it would be of benefit for us to send a large exhibit, as the communication between the two countries is likely to be much more intimate in the future than in the past. It is Mr. Westgarth's intention to establish, after the conclusion of the exhibition, an agency in Sydney for the exclusive sale of California products; and in view of the regular steamship communication now established between the two countries, the enterprise promises to be thoroughly successful. Communications for Mr. Westgarth should be addressed care of J. C. Merrill & Co., or to him at 619 Pine street, and he will gladly make arrangements with those who may choose to become exhibitors.

He will give his personal attention to the display and will take charge of shipments from here. He leaves from here on the steamer which starts about the 30th of January, and goods which are to be sent should be ready to go with him.

Salt on Wheat.

Some soils are benefited by an application of salt, but we do not believe there is any efficacy in it to keep wheat from freezing out. Thorough drainage is the remedy for that. Everyone knows, or ought to know, the value of ashes as a fertilizer. Salt furnishes two of the most important elements of the ashes of plants—sodium and chlorine, and hence it will be valuable to lands deficient in these. Every farmer must determine for himself whether his land needs salt or any other substance. Sow salt on alternate strips of your wheat, marking where you sowed and where you did not, and then observe the difference in the crop next year. Where the constituents of salt are wanting wheat will almost always lodge, even though the crop of straw be light. If you have been troubled with this salt will be useful, though we should prefer to mix it with the manure.

Professor Mape's famous receipt is: One bushel salt, three bushels of manure; let lie under cover four months, and then mix it with one cord of muck. This is no doubt a valuable mixture for sandy land. Where salt is sown broadcast do it after the wheat is sown, giving from one to five bushels per acre. Mr. Geddes, of New York, in an essay on salt as a manure, comes to these conclusions: "Some soils have enough of salt, and more added does an injury. Lands away from the sea coast are greatly benefited by light applications, but heavy quantities are injurious even there."—Ohio Farmer.

WAGON WHEELS AND DRAFT.—Experiments recently made in England indicate that wagons are most easily drawn, on all kinds of road, when the fore and hind wheels are of the same size, and when the pole lies lower than the axle.

USEFUL INFORMATION.

Black-Leading Iron.

In these days of general diffusion of chemical knowledge it is scarcely necessary to state that the "black lead" or "plumbago" of commerce, is not lead at all, or any compound of its composition. Neither is it a carburet of lead, and that it includes no lead whatever in iron, as is sometimes stated. It is simply carbon. Pure plumbago is pure carbon, impure plumbago is impure carbon. Its proper name is graphite, that is, writing stone. We may venture to describe it as the softest of all true solids, and have often pondered wonderingly upon the apparently unnoticed, but very curious chemico-mechanical paradox that the hardest and softest of all the solids existing upon the earth are, chemically speaking, the same substance, graphite and the diamond being both carbon.

It is this wonderful softness, combined with persistent solidity, that enables us to smear it over any other solid surface, and thus obtain a solid paint, all body and no medium. For the class of castings to which it is commonly applied where its application can be readily repeated and where it is not exposed to the direct action of water it is unrivalled as a protecting film for iron. Its chemical action, so far as it does act when cold, is reducing, or anti-oxidizing. Its color and tone are so similar to iron that Mr. Ruskin himself could scarcely make any aesthetic objection to its use, and the film is so marvelously thin that it obliterates nothing. There does not appear to have ever been any attempt to estimate the thickness of a well brushed film of graphite, but it would seem that if a hundred strata of such films could be piled in contact with each other, their combined thickness would fall short of that of the thinnest gold leaf.

CHEAP TELEGRAPHY.—President Orton's report of the affairs of the Western Union Telegraph company is calculated to inspire much hope in those who believe that the Government can run the lines at cheaper rates to the public. On the first of January, 1873, a reduction of more than 50 per cent. was made in the maximum tariff between the most remote points on the company's line. This, though occasioning a temporary loss of revenue, has resulted, during the last few months, in a large increase. The reduction was from \$7.50 and \$5 to \$2.50. President Orton now adds that, owing to Messrs. Edison's and Prescott's quadruplex apparatus, which is, at the present time, working successfully between Chicago and New York, and by which two messages are sent in the same direction and two more in the opposite direction simultaneously on a single wire, he believes it practicable before long to cut rates down still lower, and ultimately to establish but four rates for day messages, namely, twenty-five, fifty, seventy-five cents, and one dollar, with half charges (except for the lowest) for night messages.

A NEW PAPER BOARD.—A new method of manufacturing paper board, to make that article more generally useful and durable, is described as follows: When a sheet of paper is immersed in an ammoniacal solution of copper, and then dried, it is said to be quite impregnable to water, and does not lose this quality even though the water be boiling. Two sheets of paper thus prepared, and passed through a cylinder, adhere to each other so completely as to be quite inseparable. If a large number of sheets so prepared be cylindered together, boards of great thickness are obtained, the resistance and cohesion of which may be increased by interposing fibrous matters or clothes. The substance so prepared is quite as hard as the closest grained wood of the same thickness. The ammoniacal solution of copper is prepared by treating plates of copper with ammonia of the density of 0.880 in contact with the atmosphere.

INDIA-RUBBER TIRES.—Messrs. Bird & Co., of London, have lately brought into notice a new and improved wheel, with India-rubber tire, which is claimed to be capable of wearing as long as, or longer than an iron tire, and to have the great advantage of perfect noiselessness and absence of injurious jar. The draft of the carriage is said to be reduced by the use of this tire nearly one-third. It appears to be simply a tire of solid rubber, fastened on the exterior of an ordinary wheel by bolts, such as are used with iron tires, and it may be thinner than the usual kind, merely serving the purpose of a band to hold the wood work firmly together.

TO REMOVE NITRIC ACID SPOTS.—The yellow spots produced by nitric acid may be removed from brown or black woolen goods, while fresh, by repeatedly dipping them into a concentrated solution of permanganate of potassa and then washing them with water. The yellow spots on the hands may be removed in the same way, the brown stain produced by the permanganate being removed by an aqueous solution of sulphurous acid.

THE United States is now paying over \$100,000,000 per annum for freight and passage on foreign ships, to be carried abroad and expended in the employment and support of other peoples beyond a fair percentage of what should go to foreign vessels, estimating on the tonnage and travel of each respectively.

Guns Discharged Without Caps.

It seems almost impossible that a gun should be discharged without the presence of either cap or flint; yet a well authenticated case of the kind seems to have occurred, recently, near Napa, as narrated by the Register of that place. It seems that Benjamin Bergin, being out with some companions duck shooting, had just fired one barrel, and hearing the shot loose in the other, turned up the gun into his left hand to pour out the charge, taking the precaution to first remove the cap. Notwithstanding the absence of the cap, the gun went off and made a bad wound in his left hand. It seems almost incredible that a gun could be discharged after the cap is removed, but the phenomena is accounted for by experts on the hypothesis that the percussive quality of the cap had—the weather being damp—adhered to the nipple of the gun and been sufficient to explode it on being jarred incident to shaking the charge out, the hammer being down. That this theory is a correct one, is confirmed by a similar accident which occurred a few days previous to one of the Asylum apprentices, who had been shooting, and having both charges left in his gun, thought to save them by leaving them in till next day, when he would go out again. To this end he removed both caps, let one hammer down carefully, and was lowering the other, when it slipped from his thumb on to the nipple, and discharged the barrel. The other barrel went off at the same instant, as is supposed, by the shock of the first one—both discharging their contents up through the roof. The youth had a narrow escape, and the two accidents confirm the theory of the total depravity of guns, "dangerous without either lock, stock or barrel, because a man once whipped his wife to death with a ramrod."

INSECT ANATOMY.—Dr. R. U. Peper, the naturalist, in giving an account of some microscopic investigations, in which he has recently been engaged, says: I have managed to make a very careful dissection of the tongue of a house fly, and now I can show the so-called *tracheae* on the tip of the tongue very neatly dissected by my own hand. I can also show a very fine specimen of a parasite from a *blowfly*, with all its organs perfect. I have noticed what I think is a fact that the flies which survive the winter are all, or nearly all, perhaps females; and have just dissected a house-fly, in which I find 106 eggs. I have also demonstrated what is, perhaps, an ontological discovery—that the central lancet of the horse-fly is tubular. For what reason, as he has a sucker from which he draws blood from the wound he makes? The lancet of the horse-fly—the female, for the male has no biting organs, is a compound instrument. When closed it presents a point; when open it shows several points radiating from its base. The two outside lancets have rows of teeth, like those on the jaw of a shark. I suppose the creature introduces the lancet shank, like the sticks of a fan. When it is withdrawn it is opened in the process, and thus makes that ugly tormenting wound which these insects inflict upon horses and cattle. The hollow lancet perhaps carries some kind of fluid to poison the blood or render it more fluid. There is, however, no gland to be found by which this fluid is secreted. That the lancet is hollow, however, I have shown without a question, as I have contrived to make fluid pass through it.

GUM ARABIC.—This useful product comes from Morocco, instead of Arabia, as its name would imply. About the middle of November, that is, after the rainy season, a gummy juice exudes spontaneously from the trunk and branches of a species of the acacia in that country. It gradually thickens in the furrow down which it runs, and assumes the form of oval and round drops, about the size of pigeons' eggs, of different colors, as it comes from the red or white gum tree. About the middle of December the Moors encamp on the borders of the forest, and the harvest lasts a full month. The gum is packed in large leather sacks, and transported on the backs of camels and bullocks to the seaports for shipment. The harvest occasion is made one of great rejoicing, and the people for the time being almost live on gum, which is nutritious and fattening. Such is the commercial story of this simple article.

HOW TO USE A GRINDSTONE.—Common grindstone spindles, with a crank at one end, are open to the great objection that the stone will never keep round, because every person is inclined, more or less, to follow the motion of his foot with his hand, which causes the pressure on the same to be unequal. The harder pressure is always applied to the very same part of the stone, and will soon make it uneven, so that it is impossible to grind a tool true. To avoid this, put in place of the crank a small cog-wheel of 13 cogs, to work into the former. The stone will make about .07 of a revolution more than the crank, and the harder pressure of the tool on the stone will change to another place at every turn, and the stone will keep perfectly round if it is a good one. This is a very simple contrivance, but it will be new to many of our readers.—Cabinet Maker.

CLEANING OUT-DOOR STATUARY, ETC.—It is recommended, in cleaning moss-covered statuary in gardens, etc., first to kill the vegetation by the application of petroleum or benzene, which will not injure the stone, and to remove it when dry by brushing, finally rubbing with a rag.

The United States of Colombia.

We had a conversation this week with a gentleman who has recently returned from the United States of Colombia. He speaks hopefully of the prospects of the Americans who are opening up the gravel mines in the interior. The gravel mines owned by Weaver & Co. are 30 miles from Barbacoas, on the Nyambe river. They have plenty of water for hydraulicizing and have one monitor at work, employing seven or eight men. The other mines are 15 or 20 miles above Barbacoas, and a company of San Franciscans expect to take down the requisite machinery to work them. There are some five or six companies, some getting their claims in order to work. Brown & Gentry have a large estate on which one monitor is at work, and three or four more will be added. These mines are on the Yacula river. The gravel is pretty good, and where water can be had, will pay well. Some of the gravel will pay handsomely. Labor is pretty cheap and men can be employed for from 37½ cents to \$1 per day and board. Weaver & Co. pay 37½ cents and board for common men and \$1 per day and board to drifters. Most of the companies have just started in and have done little as yet. On all the large estates the natives mine in a rude way for a share of the profits. All the mines pay well where the water can be brought on; some, however, have very little water.

The gentleman who gave us this information brought up with him a number of articles from the country which are interesting. He showed us the Brazil nuts in the gourd-shaped cover in which they grow. Also, some "milk" of the India-rubber tree which grows up in the mountains. He brought some coffee from the Cauca valley, which is of excellent quality; an American there has a plantation of 70,000 coffee trees which yield an average of 3½ pounds to a tree. The coffee grows there plentifully and his trees are of such a growth that he is continually gathering, as some trees are in while others are out of season. The owner of this plantation also has 160 acres in sugar cane. This sugar cane takes 15 months to mature after each cutting, the roots of course remaining. We were shown also from the Cauca valley, some excellent wild cotton. This valley is about 48 miles from the coast on an air line, and has an elevation of 3,000 feet. The cotton has a first-rate fibre. It has never been cultivated there to any account. Our informant, a practical cotton grower and manufacturer, thinks the Cauca valley the best locality for an investment for a cotton mill there is in the world. The natives would cultivate the cotton if there was a demand for the product. A small cotton mill of 50 looms would do exceedingly well, and our informant thinks it would clear \$600 per day right along. Common cotton cloth, without print, could be sold there in quantities at 20 cents per yard. There is plenty of water power to run a mill and plenty of ground to be had to cultivate the cotton, and the product would meet with ready sale. We should judge from the figures shown us, that this favorable opportunity will not long be idle, for some enterprising American will take it up. We were shown among other things several of the "ivory nuts" grown there, from which small articles are made. Also a species of cloth, resembling the Kapa cloth of the South Sea Islands, made from the inner bark of a tree. It is tough and thick, and in a cold climate would do very well for clothing. Some of the wood grown there is very hard and fine grained.

There are no roads in the mining part of the country, except the trail from Barbacoas, all the travel being done in canoes or on the backs of Indians. The trail to the mines has been traveled for 300 years, and worn down in places from ten to forty feet. The government is now building a road from Barbacoas to the interior 80 miles long, 20 miles of it being finished, and 200 men being at work on the rest. To the upper mines they go by the trail. The road will give access to the mines so that horses can be used. To the Cauca valley there is a trail or small road, which is pretty good for this country.

A ledge of silver ore has lately been discovered in the State of Cauca, in the foothills, which assays \$50 per ton in silver and \$6 in gold.

RIPENED LEAVES.—Many persons think that when the leaves turn red and yellow in the fall it is because they have been killed by the frost. But a little observation will show that such is not the case, and that the autumns when the leaves are most beautiful, are those in which the frost is the latest. A severe frost kills the leaves at once, and they soon fall, brown and withered. To be brilliant they must ripen naturally, and our hot September and October midday suns have probably much to do with it, as in England, where the falls are apt to be damp and cloudy, the leaves are not so bright, and American artists, who strive to paint our maples and dogwoods as they see them, are unjustly accused of over-coloring.—*Ec.*

GREEN wood can be easily finished by scorching the piece after it is shaped out. A few lighted shavings will suffice.

Poultry Breeders.

BRONZE TURKEYS.

THE HEAVIEST IN THE WORLD!

MY SPECIALTY.

I was the first man on this Coast to import and breed mammoth Bronze Turkeys. I have as progeny of my imported birds, the largest single Tom, Hen and pair or trio of Turkeys, for their age, that the world ever saw. One pair, 19 months old, now weigh over 72 pounds; Toms 40 pounds and over, Hens 20 to 30 pounds. This is not what the birds weighed six months since or what they will weigh when fattened, but what they weigh now as they run with the flock. During the coming season I propose to sell eggs for hatching from this stock; the eggs will be packed in my improved shipping box, which carries safely. Orders now received for early Spring delivery. I can spare a few extra large Toms; also, a few pair of great size. Weight guaranteed or no sale. I offer fowls and eggs from my very fine and choice collection of Brahmas, Cochins, Leghorns, Houdans, Ducks, etc. My yards contain the best strains of the above varieties. For further information apply to

C. W. WILSON,

P. O. 1874.

San Francisco.



LOOK!

ALBERT E. BURBANK, Importer and Breeder of Fancy Fowls, Pigeons, Rabbits, etc. Also Eggs for hatching from the finest of imported stock, eggs and fowls at reduced prices. Send for Price List.

ALBERT E. BURBANK, 1vs-3m 43 & 44 Ca. Market St. S.F.

WHITE LEGHORNS.

I make these fowls a specialty, and have spared no pains or trouble in procuring stock from the finest strains in the United States, and now offer eggs for hatching at Eastern prices from the finest fowls on the Pacific coast. They are small eaters, non-setters and very hardy, and for eggs are without a rival, being almost constant layers, and are truly styled the "farmer's fowl." Eggs, \$3 per dozen, (13 or six dozen for \$35. Securely packed to carry any distance, and delivered to the express on receipt of price. Cash to accompany order and orders taken in rotation.

W. J. HUNT,

Sebastopol, Sonoma county, Cal.

California Farmers Mutual Fire Insurance Association.

Office, 6 Leidesdorff St., - San Francisco.

Directors:

A. WOLF, A. W. THOMPSON, I. C. STEELE, I. G. GARDNER, J. C. MERRYFIELD, J. D. BLANCHARD, G. P. KELLOGG, Treas.

Finance Committee:

I. G. GARDNER, J. C. MERRYFIELD, A. W. THOMPSON

Trustees:

J. M. HAMILTON, Lake Col. C. STEELE, San Mateo Co J. C. MERRYFIELD, Solano Co A. B. NALLEY, Sonoma Co G. W. COLBY, - - Butte Co O. S. ABBOTT, S'ta Barh'a Co H. B. JOLLEY, - Merced Co A. W. THOMPSON, Sonoma Co A. WOLF, San Joaquin Co E. W. STEELE, S.L. Obispo Co J. D. BLANCHARD, Pres't. W. H. BAXTER, Sec'y.

This association is organized for the purpose of affording the farmers of this State the means of safely insuring against loss by fire, at actual cost of insurance, without being connected with city risks. \$822-4f

THE CELEBRATED

H. H. H.

HORSE MEDICINE

IS STILL AHEAD OF ALL OTHERS.

The Wholesale Druggists of San Francisco, give evidence of its appreciation throughout the State, by and rapidly increasing orders. We pledge it a cure for SPAVINS, WIND GALLS,

SWEENEY, SCRATCHES,

LAME AND STIFF JOINTS,

CALLONS, LUMPS,

AND ALL BLEMISHES,

SPRAINS OR BRUISES.

It is a household blessing and no family should be without a bottle in the house. For sale everywhere.

WILLIAMS & MOORE, Prop'rs., 25vs-6m Stokton, Cal.

THE ALDEN

Fruit Preserving Company

OF CALIFORNIA.

Is now prepared to sell rights and furnish the necessary machinery for using the "ALDEN PROCESS," acknowledged to be the best method known for preserving Fruits, Vegetables, Meats, etc.

For full particulars call at the company's

Office, 426 Montgomery St., S. F.

G. W. DEITZLER, President.

W. M. WHEAT, Vice-President.

FRANK PYLE, Sec'y and Supt.

BANK OF CALIFORNIA, Treasurer.



5,500 ACRES

Of the best portion of the old NOMELOCKEE RESERVATION, in Tehama County, for sale very low; only five dollars per acre; one-third down, one-third in one year and one-third in two years, with interest at one per cent per month. Will be sold all together or in two parcels. This is one of the finest tracts of grazing land in Northern California; is abundantly watered by numerous perpetual springs and has two miles of the Elder Creek, a clear mountain stream. Its grass never fails from drouth, and is of the best quality for sheep and has no clover hurr. 800 acres of level plow land; timber for posts, fuel, etc. Enquire of ALLEN WILCOX, Los Angeles, or F. B. WASHINGTON on the tract, twenty miles west of Tehama.

Thursday Noon our last forms go to press. Communications should be received a week in advance and advertisements as early in the week as possible.

Miscellaneous Notices.

H. K. CUMMINGS, 1858.

H. H. RALSTON, 1875.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission House,

ESTABLISHED 1868.

No. 424 Battery street, southeast corner of Washington, San Francisco.

Our business being exclusively Commission, we have no interests that will conflict with those of the producer. 4v23-1v

Hooper's South End Grain Warehouse.

Japan and Townsend Streets.

SAN FRANCISCO, July, 1874.

I beg to inform you I have leased the above first-class Fire-Proof Brick Warehouse, now being erected by Geo. F. Hooper, Esq., and will be ready to receive storage on the 1st of August. This warehouse offers superior inducements to parties desiring to store grain and flour, as it is situated on the Water Front, and on the line of the C. P. R. R. and S. P. R. R. It is well ventilated, rat proof, and combines all the modern advantages and improvements. Yours respectfully, JOHN JENNINGS.

Advances and insurance effected at the lowest rates

Storage taken at lowest current rates. 4v3-ft

PACIFIC OIL AND LEAD WORKS,

SAN FRANCISCO,

Manufacturers of

Linsed and Castor Oils, OIL Cakes and MEAL.

Highest price paid for Flax Seed and Castor Beans delivered at our works. Office, 3 and 5 Frontstreet. Works, King street, bet. Second and Third. fel5-eow

CO-OPERATIVE MARBLE WORKS.

JOHN DANIEL & CO.,

Manufacturers of and Dealers in

Monuments, Headstones, Tombs, MANTEL PIECES, ETC.,

\$21 Pine street, between Montgomery and Kearny, SAN FRANCISCO. 2lv2-1v

SANTA BARBARA COLLEGE,

SANTA BARBARA, CAL.

A Boarding School for Boys and Girls, offering all the advantages of a thorough modern education. French, German, Spanish, Latin, Greek, Drawing, the Natural Sciences, Gymnastics and Dancing taught without extra charge. Vocal and Instrumental Music receive particular attention. Pupils furnish only a pair of heavy blankets. Next term opens January 6th, 1875.

Write for Catalogue to ELWOOD COOPER,

President Board of Directors. 2lv6-1v

BELLA UNION HOTEL,

JOHN F. MILLER, Prop.,

SAN BERNARDINO, CAL.

This fine hotel is situated in one of the best parts of the city, and the proprietor will at all times use his best endeavors to promote the comfort of his guests.

ALEX. BUSWELL,

BOOK BINDER, PAPER RULER

AND BLANK BOOK MANUFACTURER.

418 & 420 Clay Street, S.F.

Blank Books Ruled, Printed and Bound to Order. jan1-ly

YOSEMITE HOUSE,

STOCKTON, CAL.

JAMES COLE, Proprietor.

This House contains all modern improvements; Saloons, Bath Rooms and Telegraph.

The only first-class Hotel in Stockton.

HOP ROOTS FOR SALE.

I have a lot of choice HOP ROOTS, and also healthy BLACKBERRY SETS for sale at LOWEST RATES. Orders may be addressed through DEWEY & Co., of the Rural Press, San Francisco; ROBT. WILLIAMSON, Capital Nurseries, Sacramento; or to me,

CALVERT T. BIRD,

24vs-3m San Jose, Cal.

COMPTON & BINFORD,

REAL ESTATE BROKERS

Employment and Intelligence Office, Horse and buggy free to see property. Offices at Compton, and at corner of Court and Spring streets, Los Angeles, Cal. 25vs-1y

Davis & Sutton, Commission Merchants,

For California Fruits; also for the sale of Butter, Eggs, Cheese, Hops, Green and Dried Fruits, etc., 75 Warren street, New York. Refer to Anthony Halsey, Cashier, Tradesmen's National Bank, N. Y.; Ellwanger & Barry, Rochester, N. Y.; C. W. Reed, Sacramento, Cal.; A. Lusk & Co., Pacific Fruit Market, San Francisco, Cal. 3v4-1v

Orders Wanted at the National Em-

ployment office, 608 Market street, room 9; office crowded daily with good men and women, seeking employment; particular attention paid to country orders. 25vs-3m A. BRANDT & CO., Prop'rs

Brittan, Holbrook & Co., Importers of

Stoves and Metals, Tinners' Goods, Tools and Machines, 111 and 113 California, 17 and 19 Davis streets, San Francisco, and 173 J street, Sacramento

For the very best Photographs go to BRADLEY & RULOFFSON'S GALLERY, with an "Elevator" 429 Montgomery street, San Francisco. 2v7-6m

CENTINELA COLONY

LOS ANGELES CO., CAL.

SIX MILES WEST OF LOS ANGELES, CAL.

The unparalleled success of the

LOMPOC COLONY,

SANTA BARBARA COUNTY.

Has induced the "Centinela Land Company of Los Angeles" to subdivide and place in market for sale and settlement, under the direction and management of the "California Immigrant Union," of San Francisco, the "Centinela and Sausal Redondo" Ranches, containing Twenty-five Thousand Acres of Beautiful Valley Land, located seven miles west of the city of Los Angeles, and extending to and fronting on the Pacific Ocean. There is now on the tract an orchard of about three hundred acres, containing Orange, Lemon, Lime, Fig, Walnut, Almond and Olive trees, and a nursery of young Orange and Lime Trees. Some of the Orange and Lime trees are in bearing. The tract will be subdivided in twenty, forty, eighty, one hundred and sixty-acre farms, and sold upon easy terms and long credits.

Auction Sale of Town Lots

—AND—

5, 10, 20 and 40 ACRE FARMS,

WILL COMMENCE ON

Monday, Jan. 18, 1875, at 12 o'clock, M.

And continue Five Days. The sale will take place on the Rancho. Parties desiring to purchase should be on the ground a few days prior to the sale, in order to examine the property. Title—United States patent.

SITUATION.

"Centinela," with the addition of the "Sausal Redondo," contains 25,000 acres. The boundary of the Rancho commences three and a half miles from the city limits of Los Angeles, and extends to the Pacific Ocean.

TOPOGRAPHY.

"Centinela" is made up of one broad, level, fertile valley, of over twenty thousand acres, and beautiful fertile rolling hills near the ocean.

SOIL.

The soil is an exceedingly fertile loam, and is, without exception, the richest and most productive in Southern California. Its vicinity to the ocean insures a crop without irrigation. Excellent wheat has been raised for the last two years upon the hills adjoining the ocean. This wheat field contains 1,000 acres, and covers the lightest soil upon the Rancho. There is no alkali or barren land.

SEMI-TROPICAL FRUITS.

There are a few bearing orange and lime trees upon the Centinela, and the fruit they produce is of the largest and finest quality. There is an orchard containing 6,000 orange trees three years old, and 1,700 almond, lime and lemon trees. The almond, lime and lemon trees will bear fruit in 1875. The orange trees will bear in five years. There are 7,000 three-year-old orange trees in the nursery near the orchard. Fig, pepper and gum trees grow without irrigation. The entire orchard can be taken care of by three men with six horses. The orchard will be kept undivided by the company, to save the expense of each shareholder having a few trees to take care of. Each share will entitle the owner to about 15 acres in the orchard and about the same number in the nursery. The almond, lime and lemon trees will yield an immediate return. In five years each orange tree will produce 320 per annum, or \$300 per share for those now planted. There are flowers in the garden in bloom every day in the year.

SHEEP.

A flock of about 14,000 sheep will be kept undivided, to save expense to the shareholders. This will give about 30 sheep to each share. The sheep will produce an increase and wool over \$2 each, yearly, over expenses. They will be grazed upon outlying and unsold lands of the company. The "No fence" Law is in force in Los Angeles County.

CLIMATE.

The climate of the "Centinela" is without exception the finest and most equable in the world. It varies but little throughout the year. The mean temperature is about 60 degrees. The mercury falls but little below 60 in winter and rises but little above 60 in summer. You sleep under one pair of blankets and with your bed-room window open every night in the year.

AGRICULTURE.

The soil of the "Centinela" is admirably adapted for all kinds of grain, vegetables and fruit.

WATER.

The Centinela creek rises upon the Rancho and runs through the northern portion of the tract. It affords an abundance of clear spring water. The source of the Centinela creek consists of several natural artesian springs, showing that artesian water can be obtained by boring.

THE TOWN.

A square mile is laid off at an eligible point on the tract, with lots 31x135; avenue 100 feet, and streets 80 feet wide. A stream of water can be brought in so as to supply every lot with crystal, cool, sweet water. One of the forty-acre tracts is set apart for a College and Farm School, and there will be a Ten-acre Park on each of the four sides of the town, and Four Blocks in the center of the town for Public Buildings, Schools, etc. A large lot will also be set apart for each religious denomination, and a block given for the erection of a large hall by the different Fraternal, Grange and Temperance Societies.

FARE.

Parties desiring to visit the Rancho can take the 8:30 A. M. train of the Southern Pacific Railroad to Soledad, thence by Coast Line Stage to Los Angeles; by 4 P. M. train to Bakersfield, thence by stage to Los Angeles; or by Pacific Mail Co.'s and Goodall, Nelson & Perkins' steamships direct to Los Angeles, where conveyances can be had to go to the Rancho free of charge.

RAILROADS AND WHARF.

The Company intend building a wharf to enable Steamships from San Francisco and other places to land passengers on the tract. A narrow-gauge railroad will be built from Los Angeles to the wharf, a distance of about 12 miles. The Main Street and Agricultural Park Railway will soon be built to the park, about miles from the tract. This railway will be extended to the tract as soon as the settlement will justify it.

Apply to

W. H. MARTIN

General Agent California Immigrant Union, 534 California street, between Montgomery and Kearny streets, San Francisco, to TEMPLE & WORKMAN, Bankers, or Gen. SHIELDS, Los Angeles, or O. L. ABBOTT, Corresponding Secretary State Grange Immigrant Aid Association, Santa Barbara.

P. S.—A second sale will take place on the Rancho, commencing on Monday, the 8th of March, 1875.

Further particulars will be furnished by the officers and directors of the Centinela Land Company, of Los Angeles, who are: F. P. Temple, President; F. P. Howard, Vice-President; J. S. Slauson, Los Angeles County Bank, Treasurer; J. M. Griffith, of Griffith, Lynch & Co.; Gen. J. H. Shields; O. W. Childs; D. Freeman, on the Rancho; W. H. J. Brooks, Secretary.

AGRICULTURAL NOTES.

ALAMEDA.

PROSPEROUS.—Livermore *Enterprise*, Jan. 9: A correspondent writes from Sunol: The hand of prosperity seems to be open in this valley and, judging from the number of houses erected during the last year and the number of families settling hereabouts, she has blessed us bountifully. The population of the State has increased upwards of 50,000, and we are proud to say that Sunol has done her share towards swelling these figures. Our farmers are nearly through seeding. Having no rain does not seem to discourage them in the least. They say they will do their part and leave the rain to Him who rules all. But little grain is sold, as many think we shall not lose by holding on.

Another correspondent writing from Pleasanton says: Our farmers "in the lowlands, low," are all in good spirits. A dry season will suit them better than a wet one. In other localities, however, the severe frosts are beginning to affect vegetation to some extent. The fields do not look as green as they did two weeks ago—though I am informed that the ground is moist enough for plowing.

WATERCRESS.—One of the most prolific vines of watercress in the valley can be seen at the residence of Mr. C. Garthwait near Pleasanton. Mrs. Garthwait threw several slips into the trough, used for watering the animals, sometime since, and now she has all they can use on their table. It has spread to such an extent that it has to be cut away from about the trough. The water is supplied from a spring near by and is beautifully clear, and the cress grows spontaneously. No healthier salad can be used than the watercress.

BUTTE.

RAIN NEEDED.—Record, Jan. 9: Farmers tell us that these continual warm days and frosty nights have a tendency to rot the grain already sown, and that if we don't have rain shortly a great deal of ground already seeded, will have to be resown.

CALAVERAS.

RAIN NEEDED.—Calaveras *Citizen*, Jan. 9: Rains are needed in other parts of the State more than here. We, of the foothill section, are not as yet in much need of rain, though a nice little shower would be quite acceptable. In the lower counties grain which reached the height of a foot or over has become quite black from the effect of the cold weather and frosts. If a good rain should now come the check, from the frosts would prove beneficial, as the growth would perhaps otherwise be too precocious.

COLUSA.

WHEAT.—Colusa *Sun*, Jan. 2: The dry weather has given the wheat market a decided advance. Jackson Hart sold 1500 tons this week at \$1.52½ here. Dr. Glenn sold 13,000 tons on Christmas day, but at a much lower price.

THE SEASON.—Although this season so far is without a parallel since the settlement of California by the Americans, we are not at all alarmed as to the result. The ground is now thoroughly wet, and a few showers along between this and the first of May will make good crops. Much wheat, however, will rot in the ground if we do not have rain in a short time.

CONTRA COSTA COUNTY.

FROST.—Ledge, Jan. 9: The frost and fog still continues. The days are sunny and pleasant, but as evening comes on the atmosphere grows cold and at daylight there is a white hoar frost, accompanied with dense fog, which vanishes about 9 o'clock A. M. The grain is not yet suffering, but rain will be needed soon, else the prospects will be gloomy indeed. Six inches of rain distributed at opportune intervals would insure a crop. In the upper San Joaquin stock is dying and the young grain assuming a yellowish tinge. It would be seemingly wrong to desire two or three successive droughts in this valley and it would occasion much suffering; but if by reason of it the people would arouse to a realizing sense of the benefits of a canal for irrigation, it would in the years to come be a blessing and not a curse.

ART OCH.—Our people will rejoice to know that henceforth our town may be supplied with good water. George Wiggins, of Pacheco, has recently been boring on the New York grant, in every instance obtaining good drinking water at a depth of 30 and 35 feet. The philosophy is this: The surface water is alkaline, but at a depth of 35 feet there is a stratum of gravel. In boring a well he goes down to the surface water, puts in an iron pipe, and then bores with a smaller auger inside of this pipe till he reaches the gravel formation, which abounds in fresh cool water.

FRESNO.

The cold frosty weather, says the *Expositor*, Jan. 6th, still continues, and is sapping the life out of everything green. The flush prospects of a month ago are fading away, and gloom is following. Such weather as the past month has been unprecedented, and more fully demonstrates that no one can tell anything about the character of the seasons in California. Rain we must have soon, or else all land that is not irrigated will fail to produce anything like a decent crop. It is true that there is yet time to save the grain and grass, but that time is rapidly drawing to a close. Sheep range is getting scarce. The grass,

which had a fair start, has not grown any for three weeks, and the myriads of sheep which swarm the country in every direction have eaten out nearly all the available range, and unless the weather moderates and rain comes very soon, a large number of sheep must of necessity be driven from the country in search of other range.

KERN.

THE IRRIGATING CANAL.—The work on the Kern Island irrigating canal is progressing rapidly. Mr. Sonther promises its completion during this month. The big plow has been run as near Kern lake as the ground will permit, and the waters of the river and the lake may now join at the head for the first time since 1867. It is proposed to divide some of the lands into tracts of 10, 20 and 40 acres each, for orchard and vineyard purposes, and offer them for sale, on three years time and on such terms as to make them available to all.

Small farms, provided with a constant supply of water, are needed to develop the rich resources of our county.

LAKE.

PLOWING.—Lake Co. *Bee*, Jan. 7th: Mr. T. Deming, who has a fine farm of 240 acres in Scott's Valley, is still plowing his land, not having yet sowed any grain. He thinks it best to wait until the present frosty spell shall have passed away, and is succeeded by more moderate weather.

We are informed that the tobacco crop planted near Guenoc last year by A. A. Ritchie has proved successful. The crop has been cut and saved, and will be cured the coming Spring.

MONTEREY.

WHEAT FOR THE MARKET.—Centerville *Arkus*, Jan. 9th: The long-continued term of cold and rainless weather is producing, among all classes, considerable anxiety respecting the character of the present season. So far, however, as the grain interest is concerned, we are not willing to anticipate anything approaching a failure. The "latter" rains may be tardy, but they are almost certain to come, and can hardly fail to assure at least a half crop. Stock at the present writing, will be more likely to suffer, grass being short and scant.

NAPA.

THE OUTLOOK.—St. Helena *Star*, January 7: The outlook for another bountiful harvest in his valley was never more promising than now.

ORANGES.—A few days since a small limb was broken from an orange tree growing on the farm of Mrs. Yount, seven miles from St. Helena, which contained fourteen full grown oranges. The *Star* thinks that is a hint for the more general planting of orange trees in Napa.

NEVADA COUNTY.

ORANGES IN THE FOOTHILLS.—Foothill *Tidings*, Jan. 9: Silas Beezley, of Rough and Ready, has an orange tree that he raised from the seed, which has matured fruit for several years past and this year had over thirty perfect oranges, some of them very large. There are thousands of sheltered situations like Mr. Beezley's all along the foothills, where the orange will grow and fruit finely.

PLACER.

OLIVES IN THE FOOTHILLS.—Rev. N. R. Peck, of Ophir, Placer county, has an olive tree, six years old, from the cutting, that is now full of finely developed olives. It has been bearing two years. The olive is easily propagated from cuttings, and grows well in that vicinity. It should be more generally planted.

SANTA CRUZ.

ORANGES ON THE COAST.—Santa Cruz *Enterprise*, Jan. 8: Wm. Kerr, of San Francisco, proprietor of the Scott ranch near Santa Cruz, has sent a fine lot of orange trees to be planted in the grounds about the house. There is no doubt but that they will grow rapidly, but the fog will prevent their producing anything like nicely flavored fruit.

THE WEATHER AND CROPS.—Watsonville *Pajaronian*, Dec. 31: There seems to be some apprehensions of a dry season on the coast, but there is still time for ample rain to fall for farming purposes. In this valley a dry season does not result seriously. This immunity from the effects of a drought is due to the fogs which prevail here, and green grass can be seen in the Pajaro valley in mid-summer. Should the crops prove a partial failure, grain will next year be high, and as thousands of farmers have a good deal of last year's crop on hand, they will make money whether they harvest good crops or not.

SAN MATEO.

NEW POTATOES.—San Mateo *Times*, Jan. 9: The first of the new potato crop was shipped to San Francisco on Thursday by the railroad. They were from the farm of Johnson, near Spanishtown. This shipment is unprecedentedly early, the new potatoes rarely coming in before the middle or latter part of February.

SANTA BARBARA.

WHEAT AND FRUIT—THEIR RELATIVE CHANCES.—Santa Barbara *Index*, Jan. 7: We are yet without rain, but while sheep raisers are making lamentations, and wheat growers scanning the bright heavens and the baking earth with rueful looks, there are some among us whose fortunes depend on the products of the soil, who are secure from loss, let there be rain or no rain. A fruit grower, who has been a resident of Santa Barbara about twenty years, informs us that, should there be no rain from now until the next rainy season, his fruit harvest would not be injured in the least. If affected at all, he thinks it would be improved. Much

rain, he holds, rather detracts from the sweetness and rich flavor of fruit. This fruit grower, keeps his soil in a thorough state of cultivation, so that whenever moisture is afloat, his soil is prepared to gather it in, and store it in its bosom to meet the demands of the trees. In all this there is a lesson. Crops are uncertain. Fruit raising, then, is the proper agricultural industry for the farmer of the Santa Barbara valley.

SAN BENITO.

THE PROSPECT.—San Benito *Advance*, Jan. 9: The young wheat is sprouting up over thousands of acres of seeded land. The moisture in the ground resulting from the heavy rains had a few weeks since is not exhausted. While the weather remains cool, the atmosphere moist, and there is no hot sun or drying winds to blast the prospects, there is really no cause for alarm in this valley.

The grain yield of Quien Sabe valley last year was 25,000 bags. Twice the surface of land has been seeded this year and a crop of 50,000 bags is anticipated.

SONOMA.

CROP PROSPECTS.—Petaluma *Argus*, Jan. 8: W. M. Connolly left at this office on the last day of December a bunch of wild oats of this season's growth, from the ranch of John Lynch, in Vallejo township, that are two feet in length. This is one of the numerous proofs of what we have often said regarding the mildness of our climate, the fertility of our soil, and the value of our agricultural lands. H. A. Heineken, of Hicks valley, informs us that the prospects of dairymen in his neighborhood are unusually good. Grass is coming on finely, and stock is doing well. Mr. H. has a ranch of about 1,000 acres, and milks 100 cows. L. N. Harmon will have green peas in the market in a few days. They were sown on October 10th.

SAN JOAQUIN.

THE CROP PROSPECTS.—Stockton *Leader*, Jan. 9: The continued dry and cool weather gives rise to the very serious apprehension of disaster to the wheat crop of this year. Those apprehensions undoubtedly have some effect on the market, inducing many to hold on, who would otherwise let their stock go at present rates.

Says the *Independent*, Jan. 11: Farmers in the vicinity of Linden, and in other portions of the county, while not complaining to any great extent, are beginning to be apprehensive, on account of the continued dry weather. Unless we are favored with rain as soon as the 1st of February, there is danger of a partial, if not total failure.

STANISLAUS.

PROSPECTS ON THE "WEST SIDE."—A correspondent of the Stanislaus *News* writing from Grayson, December 29th, says: The dry weather seems prevalent throughout the valley, but notwithstanding, what still assumes a bright, healthy, growing appearance, though a great many farmers are getting frightened, and fears are apprehended of another drought. Many who have volunteered wheat are wishing for stocks of various kinds to eat it down; for they say it draws all the moisture out of the ground, whereas if it is eaten off the ground would retain all its moisture, and the wheat would attain a deeper root, and would be better prepared to withstand a drought, should any happen to come.

SANTA CLARA.

THE WEATHER AND CROPS.—Mercury, Jan. 10: From all portions of the State come reports of a threatened drought. In some counties it is already beyond the probabilities that more than half a crop can be secured for next season. In this county we are not quite so badly off, but we must have rain soon or much damage will ensue to the farmers. We want rain immediately and a good deal of it.

Several families from Oregon have recently invested in farming lands in this county.

A PUBLIC GARDEN FOR SAN JOSE.—Mr. O'Donnell, whose place is situated in the southeast part of the city, some years ago resolved upon getting up a public garden, something after the style of Woodward's Garden, only, of course, on a smaller scale; and to carry out this resolve he has been at work in building his fountains, basins and ponds, or tiny lakes for his fish of different kinds, his seal pond, and swan and pelican basin or pond, etc. All are so arranged that at every turn you take in the grounds some new and interesting view is opened to the visitor. * * * It is intended to have these splendid grounds so far completed that they can be opened the fore part of the coming summer.

At Gilroy, says the *Advocate*, January 9th, the farmers are heartily wishing for rain, although they are not very much alarmed as yet. The mornings were frosty up to Friday, when we had the heaviest fog we have seen in a long time, in fact it was almost a rain. A few more such mists would greatly benefit vegetation.

TRINITY.

NUT TREES IN TRINITY.—Trinity *Journal*, Jan. 9: Dettlef Hansen has received a number of chestnut and other trees from San Francisco, and will set them out on his premises in Fagg-town. We learn that others hereabouts will follow his example by cutting down cottonwood and other non-productive shade trees and replacing them with nut bearing varieties—something that will be useful as well as ornamental.

TULARE.

CROPS, ETC.—The editor of the Tulare *Times* has been visiting some of the ranches just out of town. On Mr. Owen's ranch he

noticed land that is said to have yielded a good crop for 23 successive years. Alfalfa which was sown last year looked well. Good corn crops, small grain, melons and almost everything appeared to have grown abundantly there. The portion spoken of is reclaimed swamp land, and needs no irrigation. His attention was next turned in another direction to the dryer, or what was once thought to be barren alkali land, but now presents quite a different appearance by the agency of water. The remains of corn-stalks, tomato vines, and other vegetables now growing, clearly indicate what can be done when proper attention is given to almost any of the lands in the county. The sugar beet appears to be particularly adapted to this kind of land.

YUBA.

ORANGES.—Appeal, Jan. 6: Jack Smith, of this city, grew 400 oranges on two trees, and of excellent flavor and large size, and has made no great fuss about it. There are a thousand or more oranges hanging upon trees in this city, which are the pride of their owners.

NO RAIN NEEDED.—While the farmers in many of the southern counties are exercised with fears about a failing crop for want of rain, the farmers in this section were never in better spirits. Though less than six inches of water has fallen in this vicinity, the crops are most promising. This section of the State never fails to produce her grain crops.

To our Bee Correspondents and Others.

Cards from parties wishing to purchase or to sell bees are coming in upon us at a rate somewhat beyond our means of disposal. Those who mean business in this—as in every other department of stock or farm equipments—must have noticed how promptly any calls put forth through the columns of the *RURAL PRESS* are responded to, and knowing as they do the reliable character of the advertisements which it issues, they should publish their wants through our advertising columns. Our paper is thoroughly read by shrewd, practical people; and such advertisements would "tell" at once. In this connection we would give a

Hint to Seedsmen.

Mr. Samuel E. Reed, of Linn's Valley, says in a letter published in the *PRESS* of Dec. 26: "I have received more than my money back every year that I have paid for the *RURAL PRESS* in the farm and household departments; besides the advantage of knowing where to get the cheapest and best seeds the market affords at reasonable rates." The readers of the *PRESS* will have noticed that we have given particular attention to this vexed question. The labors that we have bestowed upon this important matter are redounding to the advantage of all parties. Reliable seedsmen—and we endeavor to have nothing to do with those who are not reliable—will appreciate the efforts made by us to secure for the business a sound, legitimate basis, and to dispel the too general distrust which has prevailed among seed purchasers; while the practical information given through the *PRESS* in regard to testing seeds, with other facts and suggestions in connection with this subject, have done much to divest the matter of seed buying of its uncertainty. Add to this the confidence which the farming community feel in what the *RURAL PRESS* advertises, and the reliable seedsmen can scarcely fail to recognize the advantages of advertising with us. The same timely hints may be made available by stock-breeders, nurserymen, etc., as well as by seedsmen and the buyers and sellers of bees; for our paper goes among a class who desire to purchase, and possess the means for doing so, wanting nothing but the reliable information as to the best parties to purchase from.

NEW MUSIC.—Among the new pieces of music recently received is Davy Crockett's motto, "Be Sure You're Right then Go Ahead." It is published by Sherman & Hyde, 139 Kearney street. The words are by Sam. Booth, and the music by Chas. Schultz. We have also received the Bennington Quickstep, composed by Dr. C. B. Dickson, who is well known in Sonoma county, especially about Tomales, Bodega, Bolinas and Petaluma. The latter piece was arranged by Prof. John Knell.

THE KINO IRON advertised in the *PRESS* is alluded to as follows by the *Pittsburg Christian Advocate*: We can conscientiously recommend this iron to agents and canvassers, and believe that those who engage in its sale will find it a pleasant and remunerative business. Being an article of household use it will recommend itself especially to lady canvassers.

OPENING OF THE NORTH PACIFIC COAST RAILROAD.—This interesting and important occurrence took place on the 7th instant, under the most favorable auspices. We had prepared a full account of the affair, but an unusual press of matter compels us to defer its publication until our next issue.

FARMERS' FIRE INSURANCE ASSOCIATION.—The readers of the *RURAL PRESS* will be pleased to learn that the Farmers' Mutual Fire Insurance Association is now in prosperous condition. The Secretary is preparing an annual statement, the substance of which we hope to be able to place before our readers next week.

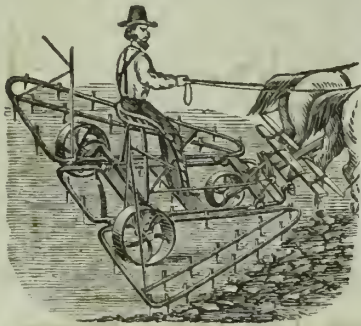
Agricultural Articles.

THE CALIFORNIA HARROW,

—MANUFACTURED BY THE—

Kimball Car and Carriage
Manufacturing Company,

Cor. Bryant and Fourth sts., San Francisco.



IN THE FIELD.

The California Harrow, large numbers of which we are now making, both of wood and tubular iron, has seven distinct and well defined improvements possessed by no other Harrow, each of which saves both time and labor:

First—This Harrow has an easy seat and three wheels, all attached to the central section, on which the driver rides and manages the Harrow and team with ease and comfort.

Second—By means of but three levers the driver in his seat on the Harrow can raise the Harrow and himself on the wheels, and trot to and from the field, and without leaving his seat can let the sections down and proceed with his work.

Third—By the use of but one lever conveniently situated at the right side, the driver in his seat, and without stopping his team, can regulate the depth of the Harrow teeth in the ground, and can set them deep or shallow, as the conditions of the soil require. This meets a demand for harrowing Alfalfa or small grain, in the spring.

Fourth—This Harrow is made in three sections, connected by loose hinges. The driver, as he moves along on the field, can raise any one of the sections, and pass a tree or stump, or other obstacles, without interfering with the work of the other two sections.

Fifth—By the use of a brace made of a board but 3 feet long and 4x4 inches, let on the tops of the levers of the wings, this can be made a stiff Harrow, and the driver by lowering the lever at his right can throw his weight and that of the wheels and extra fixtures on and off at his pleasure.

Complete work can be done up to and all around trees, without changing the course of the team.

We build these Harrows of wood and tubular iron, making beautiful and very powerful Harrows, unaffected by exposure to the weather.

We have any number of letters in praise of these Harrows from farmers who have put them to practical use.



ON THE ROAD.

The KIMBALL CO. are the owners and sole manufacturers of the celebrated IMPROVED EAGLE HAY PRESS, which has become so popular the past few years. For further information send for circulars.

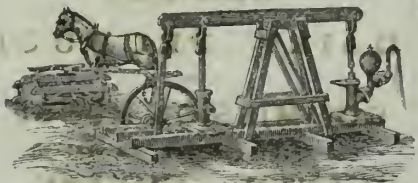
VINE AND FRUIT GROWERS,

TO RAISE LARGE CROPS

YOU MUST IRRIGATE.

To irrigate successfully, you must have the power that does not give out when the wind fails.

Laufkotter Bros. & Churchman's Horse-Power,



(PATENTED FEBRUARY 13TH, 1872.)

Never fails to supply more water than four or five Windmills, even supposing you had all the wind you want. It is also suitable for running light machinery, such as Harley Crackers, Corn Shellers, Fanning Mills, Grain Separators, or for Sawing Wood. They are never failing, cannot get out of order, easily worked, substantial, and always give satisfaction wherever they have been used. One horse can easily work two-inch pumps, with a continuous flow of water. Force Pumps, from 3,000 to 10,000 gallons per hour. WINDMILLS of all kinds manufactured to order. Wells Bored, Windmills and Horse-Powers set in any part of the State, and repairing of all kinds done. Manufactured and for sale by

LAUFKOTTER BROS.,

Cor. J and 10th Sts., Sacramento.

Farmers and Threshers

WISHING TO HAVE

STRAW BURNING ENGINES

For next season must engage them soon, as most of those now building are already sold. Threshing Engines for Repairs should be sent in now. A number of Second-hand Engines—taken in exchange for "Straw Burners"—for sale cheap. For particulars and prices, address:

H. W. RICE,

2338-3m Haywood, Alameda County.

Patent, First Premium Windmills & Horse Powers,

W. I. TUSTIN, Patentee.

Pioneer and Largest Manufacturer of Machinery (in this line) on the Pacific Coast.

FACTORY, Corner Market and Beale Streets,
SAN FRANCISCO.

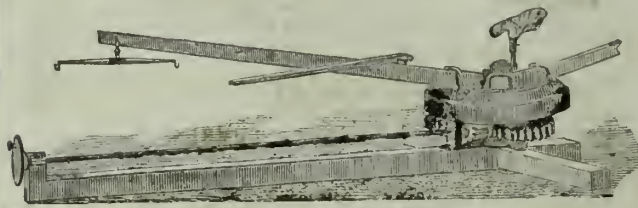
Send for Circular and Price List.



ECONOMY.



ECONOMY—For One or Two Horses.



EAGLE—For One or Two Horses.

cast, and are in general use along their line, giving perfect satisfaction, which can be proved by reference.

2vi-1am



EUREKA.

We have made the manufacture of Pumping Machinery a specialty for the past twenty-four years in California. Received all the First Premiums awarded by the Mechanics' Institute for the past seven years, in our line.

Our Windmills are preferred by the great Railroad Companies of this

THE BIRMINGHAM SHOVEL.

These Shovels have No Rivets nor Straps.

The blade is made of one piece of BEST SOLID CAST STEEL, the blade and shank being one piece.

THEY WILL WEAR TWICE AS LONG

As the ordinary shovel. They are the STRONGEST, BEST and CHEAPEST SHOVEL EVER MADE. Examine the engravings carefully and you can see how they are made.

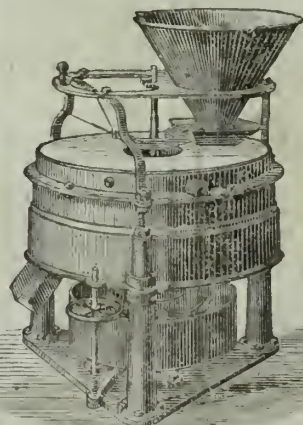
THEY NEED ONLY TO BE TRIED

To prove their value. Prices same as ordinary shovels. Ask for the BIRMINGHAM SHOVEL. Take no other.

TREADWELL & CO., Sole Agents for Pacific States.

2v8-cow-hp

San Francisco, Cal.

J. WAGNER,
MANUFACTURER OF
FRENCH BURR MILL STONES AND
PORTABLE MILLS.

General Mill Furnishing. Portable Mills specially adapted for Farmers' use. 113 and 115 Mission street, San Francisco. 13v7-3m-2am

O. CREGO.

S. O. BOWLEY.

CREGO & BOWLEY,

Importers and Manufacturers

—OF—

CARRIAGES and WAGONS,

No. 9 Merchant's Exchange,

CALIFORNIA STREET.....SAN FRANCISCO

Keep constantly on hand top and open Buggies, top and open Rockaways, Jump-seat Buggies, Track and Road Buggies, Skeleton Wagons, Basket Phaetons of the very latest styles and finest workmanship.

We would call particular attention to our fine stock of light Road and Trotting Wagons, made to order by the following celebrated makers:

Charles S. Coffey, Camden, New Jersey; Helfield & Jackson, Rahway, New Jersey; Gregg & Bow, Wilmington, Delaware; And the first-class makers, which we are prepared to sell on the most reasonable terms.

Also, a large assortment of single and double Harness, of the most celebrated makers:

C. Graham, New York; J. R. Hill, Concord; Pitkin & Thomas, Philadelphia.

Also, a full assortment of Dress and Light Blankets, Fur and Lap Robes, Whips, Halters, Burchingles, etc., at wholesale and retail.

CREGO & BOWLEY,

No. 9 Merchants' Exchange, California street, San Francisco.

THE CALIFORNIA SCRAPER,

—MANUFACTURED BY THE—

Kimball Car & Carriage Man'g Co.

COR. FOURTH & BRYANT STS., S. F.



THE CALIFORNIA SCRAPER.

This Scraper has been long needed in many departments of labor. Heretofore all classes of Scrapers have imposed immense labor and hardships on the driver, but this one is so constructed as to give him a place to ride, and yet manage the team and Scraper with ease in all classes of work.

The driver can throw his weight in front, and force the Scraper into the soil, and when he has gathered his load and driven to the place of deposit, he can throw his weight on the rear part of the platform and leave the load all in one place, or deposit it gradually, as the case may require, leaving the ground smooth and level.

This improvement is well adapted to leveling all irregularities on the surface of the soil where parties are preparing to irrigate.

For making roads, removing dirt from ditches, cleaning up barn yards or sheep corrals, it has no equal.

The KIMBALL CO. are sole owners and manufacturers of the celebrated IMPROVED EAGLE HAY PRESS, also the California Harrow. For further information send for circular.

MATTESON & WILLIAMSON'S

AMERICAN CHIEF



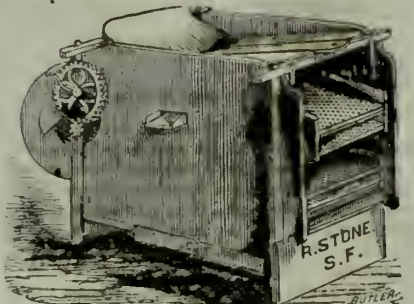
Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m

MATTESON & WILLIAMSON,

Stockton, Cal.

THE PATENT
Novelty Mill and Grain Separator

Is one of the greatest improvements of the age for cleaning and separating grain, while it combines all the essential qualities of a first-class Fanning Mill. It also far exceeds anything that has been invented for the separation of grain. It has been thoroughly tested on all the different kinds of mixed grain. It takes out Mustard, Grass Seeds, Barley and Oats, and makes two distinct qualities of Wheat if desired.

For further information, apply to

R. STONE,

10v8-cow-3m

422 Battery street, S. F.

THE TREADWELL SULKY



GANG PLOW.

Improved for 1874, with BLACK HAWK Plow Bottoms, is the best GANG PLOW in the world. It is Simple, Strong and Durable, and does its work effectually. Has high wheels, running both on unplowed land; iron axle, wrought iron beams, and is built nearly all of iron and steel. No farmer should neglect to see it before buying. Send for descriptive circular and price. We have also the "VICTOR GANG," with hard wood beams and heavy cast iron standards; price, \$75. Also the "GOLDEN STATE GANG," with all iron beams; price \$75. "PEEL'S GANG," improved; price \$50; old style, \$25. The largest and best stock of Plows, Harrows, Cultivators, Grain Drills, Seed Sowers, Farm Wagons, etc., in the country.

TREADWELL & CO.,

18v8-tf

San Francisco

Black Hawk,
Collins,
"Jones,"
Peoria,

Of all kinds and sizes. The largest stock ever offered in California; all new and just received, at low prices. Also, Cultivators, Harrows, Seed-Sowers, etc. Sold by

TREADWELL & CO., San Francisco.

Send for Price List.

18v8-tf

Notice—To Tule Land Owners.

I am manufacturing a Gang Plow specially adapted to ploughing Tule Lands. Address

Vallejo Foundry, J. L. Heald, Prop.,

18v29-3m

VALLEJO, CAL

POISON! POISON!
WAKELEE'S PATENTED
Granulated Squirrel Exterminator.

A NEW AND MOST DESTRUCTIVE POISON FOR THE WORST PEST OF CALIFORNIA.

For years the farmers of the Pacific Coast have been spending money in experimenting to find a safe, cheap and efficient way of ridding their grain fields of their worst enemy, THE SQUIRREL, which destroy Millions of Dollars' worth of grain every year; and unless a strong and combined effort is made to kill them off, they will become more numerous every year.

Wakelee's Granulated Squirrel Exterminator

Is just the thing the farmers of California have been looking for. It is SURE DEATH. One or two grains of it will kill a Squirrel so quick that if it is five feet from his hole it dies before it gets there. The Poison is put up dry and in granular form, and easily handled; in one pound tin at \$1 per pound. It goes a great way, as 10 to 15 grains of it are sufficient to place at each hole. Also successfully used for killing Gophers and Rats. It has been thoroughly tested in different parts of the country, and gave universal satisfaction. It is kept and sold by druggists and dealers generally through the country. The following are some of my testimonials, viz:

SANTA CLARA, April 20th, 1874.
H. P. WAKELEE, Esq.—Your Squirrel Exterminator was used according to your directions, on my Quail Farm, with excellent success, and in my estimation is just the thing the farmers want to kill their Squirrels.

J. R. ARGUELLO.

SAN LEANDRO, Cal., April 3d, 1874.
H. P. WAKELEE, Esq.—I have given your Squirrel Exterminator a fair trial and find it to be an economical and very destructive preparation, and I can safely recommend it to our farmers. Yours,

J. M. ESTUDILLO.

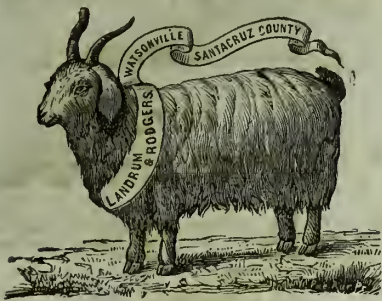
DOUGHERTY STATION, Alameda Co., Cal.
MR. H. P. WAKELEE, San Francisco: I have used your Squirrel Poison and found it to be just what you claim for it. It is sure death. Yours,

O. M. DOUGHERTY.

H. P. WAKELEE, Druggist,
Cor. Montgomery and Bush streets, S. F.

Geo. W. Chapin, Real Estate Agent, 434 Montgomery St., San Francisco, buys and sells Ranches in all parts of the State. City Real Estate exchanged for Country Property. MONEY LOANED. Post Office Box 1120

Live Stock Notices.

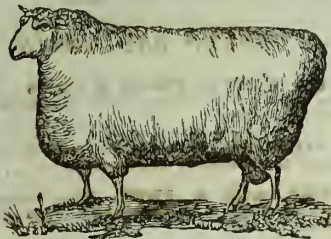


We respectfully invite the attention of wool growers to our fine stock of Cotswold Sheep and Angora Goats. We have 200 head of Pure Breed Angoras to select from; we have some of the finest Goats in America; we guarantee everything we sell to be as represented; our prices are as low as any in America for the same grade of stock. Call and see, or address,

LANDRUM & RODGERS,

13v7-cow-tf Watsonville, Cal.

B. W. OWENS, San Francisco. | E. MOORE, Stockton, Cal.



OWENS & MOORE,
COMMISSION MERCHANTS,
DEALERS IN

WOOL, HIDES, PELTS AND GRAIN.

Office—405 Front street, S. F. 14v7-3m

REEDVILLE HERD.

PROPRIETOR,

S. G. REED. Portland, Oregon.

I have for sale, Shorthorns of the most approved and fashionable families among them are a few one year old Bulls of great merit, the produce of Cows imported direct from England, and sired by the renowned Mantalini bull, GOVERNOR GENERAL, 10,156, A. H. B., Vol. X, p 175. Also in hand,

AYRSHIRE CATTLE,

COTSWOLD AND

LEICESTER SHEEP,

AND BERKSHIRE PIGS.

of the highest standard. For particulars apply to

S. G. REED, Portland, Oregon,

WM. WATSON, Hillsboro, Oregon.

1v9-9w-tf.

U. S. LIVE STOCK EXCHANGE,

S. E. Cor. 5th & Bryant Sts.
SAN FRANCISCO.



Fresh Milk Cows and Cattle; Saddle, Work and Carriage Horses; Thoroughbred Durhams and Devons; Pure Down and Fries; and Thoroughbred Cotswolds, Sired on commission or bought on farm for cash. Address, DAWSON & BARRETT, P. S.—Special rate to members of the Grange.

FOR SALE.

A pair of thoroughbred Ch. & W. Hogs, one year old, May 1874 Santa Clara Co., Cal.

JACKS FOR SALE.

Two fine Jacks, one four and one five years old, large and likely sired by a season, and of the best Kentucky Jinnets; the best of the kind in the State. Address B. C. EPPERSEN, Colusa County, Cal. 2v9-2m

FOR SALE.

HOMESTEAD FRUIT ORCHARD

About thirty-five acres from Stockton, containing three acres of good fruit of eight rooms, good well, etc.; such as Peach, Pear, Apricot, Apple, Plum, etc. A fine chance and a good market. Price \$1,800. Title perfect. Apply to

GEO. W. CHAPIN,

Montgomery street, S. F., or this Office.

RAPE VINES FOR SALE.

and cuttings of the best foreign varieties in fruit, at ten to twelve dollars for the former and lotwise dollars for the latter. Thirty thousand lbs. Muscat, Alexandria, etc. Orders solicited

H. W. CRABB,

Oakville, Napa Co., Cal.

Nurserymen.

Established 1853.

Stocks for Nurserymen.

Plum Seedlings, Mirobolan, the best French stock, does not sucker..... \$50 per 1000
Apple Seedlings..... 10 per 1000
Pear Seedlings..... 10 per 1000
Cherry Seedlings, Mazzard..... 12 per 1000
Cherry Seedlings, Mehalab..... 20 per 1000
Walnuts, English, 4 to 6 feet..... 15 per 100
Cork Elm, best Elm, 4 to 6 feet..... 15 per 100
Blue Gum or Eucalyptus, in variety..... 5 to 10 per 100
Magnolia Grandiflora.....
Magnolia Acuminata.....
Magnolia Tripetala.....
Golden Arborvitae.....
Crataegus Arbutia.....
Swedish Juniper.....
Irish Juniper.....
Heath-leaved Arborvitae.....
Laurustinus, 6 to 12 in..... 2 50 per doz.
Laurustinus, 6 to 12 in..... 2 50 per doz.
Making the growth of Oranges and Lemons a specialty, I have imported from all sources the best known varieties, and now offer five thousand Grafted Trees properly worked and twice transplanted at \$18 per dozen. Grafted oranges by the 100 or 1,000 at prices on application. The amateur in want of large PALMS, large AURICARIAS, large CAMELIAS and large TREE FERNS, a good stock on hand; also the usual large stock of fruit and ornamental trees.

LARGE STOCK

BERNARD S. FOX,

San Jose, Cal.

THOS. MEHERIN, Agent, 516 Battery Street, San Francisco. 24v8-3m.

The Aughinbaugh Blackberry



This new and excellent variety of Blackberries, are ready for market from the first to the fifteenth of May, and continue to produce berries until the middle of July, about the time other varieties begin to ripen.

Plants are now ready for transplanting, and for sale at my residence on Washington St., west of Euclid St., Alameda, and Francisco. Price, \$25 per hundred plants. G. AUGHINBAUGH. 23v8-4f

SHINN'S NURSERIES,

NILES' JUNCTION,

Alameda County, California.

The attention of persons intending to set out Trees is directed to the well grown and large variety offered for sale by the undersigned at the above Nurseries. Any person who has taken into consideration, and when the low prices we have fixed are taken into consideration, we believe we are offering the very best inducements for buyers to deal with us. For full particulars we refer to our circular for the approaching season, which will be sent, as requested, on application to either of the undersigned.

SHINN & CO.,

Proprietors.

Address James Shinn, Niles, Alameda County, Cal., or, Dr. J. W. Olark, 418 California street, San Francisco, Cal. 8v17-4mo.

J. ROCK'S NURSERIES,

San Jose, California.

We offer this season a Complete Stock of

FRUIT AND ORNAMENTAL TREES,

SMALL FRUITS AND PLANTS.

The attention of Dealers, Nurserymen and Planters is invited to our Large Stock of Fruit Trees. All Leading Market Varieties are grown in large quantities. To all those purchasing largely we will make a Liberal Discount. Catalogues FREE on application.

JOHN ROCK, San Jose, Cal.

ALMOND TREES.

35,000 Brier's Languedoc Almond Trees, one and two years old from the bud. This is the only Almond planted on a large scale, being hardy, late blooming, beautiful tree. It bears the second year from planting. The Almond is large and sweet with soft shell. Also, two year old Peach and English Walnut trees. Liberal terms to the trade and persons planting large orchards. Send orders to

W. W. BRIER,

Centerville, Alameda Co., Cal.

Peaches, Apricots and Prunes are specialties at the Vacaville Nursery, Solano County, California. Alexander's Early, Thurber and Peento in bud, 50 cents each; Beatrice, Louise, Rivers' Early, Lord Palmerston, Lady Palmerston, Prince of Wales, Princess of Wales, Picquet's Late, Lady Parham, Italian Dwarf, Golden Dwarf, Bloodsired and many other varieties of new Peaches in bud, at 25 cents each; Trees of Alexander's Early, \$1 each; Beatrice, Plowden, Freemason and a general assortment of the leading varieties, 25 cents each; Apricots, Plums, Apples, Pears, Almonds, Figs, Olives, Pomegranates and including most of the leading varieties of fruit for sale at low prices. D. E. Hough, Vacaville, Solano Co., Cal.

KELSEY'S NURSERIES,

OAKLAND, - - - - - CAL.

Established 1852.

More largely stocked this year than any previous year. Embracing all and every kind of

FRUIT, DECIDUOUS, ORNAMENTAL AND

FLOWERING TREES AND

PLANTS, ETC.

Send for Catalogue and Price List free on application.

W. F. KELSEY, Prop.

Fruit, Shade and Ornamental

EVERGREEN TREES

—AND—

Plants for Sale.

At the old stand, corner Oregon and Battery streets, directly opposite Post Office, San Francisco.

I NOW OFFER FOR SALE

The Largest and Best Collection of Fruit, Shade and Evergreen Trees and Plants ever offered in this market, and at Reduced Prices.

Persons laying out new grounds would do well to call and examine our stock before purchasing elsewhere.

ORDERS FROM THE COUNTRY

Promptly attended to and packed with great care. A large stock of Cypress, Pines and Blue Gums for sale very low. Send for Price Catalogue.

Agent for B. S. Fox's Nurseries, San Jose Address

THOMAS MEHERIN

P. O. Box, 722, 516 Battery St S. F.

SUPERIOR FRUIT TREES

TRUE TO NAME.

A fine collection of Evergreen and Deciduous Trees. Australian Gum Trees in variety, by the hundred or thousand. Monterey Cypress in quantities and sizes to suit all. Orange and Lemon Trees at reduced prices. A general variety of Nursery stock.

Also, Rhubarb and Asparagus roots.

T. CORLEY,

18v29-4 315 Washington Street, S. F.

THOS. A. GAREY'S

Semi-Tropical Nurseries.

LOS ANGELOS, CAL.

Forty varieties of the Citrus family of semi-tropical trees, including many rare and beautiful, as well as useful and profitable kinds.

Grafted and Budded Orange Trees a specialty. Trees packed to arrive in good order. Priced Catalogue sent free. Address me P. O. Box, 528, Los Angeles city, Cal.

23v8-6m

THOS. A. GAREY.

PEPPER'S NURSERIES.

(Established in 1858.) PETALUMA, CAL.

Green Houses and Tree Depot corner Washington and Liberty streets.

4 Green Houses. 3,000 feet of Glass. Fruit Trees a Specialty.

We offer for sale at lowest market rates a general assortment of Fruit and Shade trees, small Fruits, Vines etc. Evergreen trees and Shrubs in great variety. Green House, Conservatory and Bedding Plants, Roses, etc.

We are now ready, Nov. 1st, to fill orders for trees and plants. Catalogue and price list furnished on application.

Address, W. H. & G. B. PEPPER,

19v8-4f Petaluma, Sonoma Co., Cal.

80,000

AUSTRALIAN GUM TREES.

FOR SALE AT THE CELEBRATED

GUM TREE FOREST NURSERY,

Haywards, Alameda Co.

Address JAMES T. STRATTON,

No. 306 Pine street, over Pacific Bank, S. F.

22v8-4f

Established A. D. 1852.



BAY NURSERY,

TELEGRAPH AVENUE, EAST SIDE.

Nursery Depot, corner 13th St. & Broadway.

OAKLAND, CAL.

JAMES HUTCHISON, - - - - - Proprietor

Seedsman.

SEEDS. SEEDS.

Encourage home industry and make a saving of at least 30 per cent.

If you want Seed that you can depend upon as to variety and freshness, why not send your orders direct to the grower and make a saving of at least thirty per cent. on the prices of other seedsmen. Send for catalogue, free, post-paid, and compare with prices of other dealers. Just received,

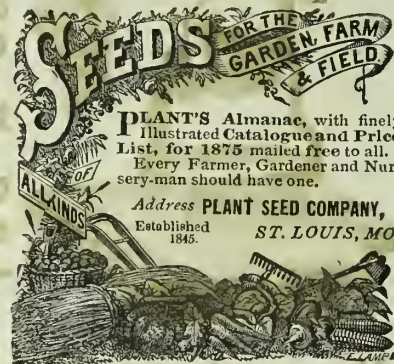
Grasses, Clover, Alfalfa and Field Seeds, Fruit and Evergreen Trees, Shrubs, Flowering Shrubs, and Green-house Plants. Cabbage, Onion and Cauliflower Plants.

Large assortment of Bulbs from Holland. Address all orders or letters of inquiry, to

SEVIN VINCENT,

607 Sansome street, San Francisco, Cal

22v8-3m



25v8-6f-cow



My annual catalogue of Vegetable and Flower Seed for 1875, will be ready by Jan. 1st for all who apply. Customers of last season need not write for it. In it will be found several valuable varieties of new vegetables introduced for the first time this season, having made new vegetables a specialty for many years. Growing over a hundred and fifty varieties on my several farms, I would particularly invite the patronage of market gardeners and all others who are especially desirous to have their seed pure and fresh, and of the very best strain. All seed sent out from my establishment are covered by three warrants as given in my catalogue.

JAMES J. H. GREGORY, Marblehead, Mass



I will send 12 Flowering Plants for One Dollar (your choice from 100 sorts), by MAIL OR EXPRESS. MY ILLUSTRATED CATALOGUE, SEED, describes the nature of Plants & Seeds, to customers free; others, 10c. Address WM. E. BOWDITCH, 645 Warren St., Boston, Mass. 1v9-1f

A GOOD GARDEN

Can not be had without GOOD SEED, and I have endeavored in every way to make mine THE BEST. My GARDEN MANUAL, besides containing the most COMPLETE TREATISE on Hot-bedding ever published, is FULL OF PRACTICAL HINTS and LABOR-SAVING METHODS, learned in many years' market-gardening. Sent for two stamps. J. B. ROOT, Seed-Grower, Rockford, Ill.

FLOWER

SEEDS.

VEGETABLE

SEEDS.

Spooner's Prize Flower Seeds,

Spooner's BOSTON MARKET

VEGETABLE SEEDS.

Descriptive Priced Catalogue, with over 150 illustrations, mailed free to applicant.

W. H. SPOONER, Boston, Mass.

WANTED.

SWEET CLOVER, (Melilotus Alba,) about 500 pounds cured like hay. Any one having the above article to the amount of 500 pounds, more or less, will please address the subscriber, who will purchase at remunerative rates. Address A. J. HATCH, Reno, Nev. 2v9-1m

AMERICAN SWEET CHESTNUT TREES.

Thirty Thousand American Sweet Chestnut Trees for sale cheap, in lots to suit, at Room 32 Merchants' Exchange, San Francisco, where samples may be seen. The trees are two years old, and in prime order. Will be delivered either in this city, Oakland or Sacramento. These trees are valuable for nuts, timber, shade trees or lawn trees; and are preferred by many to any of the foreign varieties.

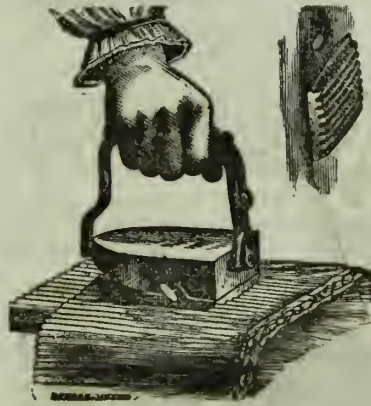
Averill Chemical Paint,
MANUFACTURED BY THE
Cal. Chemical Paint Co.
PURE WHITE, AND ANY SHADE OR COLOR.

This Paint is prepared in liquid form, READY FOR APPLICATION—requiring no thinner or dryer, and will not spoil by standing any length of time.
It is Cheaper, more durable, more Elastic, and produces a more Beautiful Finish than the best of any other Paint.

It will not Fade, Chalk, Crack, or Peel off, and will last twice as long as any other Paint.
In ordering White, state whether for Outside or Inside use, as we manufacture an Inside White (either Flat or Gloss) for inside use, which will not turn yellow, and produces a finish equal to the finest China Gloss.

Put up in $\frac{1}{2}$, $\frac{3}{4}$, 1, 2 and 5 gallon packages, and in Barrels. Sold by the Gallon.
For further information send for Sample Card and Price List, or apply to the manufactory and office,

Cor. 4th and Townsend streets, S. F.
TYLER BEACH. M. C. JEWELL,
President. Secretary.
379-cow-bp-ly



AND EXPENSES.

Men and Women Wanted
TO SELL OUR
KING IRON.

Four Complete Irons in one. Circulars and terms sent free. Address **S. M. WOODS,**
No. 205 Sansome Street, S. F.
State, County and Town rights for sale.

BELLE VIEW NURSERY

Telegraph Avenue, Oakland.

WE OFFER FOR SALE THE PRESENT SEASON A
LARGE ASSORTMENT OF

Ornamental Trees and Shrubs
OF BEST TRIED VARIETIES.

Many fine specimens of good size can be seen on the grounds to select from. Choice collections (true to name) put up for those starting a garden.
Street cars pass every fifteen minutes.

379-tf **S. NOLAN.**

OAKLAND POULTRY YARDS

Cor. 16th & Castro Streets,
Oakland, Cal.

A choice selection of Brahmas, Cochins, Houdans, Games, Leghorns, Bantams, Bronze Turkeys, and Ducks constantly on hand and for sale at reasonable prices. Eggs guaranteed to be fresh, true to name, and to reach customers safely. Also two imported Bronze Gobblers for sale; weight 38lbs; price \$10 each. Send for Illustrated Circular containing a full description of all the best known and most profitable fowls in the world, to



GEO. B. BAYLEY,
P. O. Box 659, San Francisco.

SANBORN & BYRNES.



STAIR BUILDERS.

Mechanics' Mills, Mission Street,
Bet. First and Fremont, San Francisco. Orders from the country promptly attended to. All kinds of Stair Material furnished to order. Wood and Ivory Turners. Billiard Balls and Ten Pins. Fancy Jewels and Belusters.
2578-8m-hp

DIVIDEND NOTICE.

The Farmers' and Mechanics' Bank of SAVINGS have declared a Dividend for the half year ending December 31, 1874, at the rate of ten per cent. per annum on term, eight per cent. per annum on class one ordinary, and six per cent per annum on class two ordinary deposits, payable on and after January 15th, 1875. By order
G. M. CONDER, Cashier.
379-1m-bp

STUART & ELDER,

WHOLESALE

COMMISSION MERCHANTS

FOR THE SALE OF

California Dairy Produce,

GRAIN & QUICKSILVER,

204 Front Street, San Francisco.

AGENTS FOR THE

Missouri,

Kentuck,

Ida Clayton

and Yellow Jacket

Quicksilver Mines.

All orders for Supplies and Machinery for
Mines promptly attended to.

RETORTS, POWDER and MINERS' TOOLS

Supplied at Importers' Prices.

379-cow-bp

M. FALLON,

Cor. Seventh & Oak sts.,

OAKLAND, CAL.

Light & Dark Brahmas,
Buff, White and Partridge Cochins,
Spangled, Golden and Silver Polish,
Spangled, Golden and Silver Hamburgs,
Pure White-faced Black Spanish,
White and Brown Leghorns,
Silver Grey Dorkings,
Houdans, Silkies, Black-Red Games,
Bronze Turkeys, Rouen and Aylesbury Ducks.

All from Premium Stock of Best Strains.

Fowls of above varieties for sale; also, Chickens to their season. Eggs packed with care and sent in rotation as orders are received.
179-16p-tf

**NINE FINE
FARMS FOR SALE.**

Near Middletown, Lake county, containing respectively 1600, 1100, 600, 300, 200, 200, 130 and 80 acres. The most of these places contain as fine land as there is in California, and the home market averages twenty per cent. higher than San Francisco. When we take into consideration the quality of the soil, certainty of crops, the market caused by the development of mines and the Mineral Springs, the climate and privileges of schools and religious society, we are satisfied that no such inducements can be offered in any other part of the State, to those desiring to purchase land.

Having examined all these places personally, we can give a minute description of each. Apply to

JOSEPH PETIT,
or WM. GORDON, No. 215 Kearny Street, Up Stairs.
Ring the Bell.
379-tf

KING'S NURSERY,

Twenty-fifth St., bet. Telegraph & Broadway
OAKLAND, CAL.

Fruit, Shade and Evergreen Trees, Shrubs, Roses, Etc. Persons laying out new grounds would do well to call and examine our stock before purchasing elsewhere. A large stock of EUCALYPTUS, including BLUEGUM Pines and OLYMPIA from six inches to twelve feet high. Acacias in Variety; Young Stock for Nurserymen; Pines and Cypress; Three Thousand Magnolia Grandiflora from six inches to five feet high; Camellia Japonica; Gardenia Cape Jessamine; Aucasias in Variety, at Lowest Rates. Orders attended to.
Address,
M. KING, Nurseryman,
Oakland, Cal.
379-8m

NEW CROP OF

BLUE GUM SEED.

GRASS AND CLOVER SEEDS.

FLOWER AND VEGETABLE SEEDS.

TREE AND FRUIT SEEDS.

OF EVERY DESIRABLE VARIETY AND OF THE
BEST QUALITY; OFFERED AT WHOLE-
SALE OR RETAIL, BY

GEO. F. SILVESTER,
SEEDSMAN,

No. 317 Washington Street,

SAN FRANCISCO.

1874. GUIDE AND CATALOGUE 1875.
FREE.

To persons contemplating purchasing I will send my ILLUSTRATED, DESCRIPTIVE CATALOGUE and GUIDE to the VEGETABLE and FLOWER GARDEN WITHOUT CHARGE. It contains the most extensive and valuable list of



Flowering Bulbs, Roots and Plants, Semi-Tropical Trees, Ornamental Shrubs, Fruit and Shade Trees, etc., ever offered in this market. It tells how to successfully grow the Australian Blue Gum, the Monterey Cypress, Pine, etc., and the proper method of Cultivating Tobacco on this Coast.

My stock of Seeds is in part my own raising and in part direct importations from the best European and Eastern growers, and is unsurpassed in all respects by that offered by any other establishment. 100,000 Australian Blue Gums and Monterey Cypress in boxes at from \$30 to \$50 per 1,000, from my own Nursery at San Rafael.

J. TRUMBULL,
Seeds, Shrubs, Trees, Retail Dealer in
Grower, Importer, Wholesale
2078-6m-16p 427 Sansome street, S. F.

M. EYRE, Napa, Cal.

Bronze Turkeys, Emden Geese,
Brahmas, Houdans,
LEGHORNS, and GAMES.
Black Cayuga and Aylesbury Ducks
Bantams, etc.

Eggs, fresh, pure, true to name; well-packed so as to hatch after arrival.

ILLUSTRATED CIRCULAR AND PRICE-LIST FREE.
179-16p-tf.

SEEDS. PLANTS.

OF EVERY VARIETY.

Fresh and reliable, such as experience and care only can select.

GRASS AND CLOVER SEEDS, KENTUCKY BLUE GRASS, HUNGARIAN, ORCHARD, ITALIAN RYE, RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL, CHOICE CALIFORNIA ALFALFA, WHITE CLOVER, RED CLOVER, ETC.
Also, RAMIE, JUTE AND TOBACCO SEEDS; together with a fine and complete collection of TREE SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGANTEA, PINUS INSIGNIS, ETC.

For Sale, wholesale or retail, by

B. F. WELLINGTON,

(Successor to E. E. Moore).
425 Washington St., San Francisco. 277-1y

**HEALD'S
BUSINESS COLLEGE,**

No. 24 Post Street, San Francisco.

The largest and best Business College in America. Its teachers are competent and experienced. Its pupils are from the best class of young men in the State. It is under the very best discipline. Its scholarships are good in the Thirty-Six Bryant & Stratton Colleges. It employs four of the best penmen in the State. It has the largest rooms, the largest attendance, and the most complete system of business training of any commercial school in the country.

For information, call at the office, 24 Post street, or address, for circulars,

E. P. HEALD,

President Business College, San Francisco.

12 Short-Horn Bulls,

fat and sleek, thoroughbred, just from Kentucky, at SAXE'S Stables, 35 Ritch Street, between Folsom and Harrison, two blocks from Grand Hotel. Inquire at SAXE'S Stables, or Room 32 Russ House.
379-8m

BREEDERS' DIRECTORY.

PARTIES DESIRING TO PURCHASE LIVE-STOCK WILL FIND IN THIS DIRECTORY THE NAMES OF SOME OF THE MOST RELIABLE BREEDERS.

OUR RATES.—Cards of six lines or less will be inserted in this directory at the rate of 50 cents a line per month. Payable quarterly.

CATTLE.

W. L. OVERHISER, Stockton, San Joaquin Co., Cal., breeder of Short-Horn Cattle and Berkshire Swine.

J. D. CARR, Gabilan, Monterey Co., Cal., breeder of Trotting Horses, Short-Horn Cattle, Thoroughbred Spanish Marino Sheep and Swine.

J. BREWSTER, Galt Station, Sacramento Co., Cal., breeder of Short-Horn Cattle.

MOSES WICK, Oroville, Butte Co., Cal., breeder of Short-Horn Cattle. Young bulls for sale.

A. MAILLAIRD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.

STANTON & POWERS, Sacramento, Cal. Choice Jersey Heifers at reasonable rates. Address L. C. Powers, Sacramento, Cal.

R. ASHBURNER, Baden Station, San Mateo Co., Cal., breeder of Short-horn cattle. Bulls for sale, from cows of choice milking strains.

SHEEP AND GOATS.

THOS. BUTTERFIELD & SONS, Hollister, San Benito, Cal. Importers and breeders of Angora Goats and Sheep.

N. GILMORE, El Dorado, El Dorado Co., Cal., importer and breeder of Angora Goats.

SEVERANCE & PEET, Niles, Alameda Co., Cal., breeders of Thoroughbred Spanish Merino Sheep.

MRS. ROBERT BLACOW, Centerville, near Niles Station, Alameda Co., Cal. Pure-Blooded French Merino Sheep for sale.

A. G. STONESIFER, Hill's Ferry, Stanislaus Co., Cal., breeder of Pure-Blooded French Merino Sheep.

LANDRUM & RODGERS, Watsonville, Santa Cruz County. Pure-Bred Angora Goats and Cotswold Sheep for sale.

POULTRY.

GEO. B. BAYLEY, Cor. 16th and Castro streets, Oakland, Cal. Imported Brahmas and other choice Fowls for sale.

ALBERT E. BURBANK, 43 and 44 California Market, San Francisco, importer and breeder of Fancy Fowls, Pigeons, Rabbits, etc.

M. EYRE, Napa. Bronze Turkeys, Emden Geese and other Fancy Poultry. Eggs in season.

Mrs. L. J. WATKINS, Santa Clara. Premium Fowls. Wife Leghorn, S. S. Hamburg, Game Bantams, and Aylesbury Ducks. Also, Eggs. 21v8-3t

Mrs. J. E. McMAHAN, Dixon, Solano Co., Cal. Bronze Turkeys now ready for sale from the best imported stock; also eight varieties of choice Chickens; Eggs in season can be purchased very reasonably.

C. W. WILSON, San Francisco. The largest and heaviest Bronze Turkeys the world ever saw. One pair, 19 months old, over 72 pounds now. I offer for sale extra large Toms, old & young; also Eggs. Correspondence solicited. Address C. W. Wilson, P. O. Box, 1874, San Francisco.

SWINE.

A. T. HATCH, Suisun City, Cal., breeder of Polk's China Swine.

DAWSON & BANCROFT, U. S. Live Stock Exchange, S. E. Corner 5th and Bryant streets, San Francisco. All kinds of Common and Thoroughbred stock ways on exhibition and for sale.

D. Yost, Sta. Francisco. H. S. CROCKER, Sacramento

I. S. ROCKLER & CO.,

IMPORTING STATIONERS

—AND—

General Job Printers.

401 and 403 Sansome St., S. F.

PARTICULAR ATTENTION PAID TO

Manufacture of Book Books.

BANK AND INSURANCE WORK

A SPECIALTY.

2378-8m-16p

PACIFIC COAST RURAL PRESS

Volume IX.]

SAN FRANCISCO, SATURDAY, JANUARY 23, 1875.

[Number 4.]

The School Book Question.

It is well known to most of our readers, and was published by us last week, that the State Board of Education, at their recent session in Sacramento, ordered the following changes in the text books used in the public schools throughout the State:

First—The Pacific Coast Series of Readers, to be adopted in place of McGuffey's Series.

Second—The Spencerian System of Penmanship, in place of the Payson, Dnnton & Scribner's Series.

Third—Cornell's Geographies in place of Monteith's.

This action of the Board has excited much adverse comment in the papers of the State; and some journals have gone so far as to advise the people to resist the action of the Board, and refuse to introduce the changes proposed. Many of the Subordinate Granges of the Patrons of Husbandry have also joined in this opposition, and passed resolutions expressive of their disapprobation of the change. So far, according to the best of our recollection, the publishers of this journal have been silent upon the matter, and chiefly for the reason that they have not had the opportunity, or taken the time to look into the merits of the controversy. Within the past few days, however, so much interest has been awakened on the subject that we have felt called upon to express our opinion; and not wishing to join in the almost universal condemnation of the Board, without first inquiring into the matter, we have taken occasion to examine somewhat carefully into the merits of the controversy.

This inquiry has primarily resulted in the conclusion that the objection to the proposed change has culminated mainly in

The Expense Involved.

It is asserted that the change will cost the people of the State from \$250,000 to \$500,000. This, if it was a fact, would be a heavy tax indeed, and one which should be carefully inquired into. But let us figure a little. Careful estimates with regard to the series of readers—the first change ordered—based upon past sales show, if the change should be made at once, there would be called for during the year:

First Readers, 40,000, at 20 cents each.....	\$8,000
Second " 20,000, " 35 "	7,000
Third " 15,000, " 55 "	8,250
Fourth " 10,000, " 60 "	6,000
Fifth " 5,000, \$1.00 "	5,000

These figures present a total of \$34,250, instead of the assumed sum of \$250,000 or \$500,000. Even \$34,250 would be a large tax to impose upon the people. But when we examine the matter still more closely, we find that even that sum, as a matter of actual cost, is greatly too large. The real cost is reduced in fact to quite or almost nothing by the proposition of the publishers of the Pacific Coast Series to make an even exchange with all such as now have the old series; that firm agreeing to furnish a new and perfect copy of each one of the new series for every copy of the McGuffey Series which shall be found in the hands of a pupil, serviceable for use in the school—the teacher, local agent, or even the parent being the judge of what shall be considered serviceable. Some little caviling having been indulged in by some of our contemporaries to the effect that such exchanges will be hampered with impracticable conditions, we will say in reply that we have satisfied ourselves by personal inquiry that every reasonable facility will be offered for making the proposed exchanges.

Assuming that the cost of the readers now in the hands of pupils was \$34,000, we must admit that a depreciation has occurred of at least one-third—say \$11,000—which, when the exchanges are effected, will be just so much saved to the pupils. This is an important item to be taken into account, and one which will change the aggregate loss on books which might possibly be made to answer a few weeks longer, but which neither teacher nor parent could reasonably pronounce serviceable, to a positive aggregate gain.

Another important point involved in the change will be the fact that we are thereby

carrying out the favorite policy of this State, to support—as far as practicable—our home industries; for, as per contract, these books must all be printed and bound in California, and by their adoption we are keeping in our own State the large sum of money which has heretofore been sent East every year for the purchase of this class of books. This is a point that in deference to a growing public opinion would necessarily have to be made at an early day. What better time to make it than the present when it can be done at little or no extra expense to the people?

So much for the item of cost. But there is

men waiting for something to turn up. This small army of retainers was sent all through the Northwestern States. * * * A few thousand dollars judiciously spent in feeding school boards finished the business, and the McGuffey Series was triumphant. * * * After a lapse of more than a quarter of a century these books are dug up and brought out to California; and, strange enough, we are assured that a majority of the Board of Education having been seen are on the point of adopting this series to the exclusion of other and better books.

The *Alta* of July 12th, 1870, said:

* * * On the question of the substitution of McGuffey's antiquated elocutionary rubbish for Wilson's improved and excellent series of readers, public opinion is all one way.

The *Sacramento Union*, Sept. 14th, 1871,

with all the light and experience gained up to the present day; and with special reference, moreover, to its use on the Pacific Slope. We shall dismiss this part of the subject by merely referring to the fact that the Pacific Coast Series has been fully endorsed by 37 out of the 47 County Superintendents in the State who are not upon the State Board; which expression of sentiment was no doubt one important inducement which prompted the Board to vote for their substitution.

The Change in Penmanship and Geographies.

The second change made by the Board was in the matter of Penmanship. We profess to no knowledge as to the respective merits of the two systems in question; but as this change does not involve any cost—every pupil being obliged to open the year with a new book of some kind, this matter does not seem to enter into the controversy at all.

In regard to the change made in Geographies, we understand that the Monteith Series, which has been in use for three or four years past, has been revised during the past year, which revision will call for a very early and general change in this book, even if no other series is adopted. Under these circumstances no extra expense is incurred; for this and for the further season that a large majority of the State Board considered the Cornell Geography the superior of the two; a change was ordered by a vote of seven to two. The change in Penmanship was made by the same majority. Mr. Bolander, who has been the most active of any member of the Board in opposition to the change in the Readers, voted for the change in both these instances.

Under ordinary circumstances, and on general principles, we are opposed to changes in text books for the public schools; but in the light under which this matter appears to us, on a careful examination into its merits, and for the reasons given above, we are forced to the conclusion that the State Board has acted wisely in the matter; that the press of the State has made an unjust and unwarranted attack upon them, and that the second, sober judgment of the people, formed from a correct understanding of the whole subject, will sustain the act of the Board in making the change.

If our readers will make a careful examination of the question at issue, we are fully persuaded they will arrive at the same conclusion to which we have come. We may here remark that we have entered into this examination without any suggestion from any member of the Board or any other party, and solely from a desire to know the full merits of the question, and to spread the same before our readers and the public generally. If we have arrived at a wrong conclusion we are willing to listen to any facts which may tend to put us right, and our columns are open to both sides, provided correspondents will write briefly and to the point.

A Late Plum.

The accompanying illustration represents the late ripening plum, *Rein Claude de Bavay*. The fruit is of large size, roundish, oval, oblong. Color, greenish yellow, with stripes and splashes of green, covered with a thin blossom. Suture, medium; apex, dimpled; stem, short and stout, planted in a rather deep cavity. Flesh, yellow, sugary, juicy, rich, excellent. Stone, small, from which the flesh separates freely. Season, late.

The tree is a vigorous grower, with smooth branches, large, broad, ovate, rounded, pointed leaves, with rounded, irregular serratures; very productive, of foreign origin, and a valuable acquisition to late ripening varieties.

To S. A. H., OF BORDEN.—The item to which you allude found its way into our columns through inadvertence. It has been the purpose of the publishers of this journal to avoid the discussion in its columns of all partisan or sectional matters. A reference to our columns from the very starting of the *Press* to the present time, will fully bear us out in the above assertion. We believe that we have other interests quite sufficient and of ample importance to occupy all our time and space



A LATE PLUM—REIN CLAUDE DE BAVAY.

another matter which has been overlooked, or rather which appears to have been studiously kept out of sight during this controversy. We refer to the

Relative Value of the Books as Educational Aids.

With regard to this, which, after all, should be the main point to be considered, the journals which have been most active and loud in their denunciations of the action of the Board have been entirely silent; for the reason, we presume, that they are all strongly committed to an opinion against the McGuffey Series, as will be shown by the following extracts:

The *Bulletin* of July 11th, 1870, said:

What can be the object, for instance, of digging up out of the rubbish of the past the McGuffey Series of Reading Books. These books were introduced into the public schools of the West more than a quarter of a century ago. Prof. McGuffey, of the Missouri University, at the solicitation of W. B. Smith & Co., a publishing house in Cincinnati, employed the paste-pot and scissors for a few weeks, and produced what in those days was considered a tolerable series of reading books. They employed a large number of young men of good address—law students, medical students, teachers, clerks out of employment, and professional

referring to the McGuffey Readers, says:

* * * An old series, originating in Virginia, in the brain of a babbling about the revolution of '98, that had gone into desuetude long ago, has been substituted to the great delight of certain book makers.

The *Call* of July 14th, 1870, speaking of the same readers, says:

* * * This body of men elected by the people, has gone back thirty years along the path of progress, and resurrected an old set of books which has been buried out of sight under the dead leaves and debris, which the ages, in their onward march, pile upon things which have served out their period of usefulness and given place to others better adapted to the pure and more advanced conditions.

We might continue such extracts almost indefinitely, and introduce many other papers published in different parts of the State, that are now loud in their denunciations of the exclusion of the McGuffey Readers; but the above is amply sufficient to show the opinion of these papers with regard to the inferiority of this series as school text-books, while next to nothing has been uttered deprecatory of the Pacific Coast Readers.

This series has been carefully compiled,

CORRESPONDENCE.

[The RURAL PRESS, in opening the columns of this department to its correspondents, does not desire to lay before its readers anything which is not in keeping with its character and position as an agricultural and family paper. Facts are always thankfully received; and suggestions and matters of opinion on subjects connected with agriculture are also acceptable; though correspondents are to be understood as speaking for themselves and not for the PRESS.]

The Season at Sacramento.

State of the Weather.

EDITORS PRESS:—Our valley has been shrouded with thick fog for a month past, which is one of the peculiar features of our climate as well as her variety of soil. Frost, too, has nipped the tender blade, but not enough to destroy the pasture. Glancing over the valley can be seen at every space the tiny spear of grain springing forth over thousands of acres. For no year since its first settlement has the earth received so much cultivation. It has not yet suffered for want of rain, for it has been moistened by the dews of heaven; and with what rain we shall yet receive, the harvest will be great if the laborers are few.

The Orchard.

In the orchard the husbandman has entered, and the wayward branches has felt the keen edge of his knife—pruning here and there to give it symmetry and form. Where there is a dead trunk found a living one is placed. The old way of pruning high, leaving the trunk exposed to the sun's rays in summer, is discarded by many who see the folly of it. Leaving the branches low and of uniform height is recommended by those who have proved it. We should not forget to mulch our trees, and have the bark washed in strong soap-suds, giving it a clean appearance. A mixture of salt and ashes, lightly thrown around the trunks, will act as a fertilizer, and make them vigorous and strong. Many of the trees, when dug up out of the nurseries, are left with too short roots. Many complain that they are also trimmed too high. This is a good time to plant, and many are improving the opportunity, planting new California seedlings of peaches, almond, American chestnuts, walnuts, with other nuts, beside shade trees of many varieties.

In the Vineyard

Many are busy with their pruning shears, carefully cutting the vines, and leaving a smooth surface dressed for the coming vintage. Others, with different opinions, will delay until another month, as the location and soil makes a difference in the growth and quantity in bearing. Some have a new idea in disposing of the surplus vines: As the growth is not so rank as in deeper soils, they are being clipped off short, and cover them by plowing—holding that time is saved; then by picking and handling them away—also in fertilizing the soil; for fear the ground will dry too much they have put the plows at work, doing what work they can, so that time can be saved in summer fallow in the spring. Some, I notice, are plowing and clipping afterward, or plowing them in the spring. Some hold that the plow should never enter the vineyard, and that it should be worked only by cultivators, for fear of cutting off the surface feeders. This is true to some extent. I find still another method doing away with the single plow that comes in contact with the feeders—by using a double shovel plow. Plow first in the center two or three furrows with the large plow, then cross it with the double shovel plow with single horse; then, by cutting up the center core near the vines, and leveling the ground, and keep working it both ways by the same plow, until the vines get too long to cultivate them. I work also my small fruit with it, and orchard also. As the foreign wine variety bears lighter than the native long stem, pruning is resorted to—such as the Reisinger—others are grafted with the native, as they both take the same expense in cultivating, and will bear more in quantity to make up the difference in price. The native, with the exception of Orleans, Reisinger and Zinfandel, stand foremost in the eye of the vintage.

Tropical Fruits

Are being agitated to some extent in this section of the State and are grown with some success, for with the vine, and fig, the orange and lemon are coming in for their share of honor; but whether we will succeed to rival the southern portion of the State, time itself will develop. There are within the limits of the city many oranges growing, and in bearing; so too on a number of farms adjacent to the city, which has been by way of experiment more than anything else. True, our climate is favorable for the growth of the orange, and the frosts of winter do not kill it. Our own soils promote its growth. Still, there is something lacking that gives it the flavor, and its natural adaptiveness that is only found in a portion of the south to make it a success.

Scals Bug.

As this bug has been found among the branches of the orange trees in many orchards of the State, on examining mine I found them thick. There are three remedies: wash with strong soap suds, tobacco infusion and whale

oil. I experimented with the first, took a scrub brush and washed with the first remedy with good result, without purchasing a Babcock fire extinguisher.

Small Fruit.

The strawberry bed must come in for its culture and care. The work is principally done by a single horse with cultivator and double shovel plow, finishing with a hoe, thus working up the soil between the rows; leaving it open so that light and air may permeate throughout, warming the soil by so doing till spring opens, while the flowers will set and fruit will mature earlier. The dead foliage that is left on its surface is sufficient mulching, as they do not require highly manuring. If too rich the growth will increase in foliage, and is less in fruit. There is, perhaps, 30 acres in cultivation within the radius of seven miles of the city. A large portion is consumed in the city, the balance shipped to various points of the mountains.

The blackberry and raspberry are free from their old stocks. By summer plowing the new shoots are kept from spreading, and the stalks grow strong standing by their own weight, thereby doing away with stakes. A good dressing of hen droppings mixed with stable rotted manure scattered over the surface of the beds forms a rich compost, the rains of winter washing its contents around the thick clustered roots and a sufficient moisture, when in bearing season, will yield a large crop, and pay the cultivator for his pains. The blackberry is cultivated to a large extent. The Early Wilson and Kittakinny come in first, but the Lawton is more extensively raised. But few raspberries are being cultivated, but the number is increasing.

The Flower Garden

Should not be overlooked; it too is being shorn of its surplus branches and stems, thereby giving it a finer appearance for the New Year. Already the bulbs are bursting, the tulips, crocus and hyacinth are sending forth their blades from their hiding places and here and there are roses in mid winter with buds and blossoms. The yew, cypress and juniper decorate the ground. The palm, with its broad fan leaves, and the orange and lemon with their golden fruit. The pomegranate in its burst form showing its rows of red seed. The eunonymus with its green, silver and golden tinged foliage, and the myrtle hedge are found in many gardens in our dried plains.

The Kitchen Garden.

The last, but not the least, is an indispensable article to the housewife, who watches its growth of vegetables as keenly as the lord of the mansion. Already the peas, turnips, onions and many other vegetables are up and watched daily. These will save many a dime in the farmer's purse, beside enjoying them more as they come fresh and crisp. Asparagus beds can easily be made sufficiently for family use; once made will last for years; each year work in a dressing of rich compost. A few rows of early potatoes put in now, and corn, in the spring; sets of tomatoes and cabbage, and you will find it a luxury after a hard day's work.

GEORGE RICH.

Sacramento, Jan. 13th, 1875.

From the Sierras.

EDITORS PRESS:—Long and earnestly have I tried to find time, and a fitting theme, to write to you. Solitary life in this Alpine retreat gives the time at last, and opolosed is the theme. I have written not so much because I had time, but because I owe you something for the valuable favor of your excellent paper. In fact, I am very busy, and grudge every minute's infringement upon my time, which is devoted to studying natural history—botany in particular. With no neighbor within eight miles, down in Sierra valley, molesting no one and in no one's way, I spread my flowers in their respective families on the many dining tables and floors of Dr. Webber's large hotel here—deserted now but thronged in summer—and examine and distribute at will. My mail is brought up by trappers on snow-shoes occasionally, so I still hear from the pulsating world. A few friends have bravely visited me, and more would visit but for fear of that man killing grizzly bear, whose haunt crosses the direct trail from Sierra valley to Webber lake, near which he killed Mr. Berry, and not in Surprise valley, 70 miles distant, as a printer's mistake at Downieville led you to repeat, with your illustration, December 26th. "Old Bruin," or "Club Foot," is often seen by and well known to the habitues of Webber lake. A steel trap, weighing 80 pounds, has been made for him, but he seems to throw it off with the ease of smaller ones, but suffering the injury once that names him "Club Foot." He has been so often the target of hunters that Dr. Webber declares he must carry an oyster can full of bullets in his shaggy hide. Generally he quietly holds whatever position he assumes, the human intruder at sight of the monster, being quite willing to retire, thankful that he is considered too insignificant for pursuit; but now the bear has killed his man, and the taste of human blood may induce a change in his appetite. The citizens of the vicinity are determined to hunt him to the death when next his locality is betrayed.

I enclose a few specimens of the Alpine flora, some illustrating the enclosed article. Nearly all my collections of the season were sent to Dr. Gray, who at great personal sacrifice of time and attention is naming and distributing them. My deepest gratitude is due him and others for their great kindness to one so undeserving.

If you publish my article and make any editorial notes from this letter, I will feel grateful, and enclose a few stamps for extra copies. My business is distinctly selected. I am an amateur botanist and collector. I believe in advertising. No advertisement is better than a short, distinct, editorial notice, exactly defining one's business and telling where he may be found. Be sure to put me up as residing in Sierra valley, California. Webber lake is only my winter retreat. With the earliest flowers I shall be down in the valley and on the mountains east and north—the seeming *terra incognita* of California.

Thanking you for the liberal favors tendered me in the past, I pledge you a little more attention in future, and wish you a happy and prosperous New Year with as many more better and richer ones as you care to see.

Yours very sincerely,

J. G. LEMMON.

[The contribution alluded to in the above will appear in next week's issue. The readers of the Press will certainly join with us in offering thanks to the writer for the highly interesting and agreeable article. The accompanying floral specimens arrived in excellent condition; and for these, also, Mr. Lemmon will please accept our hearty thanks.—EDS. PRESS.]

Tuolumne County.

EDITORS PRESS:—Our roof is musical with the dripping rain. After a long drought the gentle rain begins to fall amongst the foot-hills. And it is to be hoped will reach far down and over the vast plains which so much need the refreshing shower. It comes at this time with the richest blessing for the whole country. The dry weather had almost discouraged the husbandman, but heaven forsakes not man, and does all things for the best. If we had only faith in the Disposer of events, doing our duty in the premises, we might be satisfied to leave God's duty in his own hand, without grumbling. In 25 years I have not seen a better prospect, or a better season for stock amongst the foot-hills. For the last six weeks cattle have thrived on the young green grass, something never known since 1850. In riding round among the foot-hills, it is surprising to see so many settlements, and so much broken and sowed ground. Homes are being erected in places never dreamed of as being of value, except as good pasture land for herds of stock. It is really surprising to see the difference of appearance after a year or two's location and improvement. Good fences, houses, natural springs, small gardens, barns, corrals, cows, horses, with here and there a herd of sheep lazily nibbling the green herbage.

Good for the propagation of healthy ideas, I stroll amidst a forest of foot-hill ranches and witness the energy of pioneer farmers establishing homes amidst considerable up-hill work. I could not help contrasting the present outlook of the different settlements in all sorts of angular corners with the health and wealth of such places, a century hence. The same places in Europe would be worth a fortune; and I asked myself the question—what hinders the fortune from coming here as time weaves her web of progress. The oak timber amongst the foothills is even now a source of wealth, and will increase as the timber becomes scarce.

I started out to give you some news and wonder why fate removed us so far from our native home on the banks of Tay, Scotland! The space between—a mere frog-leap—a stretch of thought only. The present seems so much like the past that our present fireside seems still in sight of the old feudal castle, and the city of Perth, within an hour's walk. Let us examine the bridge between. Ah! it was off—almost—the bridge of sighs! We will draw a veil over the abyss, and lift our gaze to the proud and lofty Sierras, whose white summit speaks of strength and purity, to the green vales all around us, and to the smile of our better half, and the kisses from Tuolumne county, and only touched upon its lower borders. It is a wonderful county in more ways than one, and has a sort of fascination in creating a home feeling of veneration in those who have made homes amidst her glens and those who have left her for other scenes. No other county in the State maintains such a fraternal feeling as "Old Tuolumne." She is prolific in everything she undertakes. Her fruit bears the palm; her vines never give out; her marble is inexhaustible; her trees are tall and useful, and her rivers clean and rich in gold. I think of myself, sitting here in one of Tuolumne's glens—of rosy-cheeked Californians; and then thank God that I am a dweller among the foothills of "Old Tuolumne." JOHN TAYLOR.

January 13, 1875.

Tree-Planting, Under-Draining, Etc.

EDITORS PRESS:—We have finished planting an orchard. The trees were set in holes 42 inches wide and 36 inches deep. About one-fourth of the loose dirt was first shoveled back, then a bushel of bones, to serve as an under-drain, and to furnish nourishment for the roots; when more soil was added, and the tree carefully planted. Too much care and labor cannot well be expended in this planting of a tree, the larger the excavation, the more room furnished for the young rootlets to draw supplies, the greater the rapidity of growth. Farmers expecting returns from young orchards must not get in a hurry and stick the trees down in narrow holes where every attempt of the roots to branch is met by a hard pan that also holds water in the rainy weather like a basin. I prefer to plant fewer trees, and to do it thoroughly.

Our tile factory is in a prosperous condition. Many farmers are laying them. It is an important agent of enlightenment in matters of husbandry. Men who read the papers, particularly agricultural papers, appreciate the undertaking by patronizing it, and do themselves good also. Wheat after wheat for a generation will impoverish even a California farm. The fertility of the soil must be kept up, and underdraining is one of the cheapest methods of doing it.

The wheat crop is looking splendidly in the Santa Rosa valley. More than the usual breadth of land has been planted, and more is going in. The frost and drouth have not, as yet, unfavorably affected the pastures; grass is from six to eight inches high and luxuriant. A lot of alfalfa on the Torrence farm, at the crossing of Russian river, is in fine condition. It is growing in the rich alluvial soil once covered by a redwood forest, where its roots have ample room to forage for sustenance. If anywhere in the State one acre can be found to sustain five head of horses the year round with its product, this is the acre to do it.

It is 47 days since the November rains; only two light showers have fallen since. The ground is in fine condition for agricultural purposes—not dry—just right to work. The clear days and frosty nights make bracing weather for all out-door employments. Old residents claim that this valley will make a large crop without more rain; still, we think a few showers in the spring will be acceptable. We have had over 13 inches.

This is a region comparatively little written up until the local newspapers began to do so from a new born appreciation of their surroundings. Unlike some other portions of the coast, there are no real estate associations to advertise it; nor were there, until lately, interior lines of communication opened up for routes of travel. Tourists hardly ever came, and little was heard of the second, if not the first, agricultural and fruit county in the State. The magnificent beauty of its scenery, and the fertility of its soil will furnish themes yet on their own merits. J. B. ARMSTRONG.

Santa Rosa, January 11th, 1875.

How to Destroy the Alfalfa Parasite.

EDITORS PRESS:—While reading the very interesting article on alfalfa parasite in this week's Press, I had brought to my mind the manner in which I removed—or think I have removed—from my little field the objectionable evil. Now, dodder, or alfalfa parasite, is a very tender plant, and cannot stand frost i. e., its appearance indicates as much. I, therefore, acting upon this latter conclusion, kept my clover closely fed, thus retarding the ripening of the dodder seeds which had not occurred on the appearance of the recent heavy frosts; and now I fail to discover any traces of parasite. Whether or not, it will again appear with warm weather, is a question to be determined when springs come; of which I will advise your readers fully. A. KAMP.

San Jose, Jan. 15, 1875.

WHY NOT EAT OYSTERS IN SUMMER?—According to the popular notion; which, in the main, is correct, the spawning season of the oyster embraces those months which have no r in their spelling, namely: May, June, July and August, the four warm months in the year. The fact is, that oysters generally, do their spawning during these four months; but a few are liable to spawn whenever the water is warm enough, and large numbers pass through the year without spawning; and these, were it not for the difficulty of assorting them, would be available for food at any time. But the prejudice is universal against their use during the r-less months. That they are not in as good condition then as during the cooler months, is reasonable to suppose; but that they are all necessarily unwholesome in the warm months, is far from being proved. In business phrase, oysters in spawning time are said to be "milky." This means the presence of an opaque fluid in considerable abundance, and which has to do with the wants of its young—perhaps, remotely, a sort of fluid of annihilation.—*Popular Science Monthly.*

Brooks' Improved Process of Distillation.

We take pleasure in laying before our readers an improvement in distillation, which the inventor, Mr. Robert C. Brooks, of this city, has just patented through the MINING AND SCIENTIFIC PRESS Patent Agency. Before describing the process we will state that Mr. Brooks is a practical distiller, of about thirty years' experience, the last ten years of that time having been expended in completing the improvements which he has just secured by patent. By the new process and improved apparatus the inventor claims to produce alcoholic spirits directly from the still, and by a single distillation, which are absolutely free from fusil oil. We have seen the reports of several of our best chemists, who have analyzed the products of Mr. Brooks' process and which verified his claims to purity and the absence of fusil oil. It is held by many persons that whiskey without fusil oil would be of no value, in fact that it would not be whiskey, but alcohol. This error of opinion arises from the fact that fusil oil, or amylic acid, as it is chemically known, is erroneously supposed by many persons, and even in some of our standard books, is defined as the oil of grain, oil of potato, etc. Mr. Brooks has discovered, and his experiments have proven, that the essential oil of grain is an entirely separate product, which vaporizes below, or at about the boiling point of water, 212° Fahr., while fusil oil requires a temperature of 280° to be converted into a vapor. This would therefore spoil such an argument. All the volatile products which are obtained from wort, volatilize below the boiling point of water, except fusil oil, and between the boiling point of these two products there is a difference or space of temperature of about 70 degrees. Mr. Brooks takes advantage of this difference or space of temperature to prevent the volatilization of the fusil oil and leave it in the spent wort, and to do this he has invented an improved distilling apparatus which he has also secured by letters patent. This apparatus is so constructed that it is impossible to obtain a temperature in the upper chamber of the still exceeding the boiling point of water or 212° Fahr. Consequently we can only convert to vapor those products of the wort which volatilize at a point below that temperature, thus leaving the fusil oil and a large portion of the water in the wort. The ether which is first volatilized, is condensed and withdrawn entirely from the still before the alcoholic product begins to vaporize so that the subsequent operation proceeds without hindrance.

Mr. Brooks calls his still an automatic pulsating still, because when it is at work its operation is automatically intermittent, thus producing a pulsation as the products of different specific gravities pass up into the condenser.

We cannot spare the space in which to describe the complete construction and operation of this improved apparatus, and to attempt to give the reader a full understanding of the claims of the inventor, without such description would be folly. We will, however, attempt to show the importance of the invention and explain the theory upon which it is based.

Wort, which is the fermented solution from which spirits are obtained contains four volatilizable products which vaporize as follows, (Fahr): ether, 173°; alcohol, 188°; water, 212° and fusil oil, 269°. It will be seen that the water product stands between the alcohol and fusil oil, giving a clear space of 81° Fahr. of temperature between the desirable and undesirable products.

In Mr. Brooks' apparatus he employs a condensing and separating vessel between the upper chamber of the still and the main condenser through which a constant stream of cold water is made to pass, and this vessel receiving the vapors of ether which first pass from the still condenses them without allowing them to pass into the worm of the still. The condensed ether is then withdrawn entirely from the still before the next product (alcohol) enters the vessel. The condensation of the ether raises the temperature of the vessel so that the alcoholic vapors will pass over into the worm and to the main condenser before it is condensed.

Messrs. Van Winkle & Brooks the proprietors of this patent have a large still in practical operation at School House station, near this city, with which they have proven beyond a doubt that the result of their process is all that is claimed for it.

As is usually remarked in such cases the greatest wonder is that distillers have been so long seeking for some method or process for freeing spirits from fusil oil without discovering this simple common-sense plan. Frequently the very thing we seek for lies just at our doors while we explore the country in a vain search for it. The rationale of the process comprises nothing that is not familiar to the chemist. It only required that this and that be put together and a practical means of carrying out the plan devised to produce the long looked for result. We shall speak again of this invention as it is developed.

CASTOR OIL AMONG THE CHINESE.—A writer in the *Journal of Applied Science* states that castor oil has so little effect on Chinese intestines that the Celestials use it habitually in cookery.

Piling Wood on a Side Hill.

We have received the following letter from a correspondent in Auburn: "Will you please answer this question:—a man buys a quantity of wood, and the seller hauls and piles it on a smooth, steep side hill. The wood is piled between two stakes, just eight feet apart, and four feet high. The stakes stand perpendicular, but one is raised high above the other, as the hill side raises, the pile of wood lying up and down the hill. The hill rises at an angle of 45 degrees. The wood was piled up to the full height of the stakes in a satisfactory manner. Now, the wood man claims that there is a cord of wood in the pile while the other party says there is not a cord. Admitting that the stakes are eight feet apart, and this space filled up to the full height with wood of the

Fig. IV.

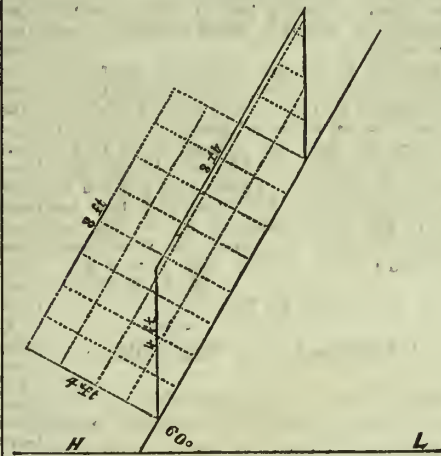


Fig. III.

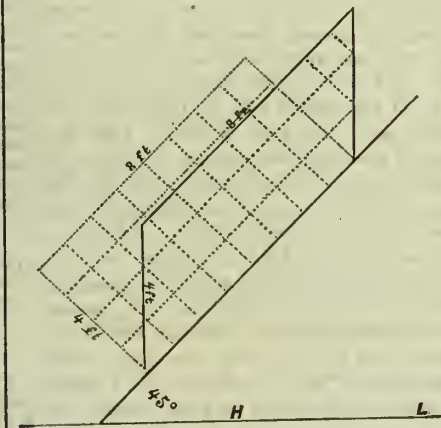


Fig. II.

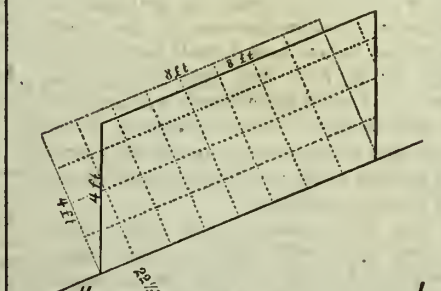
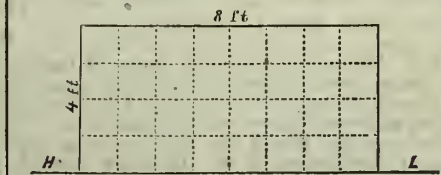


Fig. I.



proper length, the question is—is there, or is there not, a cord of wood in the pile on the side hill. The subject has become one for general discussion here, and many of us are interested to know who is right."

A cord of wood measures eight feet in length, four feet in height, and four feet in width. Piled on level ground, it contains 128 cubic feet of wood. But when piled on a hill at an angle of 45 degrees with the same measurements, in the way it is usually piled, there would be only 90.56 cubic feet in the pile. Therefore when piled on a hill rising at an angle of 45 degrees, the buyer would lose 37.44 cubic feet of wood.

This does not seem apparent at first glance, we have heard some warm arguments over the question, but a little investigation shows it to be true. We have prepared a few diagrams to illustrate the decrease in cubical contents in a simple way. Figure 1 shows a cord of wood eight feet long, four feet high and four feet wide. Figure 2 shows how it would appear at

an angle of 22½, representing the true cord by dotted lines and what is usually considered a cord by wood-choppers, by the straight black lines. H L, is a horizontal line. Figure 3 shows it piled at an angle of 45 degrees, and the loss of wood may be easily seen to be more than a quarter. Figure 4 shows it piled at 60 degrees, in which instance, although the outside measurements are the same, more than a half cord is lost. The usual method of measuring the wood is the same in each case. The stakes are perpendicular and the pile measures four feet in height by the stakes and eight feet in length. Nevertheless, as the angle increases the cubical contents decrease in proportion. While the stakes would not decrease in length and the measurements would remain the same, by increasing the angle, there would not be any wood at all.

Any one can illustrate this for himself by taking a small piece of board and inserting two pieces of wire, each say four inches long and two inches high. These can be placed upright in the board as if enclosing a pile of wood of certain dimensions. Now cut a number of small pieces of wood of equal length and fit them in between the wires. After that remove the pieces of wood, set the board at an angle of 45 degrees, and bend the wires so as to stand perfectly upright. Then pile the pieces in again and you will find that you have more wood than you can get in between the wires. This will illustrate the question practically to those who fail to see it themselves.

Although people do not always buy wood piled on hills of 45 degrees, they often buy it on hills nearly as steep, and perhaps few have thought it made any difference as long as the pile measured the same at both ends and was of proper length and width. Our diagrams will show that they do not get as much wood as is coming to them. Our wood-choppers may not relish the idea of always having to cord the wood on level ground, but if purchasers desire full measure they ought to insist upon it. The "practical man" who is skeptical and does not believe "but that there is as much in each pile, had better pile a cord upon a level and then pile it between his stakes as usually set on a side hill, and he will find that his wood goes up over the top of the stakes.

The People's Banks.

The following financial article has been sent to us for publication. The writer is a practical dairyman; and as a practical financier, he is rather noted for having conducted his business through its different stages without running into debt. He prides himself on this, as a farmer should:

1st—To a trafficking people like us of the United States a circulating medium is a necessity, in order to facilitate the transaction of business.

2d—This circulating medium should be something that is current in all parts of the country among all of the people, and it will be proper to call it currency or money.

3d—This currency should be made of some material that is of little value in itself, so that, if it is sunk in the ocean or lost in any other way, there will be a minimum quantity of human-labor wasted; and it must be light and easily transported from place to place with facility and little expense.

4th—The value of this currency must depend upon the honor and ability of the party issuing it.

5th—Paper properly executed will answer the first three of these demands.

6th—The people of the United States are able to fulfill the conditions of the fourth demand, and he great gainers individually and collectively; but the question is, how shall it be done?

7th—The Government shall make one uniform currency of convenient denominations for business, and establish banks in every State and territory, according to the wants of the people, where this currency can be obtained by those who give the proper security.

8th—This currency shall be loaned to every one who will give the proper security; and the interest shall not be over four per cent. per annum to begin with, and be gradually reduced after a few years, when the Government is out of debt, to two per cent.

9th—This currency shall not be called in until the borrowers wish to pay it, provided the security is good and the interest promptly paid.

10th—This currency shall be lawful money after the banking bill is passed, to pay all debts, salaries, taxes, fees, Custom House duties, etc., except our gold debts and bonds, which shall be paid in gold if demanded.

11th—We will dispense with all of our mints except one, which we will keep to coin some gold, if it is necessary, to pay our debts that call for gold coin; and when the gold debts already contracted are paid, we will contract no more; then, of course, we will have no more use for mints.

12th—Any person can change this currency into United States bonds, which shall draw about ½ less per cent. interest than the Government receives for currency.

Remarks—This plan, if adopted, will work against monopolies; it will give every person a fair chance; help the Government pay its debts; help many a family in moderate circumstances to give their children a superior education at the proper age without burdening themselves with too much labor or encumbering their property with exorbitant interest or sudden payment. It will put an end to money crisis; will place interest on such a basis that there will be no need of usury laws in any of the States. It will induce many private bankers to invest their money in such manufacturing establishments as we stand in need of. Then we can export more manufactured articles and import less. It will place the country and the people on the high road to a prosperity greater and more permanent than most of us ever imagined possible, even for the people of this flourishing nation. Let the laws for the punishment of all kinds of thieving be ten times more severe than they are at present, and in a few years the Government will be out of debt, and the people will bless their financial system.

FREEMAN PARKER,
Sec'y Petaluma Grange,

Petaluma, Cal.

USEFUL INFORMATION.

A NEW "RATSANE."—And now the flowering plant "asphodel," is to drive away the rats wherever they may be. This is a perennial, but where it is to be obtained we know not. Perhaps at some of our seed-stores. We, however, would not advise the destruction of all the cats until after a thorough trial and proof of the efficacy of the new "exterminator."

[The asphodel is a fine garden bulbous plant much cultivated in Europe. It has a stem about three feet high, thickly covered with three-cornered yellow leaves. Its flowers are of a yellow color, reaching from near the base to the top of the stem. The ancients were in the habit of planting the flowers in burial places, to afford nourishment for the Manes of the dead. It is said that the bulbs of some varieties of this plant, when dried and ground to powder, make an excellent glue.—Eds. PRESS.]

ARTIFICIAL FURS.—M. Tussaud, of London, suggests an ingenious way of preparing the hair or fur of animals for use without employing the skin. The process consists in first soaking the fur in lime water to loosen the adhesion of the hairs. After washing and drying, the piece is stretched upon a board, fur side up, and a solution of glue laid over it, care being taken not to disturb the natural position of the hairs. After the glue has hardened, the skin may be pulled off, leaving the ends of the hair exposed. The latter are then washed with proper substances to remove fat, bulbs, etc. An artificial skin of gutta percha, or other waterproof substance, is next laid on top of the glue and allowed to dry, so as to form a continuous membrane, when the glue is washed out with warm water. These artificial skins are entirely free from any animal odor, and are more durable, lighter, and more pliable than the natural ones.

CEMENT FOR ATTACHING LABELS TO METAL.—Many of our lady readers have no doubt been much troubled in putting up fruit, to make the labels stick to the tin cans. The *Medical Journal* says that a paste made as follows will meet the case: Ten parts tragacanth mucilage, ten parts honey, and one part flour. The flour appears to hasten the drying, and renders it less susceptible to damp. Another cement that will resist the damp still better, but will not adhere if the surface is greasy, is made by boiling together two parts of shellac, one part of borax, and sixteen parts water. Flour paste, to which a certain proportion of sulphuric acid has been added, makes a lasting cement, but the acid often acts upon the metals.

WEATHER OBSERVATIONS.—When you wish to know what the weather is to be, go out and select the smallest cloud you can see. Keep your eyes upon it, and if it decreases and disappears, it shows the state of the air which will be sure to be followed by fine weather; but if it increases in size, take your great coat with you if you are going from home, for falling weather is not far off. The reason is this: When the air is becoming charged with electricity you will see every cloud attracting all lesser ones towards it, until it gathers into a shower; and, on the contrary, when the fluid is passing off or diffusing itself, then a large cloud will be seen breaking to pieces and dissolving.

THE FIRST PATENT.—It is said that the first patent issued by the United States was granted to Samuel Hopkins on July 30, 1790, for the manufacture of pot and pearl ashes. The third was to Oliver Evans, of Philadelphia, so famous for inventions in high pressure engines, of whose inventions President Jefferson remarked that "it was too valuable to be covered by a patent, and there should be no patent for a thing no one could afford to do without after it was known." This was in December of the same year in which Hopkins obtained his patent. For many years after this date the Patent office was but a clerkship in the State department.

PAINTING OLD BUILDINGS.—An inexpensive but durable method of painting old buildings is as follows: First give them a coat of crude petroleum, which is the oil as it comes from the wells, and which can be procured for four or five dollars per barrel. Then mix one pound of "metallic paint," which is brown or red hematite iron and finely ground, to one quart of linseed oil, and apply this over the petroleum coat. The petroleum sinks into the wood, and makes a groundwork for the iron and oil paint. The color of the iron paint is a dark reddish brown, and is not at all disagreeable; it is a color not easily soiled, very durable, and is fire-proof.

MINUTENESS OF FUCHSIA SEEDS.—A gentleman recently visiting a fuchsia house (hot house) in Europe was asked to guess the amount of fuchsia seed gathered in one year from the house—10 by 30 feet in size. Twenty, ten, and even as little as one pound were suggested, but the fact proved that the entire product was only one quarter of an ounce. The *Garden* says that Mr. Cannell's specimen fuchsia-house, 30 feet by 20 feet has not yet afforded him a quarter of an ounce in one season. One may infer from these facts how fine the seed is.

PATRONS OF HUSBANDRY.

STATE GRANGE HEADQUARTERS.

I. G. GARDNER, State Agent; Executive Committee Rooms; Fruit Growers' Associations, and Farmers' Mutual Life Insurance Company, all at No. 6 Lledesdorf street. W. H. BAXTER, State Secretary, at Grangers' Bank, 415 California street, S. F.

Secretaries will be supplied with a printed list of subscribers for this paper upon sending a list of post offices within the range of their Grange. Also with blank reports, etc., for clubs.

Grange Directory.—A full list of officers of the State Grange, Deputies, names of Councils, Subordinate Granges, Masters and Secretaries will appear in this department on the first Saturday of each month.

The Patrons of Oregon and Their Representatives.

We had the pleasure of several interviews with Daniel Clark, Master of the State Grange of Oregon, while stopping a few days in this city the past week, on his way to attend the meeting of the National Grange at Charleston, South Carolina. We have given sketches of several of our representative California Patrons, and doubt not our readers would also like to know more of the man who stands at the head of the Order in Oregon: Bro. Clark is a native of Missouri, and, we should suppose, not far from fifty years of age. He was formerly Sheriff of Marion county, Oregon; was one of the first to take an active part in the organization of the Patrons of Husbandry in Oregon, was elected the first Master of the State Grange, and represented that body at the National Grange, which met at St. Louis one year ago. He was unanimously elected to the same office in September last, and left this city on Monday of this week to again represent his adopted State at the meeting of the National Grange in Charleston, and on business matters at other places.

Bro. Clark has devoted much time and personal attention to the organization and building up of the Order in various parts of Oregon, and it is no doubt largely due to his efforts that constant success has attended the Order. Oregon now numbers 243 Granges to California's 232. By the vigilance of Bro. Clark and his leading associates, the disaster consequent upon the failure of Morgan's Sons fell lightly upon the farmers of Oregon. From all we can learn the business and commercial relations of the State Grange of Oregon have been established upon a basis from which substantial results are already being realized, while the promise for the future is even still more flattering.

Sister Katie Clark accompanies her husband on his present journey. That she has a goodly share of the energy and fortitude of our representative pioneer ladies, it is only necessary to state that she goes with her youngest child—Daniel Garretson Clark—an infant of 13 months. The interest she manifests in the good of the Order, to undertake a journey of 3,000 miles, in mid-winter, presents a noble example to her Sister Patrons throughout the Union. She will be the first Matron Representative for the Pacific Coast to the National Grange. We bespeak for our brother and sister a pleasant journey and safe return.

The National Grange.

The National Grange, P. of H., meets at Charleston, S. C., on Tuesday the 3d of February. The delegates from this State are J. M. Hamilton, Master, and J. W. A. Wright, Past Master of the California State Grange, both of whom are now on their way East. These brothers also represented this State at the meeting of the National Grange at St. Louis, Missouri, a year ago. Brother Daniel Clark, of Oregon, and his wife, represent that State. It will thus be seen that the Pacific coast will be represented by four delegates. The National Grange is composed, as many of our readers are aware, of the Masters and Past Masters of the State Granges and their wives, who are Matrons, and meets annually at such places as that body sees fit to designate from year to year. Two years ago only ten States were represented; last year that number was more than doubled, and will be still further increased the present year.

The coming season will be one of much importance, not only to the Order, but to the entire industrial interests of the country. It will be the most important agricultural assemblage which was ever called together in any country, and its deliberations will be awaited with much interest by every class of the community. May its councils be guided by true wisdom to the end that its influence shall be only for good—not only to the Order in whose especial interest it meets, but for all whose hearts are true to humanity and in sympathy with the solid interests of the country at large.

OPEN THE GRANGE PROMPTLY.—Don't wait for numbers. Let those who come late be made aware that the Grange will work without them, and that they must work their way in, and you will soon have a more prompt attendance. If the meeting is opened half an hour late at one time, members will indulge the thought that it may open still later the next time.

From Brother Wright in the Regions of Snow.

EDITORS PRESS:—Snow, snow, snow, nothing but snow and sage brush, as far as the eye can reach. A fresh snow storm set in at 10 o'clock this morning, so it gets deeper and deeper, the farther we go. Last night we crossed the Sierras without difficulty. The snow on the summit is as yet only four feet deep. When we reached Truckee at 3 o'clock this morning the mercury was at zero. Yet that was less than a hundred miles from where we left the helmy, spring-like air of California—there the fields and hill sides clothed with cheering verdure, here the entire scene is

Bleak and Cold.

The ground and trees and houses clad in white, and Truckee river rolling down masses of snow and ice, and in places frozen over.

What a contrast! and how sudden the change!

If any of the readers of the RURAL fail to appreciate our California climate, and are disposed to find fault sometimes with our fogs and frosts, and chilly night air, just let their friends send them on a short pleasure trip in mid-winter across these mountains of ours, if they wish to see them return the best contented people in the world, as far as climate is concerned, and thankful that their lots have been cast to the westward of the Sierra Nevada.

Old Boreas is doing his best here at present. We are just in time to get the full benefit of his work, as they tell us most of the snow we see fell yesterday. If we don't enjoy the adventure, not to say luxury, of being snow-bound, as we got farther east, we shall be truly fortunate.

But our car is warm and fully armed and equipped with wood and

Well-Filled Lunch Baskets.

Our force consists of 17 passengers, one of those irrepressible news boys, seven train hands, including two engineers, and two "iron horses," all told. Much to our comfort, no three card monte sharps have yet developed themselves in our midst, although we are now beyond Wadsworth.

We hope these "light fingered gentry" are pretty well "froze out" on this route, for a while at least. I enjoyed an unexpected pleasure to-day in greeting an old friend that came aboard at Reno—a friend whose familiar face has for so many years been welcome to the farmers of our coast, as well as in many a home circle.

It was the RURAL PRESS of this date. While enjoying its pages, one hope was constantly uppermost in my thoughts, and with your permission, I shall here record it, as a New Year's wish for my old friend.

As broad conservatism and moderate expression have distinguished the RURAL in past years, so may they ever characterize its future utterances. None of its many good qualities have more than these endeared it to hosts of earnest friends whose political, religious and individual opinions are as divergent as the poles.

It now is, beyond question, and will long be the leading exponent on this coast of the principles and acts of our noble Grange movement.

Perhaps no three words will more fully express the great work of the Patrons of Husbandry in all its bearings, when properly understood, than

True Conservatism Crystallized.

The work is still in its formative period. As men and women should be earnest students of their lives, so we, as members of our great Order are, or should be, making its work a study. We are, or should be, in every way, striving to find the "golden mean" and then pursue it. So may the RURAL in all its words, as our leading journal, continue to be an exemplar of the conservatism we are seeking to attain.

I shall close this letter on the wing, by a brief allusion to my last Grange work, while preparing for this journey. It was the

Installations in three Granges.

Of the officers for 1875. Stockton No. 70, Jan. 2d; Borden No. 144, Jan. 9th; Vallejo No. 113, Jan. 12th.

As the Stockton Grange was the first that fell to my lot to organize, it was a special pleasure to learn from the closing report of its worthy Secretary how flourishing its condition is. They had at the close of the year 184 members. Their material is of the best. Their zeal is strong, as it has ever been. Their beautiful hall was well filled. Their lady membership is large and earnest; and, God bless them, where this is the case, the vitality and worth of any Grange is more than doubled.

They told me that harmony prevails there, and I saw every evidence of it—hence they are strong. They attempt to do nothing unless they can agree well about it. Hence what they try to do, they do.

They are preparing under the special supervision of the sisters to have a Grange library and reading room in Stockton, and they are going to have it. Brother Wolf assisted me to install, and you know he is a host within himself. Three new members were initiated in

the first degree. It was altogether a most agreeable occasion.

At Borden, we have but a small band, but I believe a faithful one. We would like these to make up for lack of numbers by zeal for our cause. Our Secretary promised to prepare and send you a list of the newly installed officers.

Until the installation of the 12th, I had never before met with our friends of Vallejo Grange. We had a delightful time. The attendance was large. We began work at 11 A. M., and conferred the second degree on two members. Then we enjoyed to the full one of those sumptuous, *impromptu* feasts which our sisters in the Grange are justly becoming so noted for preparing.

After a short rest we proceeded with our installation ceremony, which is impressive and instructive. There is a live, harmonious working Grange, and I have no hesitancy in saying it is one of the best Granges in our jurisdiction. It will always be pleasant to remember the meeting with Vallejo Grange, as my last official act before leaving for the approaching session of our National Grange.

For want of time I had to decline several invitations to install in other Granges, much to my regret.

Allow me in closing to correct an error of reference in my allusion to the substitution of 7.25 inches of rain, instead of 2.25 for Modesto, (or San Joaquin valley in general) in 1870-71. It occurs on page 105 instead of 40 in Mr. Hittell's Resources of California. On the same page the amount for the same year is given for Sacramento 8 inches, for Stockton 6, Los Angeles 7, and Santa Barbara 8. So you see Modesto compares favorably with other points for that dry year. Still snowing—6:30 P. M.

J. W. A. WRIGHT,

C. P. R. R., Jan. 16, 1875.

"An Occasion" at Yountville.

EDITORS PRESS:—The second day of our infant year dawned upon this sinful world, bright and glorious, as though no trouble or sorrow had ever invaded this mundane sphere, or aught but happiness and joy ever attended the march through life of mortals here below. I arose betimes; the ground, the trees, the bushes, fences, all—everything that was "left out in the cold," was frozen stiff during New Year's night. It was terrible cold for California; the frost appeared like a fall of snow. Upon invitation I remained over night at the home of Sister Thompson, at Napa, (wife of the Worthy Master of Napa Grange, who, by the way, was absent on a visit out of the State). I felt like getting out early, and did so, because I was to go to Yountville on the up train that morning, to attend one of these occasions—aye, one of those "funeral occasions," such as have been predicted ever since the very first day it was discovered that the organization of Patrons intended to enlighten and help the farmer out of the clutches of the merciless vampires who have fattened upon their "hearts' blood"—the millions of wealth produced by the labor of their hands. Yes, another occasion was about to transpire, and oh, how it would have delighted my soul to have had every one of our "friends," (I mean those friends who are and ever have been the "best friends the farmers ever had in California;" everybody knows who) present, as friends should always be on hand on such occasions.

Well, at the appointed hour, along come the cars, and away I go, up Napa valley to the place aforesaid, meeting, as I stepped upon the platform, Bro. Mayfield, Master of Yountville Grange, with several brothers, and Bro. Nash, of Napa Grange, who is ever on the *qui vive* when there is an "occasion," and always at his post to do, whether at home or abroad. 'Tis near mid-day, the frosts of the night before have disappeared, and the light and warmth of the second sun of 1875 is permeating and warming everything animate and inanimate on the face of the earth—even the hearts of those known as the Grangers—and as we turn to leave the depot, what do we see? Some three hundred feet or more from the depot is a two-story building, 30x60 about, nicely finished, or being finished, with flagstaff erect, from which shall float the star spangled banner whenever an occasion may require; and this is the Grangers' Hall of Yountville. Oh, ye poor, benighted, deluded creatures! Why will ye waste your substance on such trifling toys. Know ye not that the hour is at hand when none shall know ye, Grangers; and ye shall be ashamed to acknowledge that ever ye knew a Granger? Yes, I think so. Things look very much like it up at Yountville, Santa Rosa and Bennet valley, where I have been—and from what I see, and can learn from those who come from near and far, the same state of affairs exist. Well, now, it would have done your soul good to have seen what a good time we did have then at Yountville Grange that day. Public installation, fine attendance, harvest feast; everybody happy; everybody alive and wide awake, everybody means business; there "ain't" the first one of 'em dead, nor is there a dead heat or drone among them in

that hive of workers; as, for instance, every member of that Grange has taken stock in the "Grangers' Business Association of California." There's a Grange for you, Patrons of California! They not only go to work and build them a fine brick hall, but take hold of everything they should take hold of, like business men. The sisters keep up their end, too; and the Worthy Master, Bro. Mayfield, informed me that Yountville Grange is composed of material that will never say die; and I believe him, notwithstanding the amusing incident that occurred at the time.

I organized the Grange. I had been invited, and appointed the time to organize. On arriving there I saw in the village store some two or three persons, and, as the time had passed, I thought that no Grange could be organized there then; but I made myself known, as I usually do in some mysterious way, and after drumming up the forces some eight men and a complement of women were gotten together. But the trouble was to get the ninth man. A self constituted committee of one, in the person of Bro. Mayfield, who was equal to the emergency, proceeded down the main street of the "city" with lariat in hand, and lassoed the first man who passed by, and forthwith bro't him up, and we just made him ride that "huckeen billy goat" right then and there, to the satisfaction of even the National Grange. And now, what have we? A Grange among the Grangea of the land, that we may all be proud of; one that has proven herself to be, first, last, and all the time, one whose lustre is not dimmed by any luminary in the bright galaxy of Granges throughout the land; one that shall continue, and when those who administer her affairs now shall have gone to reap the reward of honest toil in the harvest field above, her children shall rise up and call her blessed—and many such we have.

One word more, and I have done: The fundamental principles of truth and justice lie at the foundation of our Order, and it must and will prevail. Our youth and inexperience is naturally attended by some mistakes—naught less than a miracle could obviate them—but will not the experience we gain by these mistakes prepare us for the greater responsibilities which are sure to result from and upon the growth of our Order? The time has passed when the croakings of our opponents, who have prophesied the total annihilation of our Order, from first to last, upon any and every occasion, shall create any fear in the minds of the most timid. And what supreme folly and weakness on the part of any to endeavor to create the impression that all is discouraging, when we have such living evidence of vitality every day of our lives. Let any who doubt visit Yountville on a similar occasion, and they will hear in their hearts, as they wend their homeward way, the feeling that it is a blessed thing to have the people of Napa valley for your friends, and you devoutly invoke God's blessing on the sisters and brothers of Yountville Grange.

Yours fraternally, W. H. BAXTER.

Election of Officers.

CACHE CREEK GRANGE, No. 82.—S. A. Howard, M.; S. B. Holton, O.; H. C. Thompson, S.; J. H. Norton, A. S.; Mrs. Gertrude Corbin, L.; N. Corbin, C.; R. B. Butler, Sec'y; D. Q. Adams, L.; E. R. Howard, G. K.; Miss M. E. Tucker, Ceres; Mrs. L. Dale, Pomona; Miss Mollie Stephens, Flora; Miss P. E. Butler, L. A. S.

LOS BANOS GRANGE, No. 79.—S. A. Smith, M.; W. W. Reynolds, O.; Harrison Price, L.; G. Shafer, S.; H. Acker, A. S.; A. McGlashen, T.; John H. Beaver, Sec'y; John Shafer, G. K.; Mrs. John Shafer, Ceres; Mrs. John H. Beaver, Flora. Chaplain, Pomona and Lady Assistant Steward were absent.

PILOT HILL GRANGE, No. 1, P. of H.—John Bishop, M.; I. E. Terry, O.; Mrs. M. F. Stoddard, L.; John W. Davis, S.; P. D. Brown, A. S.; Silas Hayes, C.; Hiram Stoddard, L.; A. J. Bayley, Sec'y; A. J. Wilton, G. K.; Mrs. Lizzie Wardwell, Ceres; Mrs. S. G. Orr, Pomona; Miss Sadie Stegeman, Flora; Mrs. Adelia J. Terry, L. A. S.

NEW CASTLE GRANGE.—J. C. Boggs, M.; J. H. Mitchell, O.; Wm. H. Puffer, L.; T. F. Tabor, S.; L. E. Plantz, A. S.; Mr. J. A. Griffith, C.; Wm. Smith, T.; B. P. Tabor, Sec'y; G. Perkins, G. K.; Mrs. L. C. Boggs, Ceres; Mrs. H. R. Perkins, Pomona; Mrs. G. A. Mitchell, Flora; Miss Isabella A. Boggs, L. A. S.

SNELLING AND HOPETON GRANGES CONSOLIDATED.—Erastus Kelsey, M.; John Ruddle, O.; J. M. Strong, L.; Peter Fee, S.; S. W. Holter, A. S.; L. E. Smyres, C.; J. C. Grimes, T.; F. Larkin, Sec'y; G. W. Thomson, G. K.; Mrs. M. E. Geiser, Ceres; Mrs. M. Kelsey, Pomona; Miss Laura Hockeid, Flora; Mrs. Maria Hohler, L. A. S.

LOS ANGELES GRANGE.—Thos. A. Garey, M.; J. Q. A. Stanley, O.; J. S. Thompson, L.; N. S. Montagne, S.; A. T. Garey, A. S.; J. M. Stewart, C.; C. H. Hass, T.; S. A. Waldron, Sec'y; M. M. Dalton, G. K.; Mrs. J. Q. A. Stanley, Ceres; Miss Bell Lewis, Pomona; Miss E. A. Graves, Flora; Mrs. S. S. Hass, L. A. S.

AMERICAN RIVER GRANGE, No. 172.—J. A. Evans, M.; D. W. Taylor, O.; W. Kane, L.; M. Smith, S.; W. Kilgore, A. S.; J. W. Kilgore, C.; Wm. Deterding, T.; E. G. Morton, Sec'y; J. Stout, G. K.; K. Morion, Ceres; Mrs. A. White, Pomona; Miss Addie Morton, Flora; Miss Alice Criswell, L. A. S.

From the Granges.

La Honda Grange—Installation of Officers.

On the occasion of the installation of the officers of La Honda Grange, January 2nd, Sister Julia E. Woodhams, delivered a very able address, from which we make the following extracts, regretting that our space will not permit its publication entire:

Patrons, our Grange numbers but few members; it is in the mountains, where we have always been taught that ignorance and superstition went hand in hand, with lawlessness and inefficiency. Shall this be true of us? Or shall we rise in our might and prove to the world, that, although our Grange is in the mountains, we will go on from good to better, until we help conquer the prejudices existing against our Order. If not willing to do this, we had better quit calling ourselves Grangers, and leave the honorable name to others. I know we can do this if we try; all the doubting Thomases to the contrary, notwithstanding. Nor need we be ashamed of our mountain home; for the mountains have been a refuge for the oppressed and persecuted of all ages.

It is a mistaken notion that man alone is to labor for the common good of the family. I have found no place in the bible where woman is exempt from the curse of labor; but we are told that "a virtuous woman riseth while it is yet night and giveth meat to her household, and a portion to her maidens. She layeth her hands to the spindle, and her hands take hold of the distaff. She openeth her mouth with wisdom; and in her tongue is the law of kindness. She looketh well to the ways of her household; and eateth not the bread of idleness." The reward or promise given to such a woman is that "her children arise up and call her blessed; her husband also praiseth her." Is not this more than gold or silver, or to be known by the world?

To those who think farmers' wives are to be pitted, I would say, "Give her of the fruit of her hands, and let her works praise her in the gates." This the Grange has done. Then do you wonder that women are willing to work for its principles. Some of you have labored for other's emancipation, now labor for your own. Let us be vigilant to eradicate the evils which have surrounded us, from the time when the first man and woman was turned out of their earthly paradise to become tillers of the soil.

We have the promise that the seed of woman should crush the serpent's head. There are serpents in our day more potent for evil than the one that enticed the garden of Eden. Then claim the promise and crush oppression out of our land.

Enterprise Grange.

EDITORS PRESS:—I think that perhaps some of your many readers might like to hear from this locality, I take the liberty to send you a few items. Our Grange is prospering finely, we had a harvest feast January 1st, when a class of ten was taken in as fourth degree members. We now number 88, with a fair percentage of good working members, and are about ready to move on the enemy's works, as we have nearly all within our boundary lines already in the field. The day was fine and we were honored with the presence of many visitors from sister Granges; and, to express myself in as few words as possible, "I will say we had a glorious time. Nearly every available foot of land in this section of country is sown and if we have a favorable season from this on we expect a bountiful harvest. ALBERT ROOT, Brighton, January 14, 1875.

Antioch Grange.

EDS. PRESS:—Your paper has been coming to me for one year, and I have no fault to find with it. It is just what it claims to be. I have also been taking the Granger, and it has been worth all it cost me and more. I wish Bro. Henning success with all my heart, and am glad you have united your papers, and hope it may prove well for all parties. Our Grange is getting along very well. Farmers have been looking discouraged for some time in consequence of the long, dry spell; but yesterday it clouded and last night and to-day we have had light rains. We hope it will rain till their faces get back to their proper length again. We are in a dry county, but if it rains enough to make crops this year, we will have the largest crop that has ever been grown around Antioch, for there has been more good farming done this year than ever before for the last six years. Wishing you all the success, and hoping I will not fail to get every copy of your paper. JAMES D. DABY.

Antioch, Jan. 14, 1875.

Ukiah Grange.

Ukiah Grange, No. 114, P. of H., had its officers for the ensuing year installed Saturday, the 2d inst. Past Master, W. D. White, acted as installing officer. Quite a number of invited guests were present. After the ceremony, all partook of a bountiful repast, furnished by the lady Patrons. Worthy Master Lucas, returning home in the evening from the above installation, found his barn, containing his winter supply of hay and grain, burned to the ground. He is unable to account for the origin of the fire. If you find the above items of interest they are at your service. Yours fraternally, GEO. W. MCCOWEN, Ukiah.

Los Banos Grange.

EDITORS PRESS.—Our Grange is in fine working order, at present, although we have lost some of our members, that have withdrawn to join Granges nearer their homes. Those that

remain are earnest and diligent laborers. We are determined not to have our Grange classed among the list of "dead" Granges. We do not expect to reap the benefits immediately, that await us in the future. The farmers in this vicinity are becoming very disheartened, owing to the long spell of dry weather. The grain that is growing, (that portion which has been sown), looks very well so far, although if we do not have rain in a short time there will be a poor show for crops in this vicinity.

JOHN H. BEAVER, Sec'y.

Temescal Grange—Interesting Meeting.

In spite of the inclemency of the weather there was a fair representation of Temescal Grangers at their regular meeting on Saturday. An informal discussion was held on various subjects of interest to farmers, more especially tree planting and the destruction of squirrels. Worthy Master Webster called out the opinions of the members on the subject of alfalfa sowing; the best time; preparation of ground; amount of seed to the acre, etc. Several members would not plant the locust because of the sprouts, they are as difficult to get rid of as the wild morning glory. Brother Bagge would give much to know if any one had ever succeeded in getting rid of the latter pest. He once hired a man to follow up a root, the head of which had already been repeatedly attacked. They drifted in all directions after sinking the first shaft and made various cross-cuts, but the root kept ahead of them growing larger and stouter all the while; at last they gave up in despair. The morning glory seed is in nearly all the alfalfa offered for sale, but did not injure the hay. But it was one of the worst plagues in corn and other fields requiring clean cultivation. Brother John Kelsey reported a sure thing, he thought, on squirrels. A Contra Costa friend had come to his nursery for eucalyptus trees, and he felt in duty bound to tell him that squirrels were almost fatal to the hopes of eucalyptus planters. The gentleman replied he was not afraid of squirrels, his wife had a remedy against their depredations, and Brother Kelsey had given the recipe a most satisfactory trial. It is this:

To half a pint of molasses or syrup; add from half to a teacup of water. Put in an iron kettle and let it come to a boil. While boiling add two and a half sticks of phosphorus (it will not take fire) stir thoroughly until it is perfectly mixed. Then stir in four quarts of wheat, and stir enough to have the whole mass of wheat well poisoned and glazed. Brother Kelsey had found only two squirrels on his place after the second trial. He thinks the preparation equally destructive to gophers.

The Lecturer read from a very interesting address given by Professor A. L. Perry, of Williams College, before the last Nebraska State Fair, the following excellent summary:

1. Farmers are really most everybody, but have been, heretofore, politically, nobody, and have now wisely made up their minds to become somebody.
2. Nature is a friend to the tillers of the soil.
3. Farmers will do well to have one, two, three or more crops to sell subsidiary to their main crop.
4. The best legislation for farmers is to "let alone," but actual legislation is almost always against them.
5. When dollars begin to dance up and down in value, farmers begin to dance to a doleful tune.
6. Greenback-grasshoppers are worse than any other kind of grasshoppers for the farmers.
7. Protection is to industry what a choking collar is to a man, it stops healthful circulation in both ways.
8. Permanent parties, and especially the parties with the principles dropped out of them, are of doubtful utility. Farmers are the best men to abolish them.
9. Vote only for good men, who believe substantially as you do, without the slightest reference to worn out names and shibboleths.
10. Keep the eyes open, look into the nature of things; "watch and pray," and hate a debt as you do the devil.

Oristimba Grange.

EDITORS PRESS:—We are suffering on the west side of the San Joaquin with our yearly complaint—lack of rain fall. It has been nearly a month since we have had a sprinkle and if it does not come soon we will witness another '71. We were at that time firm in the belief that ere this we would have a canal through this valley, but we have not. On the 23d of the present month we will hold open Grange, inviting all who have a plan or prospect for getting the canal through to come forward and exhibit and explain their various plans. The farmers and land owners are now thoroughly in earnest to assist as far as they can, in any feasible scheme to supply this valley with water independent of rain.

The officers of Oristimba Grange were installed to-day for the ensuing year, by Brother Crittenden of Cottonwood Grange. There was a large attendance and judging from the tone of the remarks made neither the Cottonwood or Oristimba Granges are losing interest in the Order, but are becoming more firm believers.

E. H. ROBINSON, Sec'y.

Roseville Grange.

EDITORS PRESS:—It is with regret that I announce to you the resignation of H. F. Davis as Worthy Master of this Grange. The office was declared vacant and A. D. Neher was re-elected to serve for the ensuing year. H. F. Davis resigned on account of ill health.

J. D. GOULD, Sec'y.

New Castle Grange.

EDS. PRESS:—You have no doubt before this received notice of the organization of a flourishing Grange in this place. We begin with twenty-eight members. You may expect good work from us. I add a list of officers elected January 9th, 1875. B. P. TAYLOR, Sec'y.

New Castle, Jan. 16, 1875.

Owing to a press of matter, the following items were unavoidably omitted last week:

Lower Lake Grange.

EDITORS PRESS:—Below is a list of officers of Lower Lake Grange, No. 77, as furnished by our Secretary and published in your valuable paper of the 7th of November last, which we suppose will appear in the next monthly directory. Our Grange is prospering nicely. A large number of the members manifesting a deep interest in its welfare. The social features of our Order are necessarily neglected to some extent in consequence of having "degree work" at every meeting since our organization. We are contemplating holding monthly meetings in the future, to be devoted exclusively to the discussion of topics strictly connected with the best interests of our noble Order. The dry weather of the past few weeks is being used to advantage by the farmers of this locality, much low land being cultivated this season for the first time. The eighty-one pound beet on exhibition at Lower Lake, was raised by Bro. C. O. Greene, my nearest neighbor. Sister Wilson, our very efficient Secretary, is engaged getting up a club for the RURAL; you will hear from her soon. J. W. HOWARD.

Lower Lake, Lake county, Jan. 8, 1875.

[The notice of election of officers will be found in its appropriate place. The above is just such a message as we like to receive "From the Granges," evincing a sufficiency of zeal for the Order, giving assurance of the healthy condition of the Grange from whence it comes; conveying a little local and agricultural information, and being entirely free from the gossipy, critical element which, we are sorry to say, is perceptible in some of these messages.—EDS. PRESS.]

Sacramento Grange.

EDITORS PRESS:—After a lapse of some months of silence on my part, and as the year is drawing to a close, I will state something in behalf of the above Grange. In taking a retrospective glance over its field of usefulness, I can see signs of steady progress issuing out of its workings, auspices of brighter events at the opening of the new year. Our membership is gradually increasing and embracing many heads of families that encourage the growth and welfare—not only of the Order—but culture of the soil and interest for their brother farmers of the valley. The social relation is a pleasing feature of the Order, and is generally so regarded. Situated at the capital and center of the State, it should stand foremost in the State. Our meetings are regular every second and fourth Saturday of the month, and sometimes an extra session is held. As many reside from one to 15 miles away, they have time to do their shopping and attend to the Grange the same day. Finding our time has mostly been employed in initiating members which leaves but little time in consideration of matters of importance for the Grange. A resolution was passed lately that we devote all regular meetings to the interest of the Order, and have special meetings for initiating, and I think the Order will be benefited thereby. It is expected that at the first regular meeting of January, the new officers will be installed for 1875. We will commence the first extra meetings Jan. 2d, with a new class and take up members as they have passed in order, hoping the new year as it opens may awaken new life and spirit in us all, and enable us to accomplish whatever we undertake. G. R.

Sacramento, Dec. 28th, 1874.

Installation at Haywards.

Although last Saturday was cold and foggy, we had a pleasant installation of officers of Eden Grange. We found new faces among the earnest and hopeful members, making progress since a previous visit. Let Eden Grange do its best, and it must stand as one of the strongholds of the Order. The sisters of this Grange deserve praise for their active efforts. After adjournment, a little harvest feast was set in the hall as if by magic, no collation having been anticipated save by three or four ladies who seem to have a way of their own in performing good deeds. It was a hit that adds a bright spot in the pleasure field of the Grange.

Petaluma Grange.

Past Master Walker informs us that things went merry as usual at their installation last Saturday. A good feature of this Grange is the accommodation it has for the members during the day of their visit to town, ere the Grange is opened. The rooms are used for reading, consulting and visiting among members and their friends.

Centerville.

Worthy Master Hellar, of Eden Grange, as Deputy of Alameda county, installed the officers of Centerville Grange, Jan. 2d, after which he says they had a good time generally.

Sunol, Alameda Co.

The officers of this Grange are to be installed by Deputy Hellar, Saturday, Jan. 16.

Gilroy.

The installation of officers of this Grange is to take place on Saturday of next week.

General News Items.

A SOCIAL SCIENCE ASSOCIATION FOR CALIFORNIA.—A meeting was held on Saturday last at the Chamber of Commerce, with the object of initiating steps to found a Social Science Association for California. There were present President Gilman of the State University, Rev. H. Stebbins, Dr. G. A. Shurtleff, W. W. Crane, Rev. A. Williams, C. T. Hopkins, Rev. J. Eels, Rev. O. Gibson, Dr. Gibbons and J. T. Doyle. A committee was appointed to prepare a constitution. The objects of a similar movement in Oakland are thus defined: "To investigate questions of social science, and collect and publish mature views regarding such subject with reference to a determination of the true and safe principles which underlie the industrial, economical and administrative interests of the commonwealth." These are arranged under the following sections: 1. Production and commerce. 2. Jurisprudence and legislation. 3. Crime and its treatment. 4. Education and health. 5. Municipal administration.

FEARFUL SCENE ON THE SOAFAFOLD.—Two negroes were hanged at Hemstead, Long Island, on Friday of last week, whose names were Jackson and Jarvis. The former died with but few struggles, but the rope by which Jarvis was suspended broke, and when another was procured and a second attempt made to hang him, the noose slipped out of the latching and the poor wretch still stood. He was understood to say, piteously, "For God's sake, gentleman, make sure work of it this time." He was then literally pulled up by hand and slowly strangled to death.

CHARLEY ROSS.—The detectives searching for Charley Ross have expended more than \$20,000. Commissioners have searched from ocean to ocean and across 700,000 circulars have been issued, printing and photographing have cost \$8,000; a corps of clerks have been employed in the correspondence about the boy; 200 bands of gypsies have been searched, one stray boy has been found and taken home to his mourning parents; Charley Rosses have been reported, almost without number; and at least 500,000 persons at one time or another have been on the search. And yet no Charley Ross.

POSTAL CHANGES ON THE PACIFIC COAST.—The following Postal changes have been ordered for the Pacific coast: Names changed—Garrote, Tuolumne county, California; to Grove-land. Postmasters appointed—Marks Mendelson, at Capistrano, Los Angeles county, California; Gideon E. Thurmond, at Carpentaria, Santa Barbara county, California; Allen H. Bartlett, at Knight's Ferry, Stanislaus county, California; H. C. Pratt, at Soledad, Monterey county, California; Guy Haynes, at Walker's Prairie, Stevens county, W. T.

A BRITISH CREW MASSACRED.—The telegraph on Tuesday reported from New Zealand, via London, that the cutter "Lapwing" was recently attacked by the natives of Santa Cruz island, the crew overpowered and massacred, and the vessel burned. The savages afterward attacked the British war-ship "Sand Fly," but were driven off.

ONE OF THE LICK MONUMENTS.—A design for a monument to the father and five relatives of James Lick, mentioned in his bequests, has been made by Dr. Horatio Stone. The figures are mounted on a pedestal seventeen feet high, and surmounting the monument is a bronze statue of William Lick as a revolutionary hero.

KING KALAKAUA and suite arrived at St. Louis, on Monday evening, and were met by the city officials and General Sherman and a few members of his staff. His Majesty was escorted to the Southern hotel, where he was welcomed by the Mayor.

HUMAN SKELETONS.—A bed of human skeletons, twenty-five in number, was recently discovered between King's river and Kane slough, Tulare county. The discovery created quite an excitement; but, as yet, no definite conclusion has been arrived at.

THE "Alaska," which was recently driven ashore near Hong Kong, has been hauled off. She sailed for this port January 15th. The officers and crew of the "Japan," lately burned, will probably return on the "Alaska."

VESSEL ON FIRE IN THE BAY.—A fire broke out on Saturday last in the hold of a British ship which had just arrived in this harbor, loaded with coal. She was towed to the flats and sunk in shoal water.

A ST. CROIX girl, in a recent fit of anger, because she could not get her foot into a small shoe, seized a carving-knife and cut off her little toe.

CATS AND TRICHINA.—A large number of cats in the vicinity of Richmond, Va., have recently died from what is supposed to be trichina.

STEAMER WRECKED.—The steamship "Alice," from Cardiff for Constantinople, was recently lost at sea, with twenty persons.

THE trial of Muybridge for the murder of Larkyns will commence at Napa on the first Monday of February.

KING ALFONSO, of Spain, is to take the field in person against the Carlists. He is a boy of 17 years.

THE cost of the expeditions for observing the transit of Venus is estimated at \$1,500,000.

WHITE deer are common in Oregon.



Ripe Wheat.

Some few years since a lady friend of Eliza O. Crosby, in speaking of the death of a mutual acquaintance, somewhat advanced in years, whose funeral she had recently attended, said: "Among the white flowers in her coffin was a bunch of ripe wheat, and I thought it most beautiful and appropriate." The next day Miss Crosby penned the following lines and sent them to *Moore's Rural New-Yorker*, where they were originally published:

We bent to-day o'er a coffin form,
And our tears fell softly down;
We looked our last on the aged face,
With its look of peace, its patient grace,
And hair like a silver crown.

We touched our own to the clay-cold hands,
From life's long labor at rest;
And among the blossoms white and sweet,
We noted a bunch of golden wheat,
Clasped close to the silent breast.

The blossoms whispered of fadeless bloom,
Of a land where fall no tears;
The ripe wheat told of toil and care,
The patient waiting, the trusting prayer,
The garnered good of the years.

We knew not what work her hands had found,
What rugged places her feet;
What cross was hers, what blackness of night;
We saw but the peace, the blossoms white,
And the bunch of ripened wheat.

As each goes up from the field of earth,
Bearing the treasures of life,
God looks for some gathered grain of good,
From the ripe harvest that shining stood,
But waiting the reaper's knife.

Then labor well, that in death you go
Not only with blossoms sweet—
Not bent with doubt, and burdened with fears,
And dead, dry husks of the wasted years—
But laden with golden wheat.

Rural Winter Evenings—Past and Present.

[Written for the Press by JOHN TAYLOR.]

Musing to-night on the many inroads made by the march of time, on the way the winter evenings are disposed of, I found memory bridging a chasm of fifty years, and once more was a silent witness to the buzz of the spinning wheel and cranky jerkings of the fabled reel. How the fingers move with lightning speed as they run up and down the thread as it is fashioned from the lead of "tow," and then sent to the reel, to be again utilized by happy, patient fingers, in the warm stockings for family use. The spinning wheel was a nucleus around which the old and young maids and matrons congregated, and if nothing was being spoken worthy of note, it was a something to look at, the operator, being the observed of all observers. Many a long winter's night the spinning wheel was the only music heard in thousands of happy homes of the long ago. Many a love match has lighted under the inspiring influences of the reel, and also lessons of thrift learned by its domestic use. I love to gaze through the haze of years, and weave the old web anew. In the mind's eye the long lost loved ones are marshalled in gray colors, and living to perform scenic scenes in life, as if the curtain had only been newly dropped, and raised again for the second act, in the great drama of life—illusions, one would say. Can it be possible for the ghost of long ago to appear phantom like; and perform anew scenes long ago buried in the tomb of the past. Ah, but it is real to the inner man! I see the eye sparkle, fingers move the wheel, as a thing of life; and hear again the tones of the loved ones, in friendly repartee, and mingling voices in the melody of good "Old Hundred." The memory of the past is one of God's grandest gifts to man. By this power he is enabled to weave the web of life, never losing the thread. We come away down the ages, spinning a life's record to record a different mode of spending the long winter's evenings socially, intellectually and industrially. The spinning wheel and reel has given place to the sewing machine and piano. It is really a marvel still, to those used to the slow coaches of the past. To witness the fineness of touch and rapidity which seem after seam is united, the young lady, too, with her modern mode of dress and cultivated, airy appearance, seems at home with her silver mounted machine, as we take in the all ensemble. We thank God for the improvements, and improved condition of rural life. Compared with the long ago, it is only a slight effort to leave the sewing machine and appear before the piano. Perfect with the first perfection is nearly reached with the latter. Few well tried rural homes but what have their musical instruments. Music is a civilizer, and few homes should be without it. The sewing machine and piano, or parlor organ, is just as necessary to a well regulated household as a bible and choir in a church. Perhaps in the great future when the now young, will be old and gray, innovations in social and industrial life will be as distinct as the present from the past. From past experience we may anticipate great im-

provements in various outward and domestic arrangements. Young ladies will then propel their sewing machines by steam from invisible sources. Music will steal upon the senses sweet as Eolian whisperings, without knowing from whence or where. And the sleep called death will be a translation. The music of the spheres commencing as the music of earth dies away. And the faces which haunt the memory from the long ago will be a pleasant reality. We would not wish to prolong his or her life, to enjoy the scenes of the peaceful, progressive future, a future which will take us beyond our present in proportion as the present takes us beyond the spinning wheel and reel of the past.

Youth's Pleasures.

[Written for the Press.]

A love of the beautiful, of flowers, music, the songs of birds, and all the enchantments of nature is a pleasure that peculiarly belongs to the years of youth, though many preserve it even as they journey down the sunset slope of life. With the true heart I think it never dies though the rapturous thrill at the sound of sweet music or the sight of a fine sunset may be suppressed, toned down by the cares and sorrows of accumulating years, just as the dust of earth dims the luster of fine gold. Fame is a dream that lingers around the footsteps of youth and often leads him into forbidden ways. Wealth too is the goal of many a youthful heart's ambition, fame and wealth are supposed to bring happiness, which latter after all is the grand end for which we all strive. With the advance of years the intensity of these dreams and passions and the anticipated pleasures of their attainment slowly fade out by repeated disappointments and are often replaced by nobler thoughts and better ambitions.

But is there not something of regret mingled with the thought of growing old?

To sometimes list to the muffled sound
Of the waves that die on the hanner coast,
And see the spot where our hopes went down
With the beautiful things we loved and lost!

We look on the backward track and see it strewn with our idols, our idols that we have cast away, one by one, or that fate has wrenched from us. Here a splendid dream, never realized, there the memory of a lost hope; again a fortune that vanished in our very grasp, broken friendships, lost love and all the sorrowful train that make up life's miseries. We are going down to old age, shorn of most of the beautiful endowments that once crowned existence with roses. But happy are those who possess a hope that grows greener with age. If the light of faith burns in our hearts we will see by its radiance the "gates ajar" of the Royal City, whose maker and builder is God, within whose walls there is no disappointment and no blighted dreams.

After all else has perished and we are crowned with gray hairs and we wander slowly toward the narrow sea that separates time from eternity, with the phantoms of past pleasures sinking back in the shadows of long forgotten years, the words of "Him who spoke as never man spoke" brings a light and a comfort to the world-worn and weary heart. So brings a consolation and a sweet peace that all the restless dreams of earlier years could not give. At last we have found the true ambition. To live so that we shall be worthy of an entrance into that higher and better existence, eternal life.

POMONA.

THE EFFECT OF IMAGINATION.—The Hampshire Gazette tells a good story of a good deacon of Northampton, well illustrating the power of the imagination over the mind. Said deacon boards at a hotel, and being near-sighted, wears spectacles. One morning he got up as usual, put on his spectacles, but to his surprise could not see through them. Thinking that the dimness of vision was temporary, he went to his business, but his powers of seeing did not increase, and in alarm he consulted the family physician, who assured him he was perfectly well. But the deacon knew he was sick, went home, and, with the aid of his wife, made elaborate preparations to take a sweat. At this juncture a lady who occupied an adjoining room came in to look for her spectacles which she had left there the night before, and claimed the pair the deacon had been wearing all the morning. As these spectacles were intended for a long-sighted person, whereas the deacon was short-sighted, the difficulty was explained at once, and the deacon did not take his sweat.

TWO KINDS OF GIRLS.—There are two kinds of girls. One is the kind that appears best abroad—the girls that are good for parties, rides, visits, balls, etc., whose chief delight is in all such thing. The other is the kind that appears best at home—the girls that are useful and cheerful in the dining-room, the sick-room, and all the precincts of home. They differ widely in character. One is frequently a torment at home; the other is a blessing. One is a moth, consuming everything about her; the other is a sunbeam, inspiring life and gladness all along the pathway. Now it does not necessarily follow that there shall be two classes of girls. The right modification would modify them both a little, and unite their characters in one.

We have but one moment at once, let us improve it. Our moment will soon come when this life will cease—may we so live as to meet it without regret.

Keeping Up Appearances.

The Interior, in an article on the "Art of Living," has some earnest words on a topic which it is to be feared, is not altogether inappropriate to California. It says: Extravagance is the rock on which society is going to pieces. Let us face the danger before it is too late to avert it. Single people shrink from marriage because they see married people living in a perpetual whirl of bills and competition and social hypocrisy. An air of common deception hangs around all of our houses. We are afraid to be poor. On one thousand a year how shall we keep up the appearance of three thousand. That is the standing social problem. In such a case luxury in the parlor necessitates meanness somewhere else. Our lace curtains tell fearful lies. Let us have a reform and come down to a specie basis. The well-to-do people ornament their houses with mortgages; the poor run bills; high pressure marks all life from the cottage to the mansion, and in three directions is ruinous.

First—It is financial ruin. Any man who puts a dollar into appearance is on the way to sink a fortune. Living costs about twice what it ought—fully twice in California what it does in Europe. There is no reason for it. This is a land of grain and fruits and abundant work. The man who spends two thousand a year could live on one and be happier. Perhaps not, indeed, by himself. The social level needs to sink from extravagance to thrifty economy. If this is the way out of national trouble it is doubly the way out of family worries. Be brave, honest, straight through your domestic arrangements, though the two-story must yield to the cottage, and the pudding to corn meal.

Second—It is mental ruin. The money that is spent on horses and dress, and table unnecessary, would fill all our homes with books. The expensive furniture would be well replaced by pictures to be a constant refining and enlightening influence. The money it costs many a family of moderate means to keep up four week's appearance at the sea shore would fill their home with treasures of knowledge and art. Instead of that, the glorious month at Long Branch is followed by eleven months of scrimping in the kitchen and general meanness all around.

Third—It is moral ruin. People cannot systematically deceive without the lines are velvet and silky. The penalty comes in the loss of self respect. The man who mortgages his property to keep up the family style thereby mortgages his name to the devil. Instead of studying moral philosophy to find the cause of general social disorder, loosening of home bonds and losing of purity, let it come down to an honest way of living. Let it make our carpets and our table and our cloths tell the truth, and then, perhaps, our children will. A blight will surely fall on all our social life unless we recover ourselves from that great American vice, trucking, and live honestly before men. The seeds of hypocrisy are in the heart of every child that goes out from a household whose whole life is a sham. In vain we preach honesty and sincerity from the pulpit so long as the life from the pulpit to the home management is all a pretense. Society must come down, and dare to appear what it is.

OUR TELL-TALE LIPS.—I have observed that lips become more or less contracted in the course of years, in proportion as they are accustomed to express good-humor and generosity, for peevishness and a contracted mind. Remark the effect which a moment of ill-temper or grudgingness has upon the lips, and judge what may be expected for an habitual series of such movements. Remark the reverse and make a similar judgment. The mouth is the frankest part of the face; it can't in the least conceal its sensations. We can neither hide ill-temper with it, or good; we may affect what we please, but affectation will not help us. In a wrong cause it will only make our observers resent the endeavor to impose upon them. The mouth is the seat of one class of emotions, as the eyes are of another; or, rather, it expresses the same emotions, but in greater detail, and with a more irrepressible tendency to be in motion. It is the region of smiles and dimples, and of a trembling tenderness; of a sharp sorrow, or a full-breathing joy, of candor, of reserve, of anxious care, or liberal sympathy. The mouth, out of its many sensibilities, may be fancied throwing up one great expression into the eye—as many lights in a city reflect a broad luster in the heavens.—Phrenological Journal.

TO BE MARRIED.—It is rumored that the object of James Gordon Bennett in going abroad is to marry a young lady in Paris to whom he has been some time engaged. She is a Roman Catholic of Irish parentage, having been but two years out of a French convent where she was sent to be educated. Bennett is expected to bring his bride home early next spring.

LOVE FOR THE OLD HOMESTEAD.—A friend who was with Mr. Sumner at his house in Boston when he sold it says that after signing the deed he thoughtfully remarked: "In this house I spent my boyhood and I part with it with a heart full of sorrow, and with eyes full of tears. There are none who can ever love us with a mother's love. No, not one."

SICKLY.—A correspondent of an American paper describes the Ohio as a "sickly stream," the editor appended the remark, "That's so—it is confined to its bed."

Wanted by the Nation—A Book on the Trees of America.

We would have Congress appropriate a sum of money—say from three to five hundred thousand dollars—to be expended under the direction of trustworthy commissioners, for the production of a great national work, embracing a carefully prepared description, with illustrations, of all the varieties of trees in the United States and Territories. The very best talent, literary and artistic, should be employed to produce the work. It should be properly divided and the trees classified into hard woods, soft woods, evergreens, trees of commerce, etc. Thus the pines, cedars, hemlocks, firs, spruces, oaks, walnuts, hickories, maples, beeches, ashes, elms, and the many other trees of use and ornament, would be set forth in detail; and also, the fruit-trees, etc., with their habits, localities, values, and particular instructions be given with reference to their cultivation.

Audubon, almost single-handed—or without government aid—produced his great and beautiful work, "The Birds of America" copies of which now sell for a thousand dollars. Are not the trees of America as beautiful and as useful as the birds?

A full-page illustration, drawn from life, should be appropriated to each of the principal varieties. These pictures should be drawn, or photographed, then painted, and then chromed in the highest style of the art. Facing the tree, on the opposite page, should be engraved views of the leaf, flower, nut, or fruit of the tree, with a section showing the grain and color of the wood, bark, etc. Then full descriptive letter-press should follow, so that the reader could learn all that is known of practical use of each variety of tree; Such chromo-lithographs as we propose would sell readily, if gotten up by private effort, at five dollars or more, and would find favor with all lovers of art.

The book should be issued in numbers, at ten dollars or more each number, and could be completed in ten or fifteen numbers, making the book cost the purchaser from \$100 to \$150. It is believed every gentleman of means who is a patron of art and of literature would subscribe for the work.

Merchants would place the beautiful book on their drawing-room tables, and its perusal would beget a love for trees in the minds of all beholders. In this way persons of taste and of means would acquire a knowledge of trees, their habits and their value, not otherwise attainable; and, as a result, suburban residences would soon be stocked with the choicest varieties, and highly beautified by magnificent trees.—Phrenological Journal.

SECURITY FOR INTEGRITY.—Several years ago a company was in operation in New York, having for its object the giving of bonds to secure employers against neglect or fraud on the part of their employes. We have lost sight of the organization, and doubt whether it is still in existence. But the field is one that might be filled with advantage. The system pursued in England is to admit employes to membership upon furnishing proper testimonials and paying a certain sum at stated periods into the company. This company then gives a bond to the railway, bank, or other corporation which engages its member. The insurance company makes a profit by the receipt of its annual premiums, the clerk or other employe is spared the necessity of soliciting favors from his personal friends, and the corporation which receives the bond knows that the surety is good. There is no reason why a mutual company consisting entirely of employes should not be started on this basis.

A SAD STORY OF NEGLECT.—The question is often asked, "In what manner do boys become hoodlums?" and it is as often answered, "By neglect of proper parental care and control." Yesterday afternoon a little boy, eleven years of age, and poorly clad, accosted a policeman on the street and begged of him to provide him with a shelter for the night, as his mother was drunk and had turned him out of doors. The officer took the little fellow to the city prison, where he revealed a sad state of affairs. He had been at work for several weeks in a type foundry, and every cent of his scanty earnings was spent by his mother for whiskey. His father died several years ago, and the little fellow feels alone in the world. The officer was dispatched to the home, which had ceased to be a home for the wife, and he found the boy's mother in a beastly state of intoxication, lying on the floor of a miserable hovel.

YOUNG AMERICA.—A lady and her 8-year old daughter were among the passengers on a car yesterday, and presently the little miss observed a man take out his handkerchief, flourish it around, and then wipe his nose. The child leaned over to her mother and whispered: "Mamma, that gentleman is trying to flirt with me, but I shall give him the handkerchief-signal that I distrust his motives."

REV. CHARLES BROOKS was asked, "What is the shortest sketch of human life?" He answered thus:

"At ten, a child; at twenty, wild;
At thirty, strong if ever;
At forty, rich; at fifty, wise;
At sixty, good, or never."

EVERY process in nature is the going forth of the Everlasting on his messages of love, and any event in our experience is a message of love fulfilled.

Don't Kiss the Baby.

The promiscuous kissing of children is a pestilent practice. We use the word advisedly, and it is mild for the occasion. Murderous would be the proper word, did the kissers know the mischief they do. Yes, madam, *murderous*; and we are speaking to you. Do you remember calling on your dear friend Mrs. Brown the other day, with a strip of flannel around your neck? And when little Flora came dancing into the room, didn't you pounce upon her demonstratively, call her a precious little pet, and kiss her? Then you serenely proceeded to describe the dreadful sore throat that kept you from prayer meeting the night before. You had no designs on the dear child's life, we know; nevertheless you killed her! Killed her as surely as if you had fed her with strychnine or arsenic. Your carasses were fatal.

Two or three days after, the little pet began to complain of a sore throat too. The symptoms grew rapidly alarming; and when the doctor came, the single word *diphtheria* sufficed to explain them all. To-day a little mound in Greenwood is the sole memento of your visit.

Of course the mother does not suspect, and would not dare to suspect, you of any instrumentality in her bereavement. She charges it to a mysterious Providence. The doctor says nothing to disturb the delusion; that would be impolitic, if not cruel; but to an outsider he is free to say that the child's death was due directly to your infernal stupidity. Those are precisely his words; more forcible than elegant, it is true; but who shall say, under the circumstances, that they are not justifiable? Remember.

"Evil is wrought by want of thought
As well as by want of heart."

It would be hard to tell how much of the prevalent sickness and mortality from diphtheria is due to such want of thought. As a rule, adults have the disease in so mild a form that they mistake it for a simple cold; and as a cold is not contagious, they think nothing of exposing others to their breath or to the greater danger of labial contact. Taking into consideration the well established fact that diphtheria is usually if not always communicated by the direct transplanting of the malignant vegetation which causes the disease, the fact that there can be no more certain means of bringing the contagion to its favorite soil than the act of kissing, and the further fact that the custom of kissing children on all occasions is all but universal, it is not surprising that, when the disease is once imported into a community, it is very likely to become epidemic.

It would be hard to charge the spread of diphtheria entirely to the practice of child-kissing. There are other modes of propagation, though it is hard to conceive of any more directly suited to the spread of the infection or more general in its operation. It stands to diphtheria about the same relation that promiscuous hand-shaking formerly did to the itch.

It were better to avoid the practice. The children will not suffer if they go unknissed; and their friends ought for their sake to forgo the luxury for a season. A single kiss has been known to infect a family; and the most careful may be in condition to communicate the disease without knowing it. Beware, then, of playing Judas, and let the babies alone.—*Scientific American*.

Mind and Body.

Whatever mind may be, an outgrowth of the body or a thought of God, still its health, and in a certain sense its very existence, depends upon laws similar and every way analogous to those that determine bodily health and existence. The mind or spirit of man, derived at first from the breath of God, is no doubt "part and parcel" of the Divine Being. The mind molds the body after its likeness; a slow, moderate intellect has a slow, heavy casing; a quick, bright intellect is connected with a lithe, elastic tissue; a joyous spirit gleams from every line of its accompanying countenance, while the peevish, fretful one frowns out in every wrinkle, and the calm, trusting one sits serene upon a placid brow.

Hence, it seems certain in the clay image, man could not have been formed in the "likeness of God" unless the informing spirit that gave it vitality was part of the Divine essence.

But is every new human being an entirely distinct, separate creation, or can bodies propagate spirit—mind? Why are there corporal, family resemblances, and do these bodily likenesses always or generally indicate spiritual resemblances? If the mind is something that dwells wholly in the brain, there seems no possible solution to these questions. But if the mind be a subtle element pervading the physical organization more or less completely, while having its seat or focus in the brain, then there seems a path out of the tangle. One person, by practice and determination, forces a considerable portion of his brain into his legs and feet, becoming thereby a fine dancer; another directs the brain-power to the arms and hands with a view to becoming a practical musician, and no one has watched the hands of an expert pianist without being convinced that brain really flashed in every finger-tip. The mind, thus pervading every tissue and particle of the living organism, is communicable from parent to child, and the mixed mental traits of the parents form the new individual.—*Phrenological Journal*.

DIDN'T APPRECIATE.—Maculay once observed that prize sheep were only fit for candles, and prize essays to light them.

Young Folks' Column.

"From My Mother, Sir."

Not long since a small lad was called up to testify in the United States District Court in Philadelphia. The counsel, from the extreme youth of the lad doubted whether he understood the obligation of the oath he was about to take, and, with a view to test his knowledge, asked leave to interrogate him. This was granted, and the following colloquy took place:

Counsel—"My lad, do you understand the obligation of an oath?"

Boy—"Yes, sir, I do."

Counsel—"What is the obligation?"

Boy—"To speak the truth and keep nothing hid."

Counsel—"Where did you learn this my lad?"

Boy—"From my mother, sir," replied the lad, with a look of pride that showed how much he esteemed the early principles implanted in his breast by her to whom was committed his physical and moral existence.

For a moment there was a deep silence in the court room; and then, as eye met eye, and face gleamed to face with the recognition of a mother's love and moral principle, which had made their fixed impression upon this boy, it seemed as if the spectators would forget the decorum due to the place, and give audible expression to their emotions. The lad was instantly admitted to testify.

Behold the mother's power!—Often had evil influence and corrupt example assailed this boy. Time and care and exposure to the battling elements had worn away the lineaments of the infant face, and bronzed his once fair exterior, but deeply nestled in his bosom the lessons of a mother's love, which had given him strength in many a temptation and kept fresh in his mind reverence for truth—that strongest bulwark against all influences.

The Richest Boy.

The richest boy is not the one who has the largest amount of money in prospect. To our mind the richest boy is one who is good-hearted, honest, intelligent, ambitious, willing to do right. He is the one who loves his mother, and always has a kind word for her; who loves his sister or sisters, and tries to help them with true affection. He is the boy who does not call his father the "old man," but who loves him, speaks kindly to and of him, and tries to help him as the signs of old age gather fast upon his brow.

The richest boy is the one who has pluck to fight his destiny and future. He is the one who has the manhood to do right and be honest, and if striving to be somebody; who is above doing a mean action—who would not tell a lie to screen himself, or betray a friend. He whose young mind is full of noble thoughts for the future, who is determined to win a name by good deeds. This is the richest boy in America. Which one of our readers is it?

This boy we would be glad to see, would like to take him by the hand and tell him to go on earnestly, that success might crown his efforts. And if he is a poor boy, we should meet him at the threshold, bid him enter, and give him good advice, well and kindly meant. That other rich boy, we don't care anything about, for there are fools and snobs enough to worship, flatter, and spoil him.—*Ex.*

FOR BOYS WHO GO GUNNING.—almost every boy who goes gunning, if he can find nothing that he wants to bang away at, considers it the next best thing to kill a few woodpeckers. They look so funny wrong end up on the side of a tree, bobbing and whacking around the loose bark, that the temptation is strong and the poor jolly hammerer has no friends—so, bang! and down he comes; and he is given to the dogs to play with and tear to pieces. That poor little bird, if over a year old, has killed and eaten many hundred thousands of bugs' larvae, in the form of grubs and worms, and almost every one of a kind which is injurious to vegetation. The catbird, one of our finest singers, and a bird that is always sociable, if ever permitted to be so, eats a cherry occasionally, and of course must be banished or suffer death. He pays a better price for every cherry he eats than any fruiterer would dare demand in the market, in the worm he destroys, and throws in a complete bird-opera several times a day into the bargain.

A HINT TO BOYS.—The following significant advertisement lately appeared in a country paper:

AN APPRENTICE WANTED.—A boy that neither drinks, uses tobacco or profane language, can find an excellent opportunity to learn the printing business at this office.

Whereupon a contemporary takes the opportunity to give the following bit of good advice to boys generally: No employer will accept the services of a chewing, smoking, drinking or swearing boy, when a clean one can be found. Boys who have these bad habits, inevitably become dull, lazy and shiftless. They do not rise in life to respectable positions, but in a slipshod manner, sluff, sluff, sluff along, living from hand to mouth, and fetch up in the poor-house, the prison, commit suicide, or die miserable vagabonds.

Good Health.

Treatment of Diphtheria.

The following rules for the prevention or extirpation of diphtheria form the concluding sentences of a report submitted recently by Dr. Stephen Smith, of the U. S. Board of Health.

Precautions—The Dwelling or Apartment.

Cleanliness in and around the dwelling, and pure air in living and sleeping rooms, are of the utmost importance wherever any contagious disease is prevailing, as cleanliness tends both to prevent and mitigate it. Every kind and source of filth around and in the house should be thoroughly removed; cellars and foul areas should be cleaned and disinfected; drains should be put in perfect repair; dirty walls and ceilings should be lime-washed; and every occupied room should be thoroughly ventilated. Apartments which have been occupied by persons sick with diphtheria should be cleansed with disinfectants, ceilings lime-washed and woodwork painted, the carpets, bedclothes, upholstered furniture, exposed many days to fresh air and sunlight. All articles which may be boiled or subjected to high degrees of heat should be thus disinfected. Such rooms should be exposed to currents of fresh air for at least one week before re-occupied.

Well Children.

When diphtheria is prevailing, no child should be allowed to kiss strange children, nor those suffering from sore throat (the disgusting custom of compelling children to kiss every visitor is a well contrived method of propagating other grave diseases than diphtheria) nor should it sleep with or be confined to rooms occupied by, or use articles (as toys taken in the mouth, handkerchiefs, etc.) belonging to children having sore throat, croup or catarrh. If the weather is cold the child should be warmly clad with flannels.

When Diphtheria is in the Family.

The well children should be scrupulously kept apart from the sick, in dry and well aired rooms, and every possible source of infection, through the air, by personal contact with the sick and by articles used about them in their rooms, should be rigidly guarded. Every attack of sore throat, croup, or catarrh, should be at once attended to. The feeble should have invigorating food and treatment.

Sick Children.

The sick should be rigidly isolated in well aired (the air being entirely changed at least hourly) unlighted rooms the outflow of air being, as far as possible, through the external windows by depressing the upper and elevating the lower sash, or a chimney heated by a fire in an open fireplace; all discharges from the mouth and nose should be received into vessels containing disinfectants, as solutions of carbolic acid or sulphate of zinc, or upon cloths which are immediately burned, or if not burned, thoroughly boiled or placed under a disinfecting fluid.

WHY AMERICAN WOMEN ARE UNHEALTHY.—If we trace the history of New England back a few generations, we find a stalwart race of mothers and grandmothers; and even now there are specimens of these, healthy, active, happy, of ages varying from three-score-and-ten to one hundred years; and if we trace the history of American women from the landing of the Pilgrims to the advent of Dr. Clarke's book, we shall find the degeneracy exactly corresponding with the increase of sedentary habits, fashionable dress, gormandizing on indigestible food and condiments, forced and precarious development, sensational literature, and dosing and drugging for the multitudinous ailments consequent on a mode of life which has so little of nature and so much of the preternatural about it. Until the children and young women of America return to the more normal ways of their ancestors, they will go down, down, in the scale of vitality, with, or without co-education, or school education of any kind. Co-education is one of the measures that will exercise a saving influence; but alone it will not arrest the deteriorating tendency. This requires a thorough inducting into the laws of hygiene and their strict application to practical life. In this, and in this only, is the hope, not only of American women, but of American men, and, indeed, of the human race.—*Phrenological Journal*.

DIPHTHERIA A MALARIAL POISON.—The microscope demonstrates that typhus and typhoid fevers and all their genera, diphtheria, etc., are generated by malarial poison. New York is given as an example, where the sewers and stoves murder 18,000 people annually; the death rate being 34,000 whilst the normal rate should be but 11,000. The remaining 5,000 are thrown into other channels of murder and suicide. The same evil prevails throughout the territory we have mentioned, and we do not believe the *Manufacturer* can do a greater service to its readers than to urge reform in stoves, sewers and ventilation.

MEASLES.—The *Calistoga Free Press* understands that this epidemic is prevailing there, and has become quite wide spread. It is mostly confined to children, and that which has, thus far, made its appearance, is of a mild type and readily yields to care and suitable attendance.

Domestic Economy.

Useful Recipes.

EDITORS PRESS:—I send you some cooking recipes which we have tried and found very good and they are so simple that even a dyspeptic could not object to them:

BROWN BREAD.—1 cup of corn meal, scalded; 1½ cups graham flour; 1½ cups white flour; ½ cup of syrup or molasses; 2 tablespoonfuls brewer's yeast, or two-thirds cup of home-made yeast; a little salt and water, enough to make a stiff batter. Set in a warm place to rise, and when light bake in a hot oven in muffin rings or loaves, the muffin rings are best.

TAPIOCA PUDDING.—1 cup of tapioca and a teaspoon of salt; put in three large cups of warm water and soak three or four hours; pare and core enough apples to cover the bottom of a pudding dish, and fill the hollows where the cores were taken out, with sugar and a very little nutmeg or cinnamon; pour the tapioca over the apples and bake three-quarters of an hour. This recipe is for apples that cook easily. Serve with sugar, cream, or milk or a warm sauce.

CREAM CAKE.—1 cup of sugar; 2 eggs; 1 tablespoonful of butter; beat together with a little salt; 4 tablespoonfuls of water; 1 teaspoon of yeast powder mixed with the flour, flavor with lemon. This makes two cakes. The cream is made with one-half pint or more of milk. Heat the milk in a dish in a kettle of water and thicken with two eggs, a little salt and sugar, beaten together, and one tablespoon of corn-starch mixed in a little cold milk, stir well and let it just come to a boil. When cold flavor with lemon, cut open the cakes and put the cream between the pieces. I. Santa Cruz.

WATERED BUTTER.—In the course of some investigations made by Professors Angell and Hehner, England, out of analyses of fifteen samples of butter which were determined by them, twelve of the samples, which were undoubtedly good butter, contained 6 to 13 per cent. of water; the astonishing quantity of 42.3 per cent. was found in one sample from London, or an excess of about 32 per cent. of water, for which Londoners pay from 32 to 48 cents per pound. Another butter from the same place had 24 per cent., these high ratios being due to the fact that the butter had been treated with milk. On the other hand, sample purchased in Ventnor was found to contain under 4 per cent. of water, and according to the authors it contained 50 per cent. of foreign fat. The authors also found that genuine butter spread out on sheets of paper and exposed for a week to the air in the laboratory became, so far as the senses could judge, indistinguishable from tallow.

BEAN PORRIDGE.—Parboil the beans as if for baking; drain and put them in the liquor. This needs the salt earlier than the soup, and no flavor save the beans. Boil until the beans become broken and tender, and then add hulled corn, or Indian meal, or both. Stir in the meal carefully, not to lump, or get too thick. When it is well cooked and seasoned properly, take a large spoon, and stir thoroughly together. You will have a luscious dish, and "better when nine days old," says the proverb.

A slice of a nice piece of pork is a relish in either of the above dishes, for the snet should be kept for shortening, as there is usually enough left in the bones for the soups. I never knew an edge-bone to cost more than ten cents, often only six cents per pound. Two or three good meals and pies can be obtained from one. The coming winter some one may like to try it.

MAKING COFFEE.—A correspondent gives this receipt for coffee: Use about one tablespoonful for each person, and one egg mixed with it. Place this in a coffee-pot, put in a little cold water, and then the desired amount of boiling water; place upon the stove and let it come to a boil. If no egg is used, it should never boil over a minute. If an egg is used, it may boil two minutes, when it will be ready for use. The coffee-pot should be as close as possible, so as to retain the flavor. The object of using a little cold water is to give a little time for hot water to extract its virtues before it boils.

ROYAL FRUIT CAKE.—Five cups of flour, five eggs, one and one-half cups of sugar, one cup of molasses, one and one-half cups of butter, one teaspoonful of saleratus, one-half a cup of milk, two pounds of chopped raisins, three pounds of currants, one and one-half pounds of citron, two tablespoonfuls of cinnamon, one nutmeg, two teaspoonfuls of cloves. This is a splendid receipt. I have some cake now that I made a year ago, and it is nicer now than when first baked.—*The Household*.

GROUND RICE GRUEL.—Daisy Eyebright gives the following: "Boil one tablespoonful of ground rice, rubbed smooth with a pint of cold water, in a pint and a half of milk, with a bit of cinnamon and lemon peel. Sweeten slightly, or season with salt."

BAKED EGGS.—Beat up six eggs, one tablespoonful of flour, six of sweet milk; melt your butter in the frying-pan; when hot, turn the whole in, well-beaten, and bake in a hot oven.



PUBLISHED BY

DEWEY & CO.

J. DEWEY, W. B. EWER, G. H. STRONG, J. L. DOONE

PRINCIPAL EDITOR.....W. B. EWER, A. M.

Office, No. 224 Sansome street, Southeast corner of California street, where friends and patrons are invited to our Scientific Press, Patent Agency, Engraving and Printing establishment.

Subscriptions payable in advance.—For one year, \$4; six months, \$2.25; three months, \$1.25. Remittances by registered letters or P. O. orders at our risk.

ADVERTISING RATES.—1 week. 1 month. 3 months. 1 year
Per line.....25 .50 \$2.00 \$5.00
One-half inch.....\$1.00 \$3.00 \$7.50 24.00
One inch.....2.00 5.00 14.00 40.00

Large advertisements at favorable rates. Special or reading notices, legal advertisements, notices appearing in extraordinary type or in particular parts of the paper, inserted at special rates.

No Quack Advertisements inserted in these columns.

The "California Granger."

Subscribers will please settle all arrears for subscription to the "CALIFORNIA GRANGER" at this office. All patrons of that journal are invited to forward their subscriptions to the PACIFIC RURAL PRESS.

SAN FRANCISCO:

Saturday, January 23, 1875.

TABLE OF CONTENTS.

GENERAL EDITORIALS.—The School Book Question; A Late Plim, 49. Wheat Shipments in 1874; Broom Corn No. 2; Curative Properties of Grapes; Dairying in Monterey County, 56. Landscape Gardening—No. 2; "Proper" Wheat; Carolina Parrot; Bellevue Nursery; Planting Trees, 57. Patents and Inventions, 60.

ILLUSTRATIONS.—A Late Plim, 49. Piling Wood on a Side Hill, 51. Carolina Parrot, 57.

CORRESPONDENCE.—The Season at Sacramento; From the Sierras; Tuolumne County; Tree-Planting, Under-Drainage, Etc.; How to Destroy the Alfalfa Parasite, 50.

USEFUL INFORMATION.—A New "Ratsbane;" Artificial Furs; Cement for Attaching Labels to Metal; Weather Observations; The First Patent; Painting Old Buildings; Minuteness of Fichus Seeds, 51.

PATRONS OF HUSBANDRY.—Progress of the Patrons in California; New Granges; Meetings; Etc., 52-53.

HOME CIRCLE.—Ripe Wheat (Poetry); Rural Winter Evenings—Past and Present; Youth's Pleasures; The Effect of Imagination; Two Kinds of Girls; Keeping up Appearances; Our Tell-Tale Lips; To be Married; Love for the Old Homestead; Wanted by the Nation—A Book on the Trees of America; Security for Integrity; A Sad Story of Neglect; Young America, 54. Don't Kiss the Baby; Mind and Body, 55.

YOUNG FOLKS' COLUMN.—"From my Mother, Sir;" The Richest Boy; For Boys who go Gunning; A Hint to Boys, 55.

GOOD HEALTH. Treatment of Diphtheria; Why American Women are Unhealthy; Diphtheria a Malarial Poison; Measles, 55.

DOMESTIC ECONOMY.—Useful Recipes; Watered Butter; Bean Porridge; Making Coffee; Royal Fruit Cake; Ground Rice Gruel; Baked Eggs, 55.

HORTICULTURE.—Bellevue Nursery; Forest Trees, 57.

STOCK BREEDERS.—How to Determine Finesse of Bone; Value of Blood, 58.

POULTRY YARD.—The Good Points of Pekin Ducks; Hay for Fowls, 58.

THE HORSE.—Wintering Farm Horses; Sanitary Rules for the Stable; Glanders in England, 58.

AGRICULTURAL NOTES from various counties in California, 60.

MISCELLANEOUS.—Why not Eat Oysters in Summer? 50. Brooks' Improved Process of Distillation; Piling Wood on a Side Hill; The People's Banks, 51. The Text Book Matter, 58. Interesting Steam Boiler Experiment; The Artificial Vanilla; Gilding and Silvering Silk Thread; Varnish that will Adhere to Metal; Leather from Tripe, 62. Assembling in Machine Making; Thermo-Electricity in Iron Ships; Astronomical; To Preserve Color in Dried Flowers, 63.

Wheat Shipments in 1874.

We have prepared the following table with a view to inform our readers of the amount of wheat shipped from San Francisco during the past year. The shipments during each month are given with the ruling rates of freight within the month, giving the highest, lowest and average rates. It will be seen that the aggregate amount is 264,410 tons, of which 159,951 tons were shipped to Liverpool, 85,886 tons to Cork, 3,157 tons to Dublin, 2,114 tons to London, 1,781 tons to Falmouth and 1,501 tons to Havre.

WHEAT SHIPMENTS AND FREIGHTS DURING PAST YEAR— RATES OF FREIGHT.				
	Tons.	Highest.	Lowest.	Average.
January.....	13,697	\$5.76	\$3.17	\$4.12
February.....	21,908	5.12	3.17	4.19
March.....	12,483	5.76	3.12	4.10
April.....	12,783	4.12	3.5	4.9.9
May.....	8,200	3.13	3.9	3.13.6
June.....	16,907	4.12	3.15	4.3.9
July.....	9,115	4.6	3.17	4.2.6
August.....	25,056	4.76	3.17	4.2
September.....	17,942	4.5	3.5	3.15
October.....	44,271	4.5	3	3.12.6
November.....	53,254	4.15	2.10	3.12.6
December.....	28,734	4.15	2.17	3.16

ORANGE SEED.—Persons who wish to secure orange seed should see the notice of Dr. J. Strentzel in the RURAL. Both the Dr. and his seed can be relied upon.

Broom Corn.—No. 2.

In the PRESS of last week we gave a review of the commercial points of this subject; we will now examine it agriculturally.

If you can grow good Indian corn on your land you can grow broom corn; if the former will not succeed you had better let the latter alone. In fact, broom corn is even more exacting in its requirements than Indian corn, as it is particularly desirable to have a uniform growth of brush. On this account the level river bottoms that are subject to annual overflows are preferable to the undulating surface that varies more in quality of soil. But although both Indian and broom corn thrive best on a rich mellow soil the character of the atmosphere is really of more importance than the quality of the soil. Neither of them require a long season; a short season of rapid uninterrupted growth, suits them best. For this reason, hot, sultry nights are favorable to the growth of corn. This is a crop that does not figure much in "mixed farming." In favored localities it generally predominates to the exclusion of other crops. In New York the lower portions of the Mohawk Valley are famous for growing broom corn; and in California the valleys of the Sacramento and Feather rivers have been proved to be good localities. It will not do well along the coast; fogs and cold winds being detrimental to it.

When the proper locality is found prepare the ground as for Indian corn. Do not plant until there is no longer any danger from frosts; about the first of May is early enough. Plant in drills three feet apart; using about 12 pounds of seed to the acre. The seed will vary in price from eight to 12 cents per lb. Cover to the same depth as you would Indian corn; and if you could go over the field after planting with a light roller, it would be well. During the growing season it should have at least two courses of cultivation, while three would be still better. When the plants are well out of the ground, about eight inches high, go through with a light cultivator and, if the weeds are at all dominant use the hoe. When the growth is about "knee high" give the field a little deeper cultivation. Clean, thorough work, in a field of broom corn will pay if there is any pay in the crop, for it is of the first importance that the brush be kept clean and attain a straight uniform growth. Fields are usually planted year after year with this crop, and if it is started under a thorough, clean system, it can easily be kept so, as the seed is not apt to become foul. There are no agricultural districts that present a more agreeable view to the beholder than those where broom corn is grown.

Much depends on the management of the brush after it is grown. No matter how perfect the growth may be it will be of little value unless the several processes of harvesting and preparing for market have been properly attended to. The first of these processes is breaking down the brush. This should be done when the stalks have attained their full growth, and when the brush is just beginning to turn from green to yellow. This is very essential, for as the brush becomes yellow it also becomes brittle, losing the tough, springy quality that forms one of the points of a good broom. Manufacturers and dealers insist on this as one of the essential marketable qualities of the product. When the brush is ready to "table," go between two rows breaking the brush down—without severing it from the stalk—leaving the tops at right angles with the stalks. They should be broken about eight inches below the base of the brush. As you pass along between the two rows bend them inward, placing the brush of one row on top of that of the other. This is called "tabling."

It should remain in this condition about three days, when it is to be cut and placed where the process of drying is to be completed. In all stages of its handling see that the brush is laid so as to avoid breaking, or over-bending of the twigs. While curing it should be stored where it will remain perfectly dry, exposed to the air if convenient, but not to the sun, as this is injurious to the color.

When thoroughly cured it can be threshed and baled for market. The labor and expense of threshing are slight. All the machinery required is a revolving cylinder, lined with long, slender teeth, and run by any available power. A one horse-power attachment would be sufficient for any amount of brush grown on one ranch. This revolving cylinder operates like a comb upon the brush, removing the seed and other foreign matter. The man feeding the thrasher has only to place each head of brush on the cylinder which revolves from him, and it is cleaned at once. It will clean the brush about as fast as the feeder can pick it up and place it on the machine. We cannot give the exact cost of a broom corn thrasher, but they should not cost more than twenty-five dollars, exclusive of the power.

When threshed the brush is ready for baling. In this process, and in all others as was suggested above, the handling should be done

carefully, and the brush placed in proper order. When thus managed a good deal of pressure may be applied to it without injury to the brush and the bulk thus materially reduced.

To an intelligent person many points will present themselves in cultivating and managing this crop, whereby labor and time may be saved; and it is one of those products that call for particularly good management and strict economy, and if broom corn districts have generally been prosperous ones—and such is the fact—it is because the growing of this crop has developed close and judicious management, and not from large returns from the crop. There are localities within this State well suited to either broom or Indian corn, but they constitute an area comparatively small, and should be reserved for one or the other of these products. And we would suggest here, that those who are endeavoring to develop diversified farming in California should give more consideration to the diversity of climate and soil here; and bear in mind the fact that the system of "mixed farming," as it is denominated in the East, under which every farmer is expected to produce nearly everything required by him, is not applicable to California. Even at the East it is now considered by many as a sort of Utopian scheme, propagated by those who have assumed the position of guardian angels of the farmer, and who expect to secure his isolation from other industries and professions, to the salvation of the farmer and the ruin of all the world beside. There are many products besides broom corn to which certain districts should be almost exclusively given, and, in our opinion, the millennium will be brought about sooner by increasing the dependence of section upon section, and class upon class, than by striving for independence and isolation.

Curative Properties of Grapes.

That fruit is healthful to man and beast has been almost universally acknowledged in all ages and in all parts of the world; but that it is decidedly curative is a truth that is just dawning upon mankind. Grapes especially have been proven by invalids' experience—not by medical dissertations—to be not only harmless as food, but really medicinal. Persons troubled with irregular digestion, and in some cases confirmed dyspeptics, have derived lasting benefits from a diet composed largely of grapes. Deranged livers and vitiated blood, have also derived benefits from the use of grapes. Results like these have very naturally directed the observations of many to the effects of grape-cutting upon the inhabitants of those countries where they form a considerable portion of food, and also to the effects upon animals.

These observations have apparently been confirmatory of previous impressions in favor of the curative properties of grapes; and with some this faith is so strong that a desire has been expressed to see a grape cure established in California. We would be pleased to receive any suggestions on this subject.

REMEDY FOR THE SCALE INSECT.—The foggy mornings we have been having of late have developed upon some young orange and lemon trees a fungus resembling soot, which is very troublesome in Australia. I have tried the remedy, viz: weak lime water applied warm and have been cleaning the plants of scale by applying the following preparation: $\frac{1}{4}$ pound soft soap; $\frac{1}{4}$ pound flowers of sulphur, $\frac{1}{4}$ pound nux vomica dissolved in six quarts of hot water. But the slow going over plants and leaves with a brush, makes me wish we could apply remedies to our fruit trees with the atomizer. I am sure it would pay one who is going into the orange business to use an apparatus which would, so to speak, condense a medicated fog upon every part of the plant. Perhaps such an invention has already been made but I am not aware of it. JENNIE C. CARR.

ON FILE.—"Florists' Flowers," J. C. C. "Sierra Valley and some of its New Flowers," J. G. L.; "Business Associations in New Zealand," A. W.; "Distribution of Rain," G. B. C.; "Letter from San Bernardino, Cal.," T. S. D.; "Letters to Boys—No. 1," I. E. J.; "Address to the Ocean," A. T. F.; "Dress Reform," N. A. P.; "A Grange Wedding," I. A. W.; "The Grange Socially," J. T.; "Spanish Merino Sheep," J. S. G.; "Letter from Haywood," A. Sister Patron; "From St. Helena Grange," C. A. T.; "Petalmia Grange, etc., with Song," F. P.

SOAP.—The late storm has given farmers plenty of water; now they only want plenty of soap to make a "good, clean year" of it. In another column will be found an advertisement of a new brand of soap called the "Granger." The firm making it has been lately established in this city, and intend manufacturing a good article. They have a large establishment. It is rather a delicate matter to recommend people to use soap, so we refer our readers to the advertisement.

INDEPENDENT FARMERS.—W. H. Nash, of Magnolia farm, Napa, says that some farmers in his section exchanged help to avoid hiring as much as formerly. This "helping your self" method will make farming pay better in any section. Will the proprietor of Magnolia farm, (one of the best laid out and cultivated in the State,) tell our readers what he knows about pruning?

Dairying in Monterey County.

Immediately preceding the last rain we received a call from a subscriber who is engaged in dairying to moderate extent in Carmell valley, Monterey county. He speaks favorably of the location as a dairying district, and from his accounts—and he is a close observer and strictly practical man—we should class this among the districts where dairymen might prudently pitch their tents.

But before we can really give character and permanency to California dairying it will be necessary for us to emancipate ourselves still further from foreign and Eastern notions; which, though they may forever remain sound and orthodox in the places where they originated, will not bear transplanting to California. Besides there are some very erroneous impressions prevailing here in regard to the advantages of Eastern dairying districts, as compared with our own. Even those who are thoroughly informed in the matter, having perhaps spent a large portion of their lives in those districts, are in many cases disposed to indulge in overdrawn and unjust contrasts between the old and the new homes.

It is, therefore, not difficult to account for the semi-romantic notions prevailing here in regard to Eastern dairying. The darker shades of the picture are not given. Their rich pastures as they appear in June and September are stereotyped in the fancies of those who talk about them. It is not considered that for a longer period than our fields are dry and brown with drought, theirs are covered with snow; and that the cool spring water that is described as running through their milk-houses, is perhaps brought in pipes from a greater distance than many of our dairymen would have to bring it on their farms; with other points and considerations which should be given before a just comparison can be drawn.

Our visitor from Carmell valley informs us that he provides for the season of scant feed in summer, by growing corn fodder; and that he was fortunate, or prudent enough to have on hand a large crop of pumpkins to feed through the late brief season of poor feed, during which a large portion of the cattle in the State have been reduced to a condition from which it will take them a long time to recover. He also informs us that during three weeks of the butter season he made from the milk of four cows 104 lbs. of butter. Although there is nothing startling in this statement, it is encouraging as a basis upon which the product of the ordinary dairy cows of the country can be estimated.

Another Glorious Rain.

A week ago the fields were looking rather brown, and seedsmen, nurserymen, and, in fact, all business classes, were quite blue. Now the fields are already changing to the green that so well becomes them, and the face of the whole business community is beaming with a merry, hopeful smile. There have been more desperate emergencies for want of rain, but rarely has it been more thankfully received. It will do an immense amount of good. It has already established a general confidence in the abundance of the wheat crop of the coming season. Dairying and all other departments cannot fail to receive their share of benefit from the late rain.

PROFITS OF FINE SHEEP.—While recently in Visalia, we received an invitation from Hon. Thomas Fowler, to visit his little ranch (500 acres) near town, and look at his band of fine sheep. Arriving at the pasture we at once remembered the flock of sheep as the choice French Merinos of the late Robert Bulow of Niles station. They now number over three hundred. They are undoubtedly the finest band of French Merinos in the State. He has sold his yearling rams at an average price of over one hundred dollars each. This band of sheep requires less than 20 acres of good alfalfa for permanent pasture, and the yearly income will be: wool, \$1,000; 150 ram lambs, \$15,000; 150 ewe lambs, \$7,500; total, \$23,500. And all this income from only 40 acres of land. What we want here in California is better stock and small farms well cared for.

THE PACIFIC GROCER.—We have received the initial number of a new periodical entitled *The Pacific Grocer*, a new journal started in the avowed interest of the "middlemen," and designed to make open warfare on the "Grangers." Judging from the contents of the number before us it is anything but "Pacific." It has been started fully one hundred years behind the times—so far behind that a century of absence will fail to bring it abreast of even the average man of the present day.

EXTENSIVE TREE PLANTING.—We are told by our bay nurserymen that an unusual number of trees are being ordered for new sections of the State, showing that permanent improvements are extending throughout the great interior. Mr. J. R. Trumbull, a S. F. seedsman, filled orders for over 2,000 trees in December, and has furnished 1,000 to a single party in January.

Landscape Gardening—No. 2.

[Written for the Press by F. P. HENNESSY.]

I have already shown in part the mistakes likely to occur to the amateur in landscape gardening. I now hope to show how to guard against such mistakes. Should it occur to the minds of any that I have not gone fully into the question I hope they will bear in mind that these remarks are general, and not intended for the craft, but for the public at large. When the intention of improving the landscape is matured, give the landscape gardener an opportunity of seeing the place, after which it will be necessary to let him know about what sum you propose to spend on it. This is of the first importance, as he will be able to make a plan of improvement to suit the amount to be expended. When this line of business is not strictly adhered to, disappointment is quite apt to occur. In many cases that have come under my notice, gentlemen have accepted plans of improvement which have never been fully carried out, and which at present look like a man's head with the hair eaten off in spots. This is often their own fault, laboring under the impression that it will not cost so much.

The next step will be to have a topographical survey made. This done, the next in order will be the location of the house and offices. The style of these are of great importance, as it will be necessary for him to harmonize the grounds with the buildings. For instance—if the mansion be of the Roman style, then the entrance ought to be directly in front, and the wider the better, because the more width there is in the roadway the more imposing and grand the house will appear. This style also calls for trees and shrubs of stiff habits, more especially on the line of the road, taking care to keep the largest growths well in the back ground. On the other hand, if the buildings are of the Swiss cottage, or a combination of different styles of architecture, the house never ought to be seen from the entrance. It should be so hidden by the shape of the drive and character of the planting as to create surprise by its sudden appearance. In all cases the drives look better to have good width. Trees and shrubs of loose and drooping characters are best suited to this kind of places. There are many of this character of trees and shrubs which will not grow in dry, arid or sandy soils, while there are some which do best in these soils.

It is important that this matter should be correctly understood, for it is very disheartening indeed to purchase things which will most assuredly die.

Men pretending to understand landscape gardening, without a good practical knowledge of trees and shrubs are not fit to be intrusted with the spending of any money but their own. There are many beautiful trees and shrubs that have never been introduced into the State of California, but which would do well in and around San Francisco. Under the head of Shrubbery I notice a very great want; and in answer to inquiries am told that such and such will not grow here, while before your eyes are things of the same nativity, similar in habit and growing quite as well as in their native places. I am not afraid to say that even on the sand hills around San Francisco shrubs will flower better if due preparation is made before planting, than in the made soils of the parks of New York. There the soil is too rich, which encourages more growth than flowers.

"Proper" Wheat.

This variety of wheat is attracting considerable interest on account of its early maturity, great productiveness and the excellent quality of flower made from it. Sonoma county claims the credit of growing the first of this wheat last season; and according to the Sonoma Democrat, Starr's mills, of Vallejo, use this wheat exclusively for flour shipped to the European market. But we are assuaged by parties posted in the matter that this must be a mistake, as there was supposed to be only 2,000 tons of this wheat produced in this State the past season. One house in San Francisco purchased 300 tons for which extreme rates were given. They paid \$1.60 for the proper wheat, when they were buying common for \$1.50 and choice club for \$1.53½. The same house also shipped 200 tons of this wheat on farmers' account. The demand for it was quite active. What will be the result of its introduction in the English market remains to be seen, but favorable reports are expected from it. Still it may possess all the qualities that we desire in wheat for home consumption, and not meet with favor in England, as their tastes differ somewhat from ours in regard to first-class flour.

But whatever the reception of the proper wheat may be in England, it will undoubtedly become popular in this country for several reasons, among the most prominent of which is its early maturity.

THE STATISTICIAN.—We have received No. 1 of this work, published by our former indefatigable agent, L. P. McCarty. It contains 148 pages, and much valuable matter. When we have examined it minutely we may make further mention, and perhaps give some valuable extracts to our readers.

The Carolina Parrot.

The Carolina parrot, or parakeet, shown in the accompanying cut, is the only one of the two hundred species of its genus, which has been found in the United States. It is restricted to the warmer parts, rarely venturing north and east of Virginia, though it visits much higher latitudes in the West. But it is abundant in the regions of its residence, namely, South Carolina, Georgia, Florida, Alabama, Louisiana, and along the Mississippi up to Kentucky.

These parakeets are exceedingly annoying to the farmers, not only in consuming, but in laying waste and destroying his grain in stacks or standing in the field. They also lay waste orchards of pear and apple trees, merely for the seeds, and this often before the fruit is ripe, when they consequently will not eat the seeds. They come in large numbers, and, though they appear to be concerned for the slaughter of their companions, they will not fly away from the deadly weapon which is destroying them; thus hundreds are often slain by the side of a



CAROLINA PARROT.

single stack of grain, which they had covered so densely as to appear like a vast green carpet spread over it.

The roosting places of this species are in hollow trees, and the holes excavated by the larger species of wood-peckers. At dusk, a flock may be seen alighting against the trunk of a large sycamore or other tree having a considerable excavation within it. Alighting on the bark beneath the aperture, as many as can crawl into it do so, and the rest attach themselves by claw and bill to the exterior, and here repose throughout the night.

The flight of this bird is rapid and straight, through the forest or over rivers and fields, accompanied by inclinations of the body, which expose to view alternately the upper and under parts. They deviate from a direct course only when impediments occur, when they glide gracefully aside and continue on. They keep up a general cry when on the wing. They circle wide and high over a spot before alighting, and move with facility upon the trees, often in a sideling way; or hang in every imaginable posture. They are easily tamed, being subdued by repeated immersions in water. But as they cannot be educated to utter words, as their screams are very discordant, and especially as they are exceedingly destructive, they ought not to be regarded as desirable pets.

ing before they plant, we should not see so many large forest trees planted for ornament in small yards nor so many hundreds of dollars wasted in indiscriminate planting.

Acacia Melon Oxylon was the first tree that attracted our attention. Rapid growth, beautiful foliage, and symmetrical form are its strong points. For the park or avenue we know of nothing finer.

Old Man's Beard is as quaint in appearance as in name. A weeping evergreen and very rare which one might choose for the cemetery.

The Pope's Tree.

There is a specimen of the Cupressus Semper-virens of which the seed came from a tree near Rome, under which the Pope is accustomed to spend many of his leisure hours. It has a great attraction for some devoted Catholics who visit the grounds. But for a small lawn we should certainly choose a specimen of the Cupressus Fragrans, owing to its beautiful light green foliage, its moderate size (10 ft.) and delightful fragrance.

There is a specimen of the Red Cedar, of

HORTICULTURE.

Bellevue Nurseries.

To lovers of trees a visit to these splendid grounds is a rare treat. They are easily reached by the Telegraph Avenue horse cars, of Oakland. Mr. S. Nolan, proprietor, has made trees the study of his lifetime, and delights in his profession. His grounds are laid out with the skill of the true artist, and are designed to show specimens of everything in the line of ornamental trees and shrubs suited to our climate. We have space to name only a few out of many. There one may learn of a tree, the foliage, shape, habits of growth, size when mature, the purpose for which it is suited as well as its proper soil and treatment. If people would spend a little more time in look-

Bermuda, as highly prized for ship timber. The parent stock came from the Ionian Isles.

A Strange Freak.

The grounds and drive were laid out in the form of a pear whose larger part was a circle; and in this circle was a star. A specimen of the *Golden Arbor Vita*, quite oblong, was planted so as to have its greater diameter parallel with the outside of the circle. This did not conform with its habit of growth and the tree actually turned around 90 degrees so as to point to the east. We understand that this is not by any means the only case of the kind.

A very rare tree is the *Gravilia Robusta* called in Australia, Silk Oak. It now has beautiful orange-colored blossoms. The foliage is a wonder.

The Manna Tree.

This is a species of Australian gum so named from its habit of secreting a farinaceous substance of which children are very fond.

The Place for Gum Trees.

We were especially pleased with the great variety and fine specimens of Australian gums, and with one among them just suited for the crests of those apparently barren hills away in the distance. The eye of our friend lighted with the enthusiasm of Nature's poet as he pictured the day when that landscape would be relieved and the whole country fertilized by these magnificent trees. This is just the sphere they occupy in their own country.

Araucaria Excelsa is a very rare plant whose home is in a still more genial climate. It comes from the Norfolk islands and our frosts have a strange effect upon it. Wherever the terminal bud of this evergreen is nipped back three or four others start out. This gives it the appearance of a hand with many fingers, each becoming a new hand in turn. Or you might say that the instinct of the tree provides it with a new overcoat for every frosty spell. The tree bids fair to become a solid mass of foliage.

Those trees that have been planted in the specimen grounds for the public convenience are sacredly devoted to their original purpose and are above price. A devotee would sooner part with his relics than Mr. Nolan with one of these pet trees.

When Elwanger & Barry of the famous Mount Hope nurseries, of Rochester, N. Y., visited California, they were so much attracted here that they came a second time with their note books and went over the grounds thoroughly. There were a large variety of plants in the green houses and our admiration might have been equally excited in that direction if the day had been long enough. Again we say, if you love trees go for pleasure, and if you want to plant go for instruction.

Forest Trees.

We recently had the pleasure of a visit to the grounds of Geo. R. Bailey, of Brooklyn. He began in a small way only a few years since, and had only half an acre of ground; but he has now not less than 180,000 fine trees ready for market, worth, probably, \$9,000. Prices range from three to ten dollars per hundred. On large contracts for forest planting Mr. Bailey guarantees the growth of every tree, and collects pay when they are two feet high. The trees are generally sold when one foot high. They have all been started under glass and transplanted into boxes. They are then shipped in smaller boxes, with 3x6 inches of dirt attached to each plant. If properly cared for they never stop growing from the time the seed starts.

We saw a stump six inches in diameter that was taken from a tree which had exactly two and a half years' growth from the seed. There is a red gum in the next yard thirty feet high and eight inches in diameter, which has three and a half years' growth from the seed. The red gum is growing into favor on account of the superior character of the timber. The growth is almost as rapid as that of the blue gum. Muller, of Melbourne, the distinguished authority on such subjects, recommends for timber white ironwood, boxwood and red mahogany gum. We understand that these are all species of the *Eucalyptus*. There are not less than fifty different varieties in Australia, a great part of which have found a home with us.

The wet weather in Australia during the past season made it difficult to gather seed, and for that reason the supply of gum trees now in our market is much smaller than it would have been otherwise. Several other nurserymen are depending upon Mr. Bailey for their supply.

Nothing to Do.

This is a complaint that we hear oftener in California than almost anywhere else; and we meet many who, having only a few hundred dollars, seem to think there is no opening for small capital except the stock market. We wish such men would start out and hunt up such places as Mr. Bailey's, and see if they cannot take a hint. Little capital, little room, no experience. In four years' time—independent, profitable, growing business. Secret—took good articles, just coming into demand; confined his attention to very few things—worked.

Mr. Bailey will extend his business very largely next year, and in future his present grounds will serve merely as a depot.

STOCK BREEDERS.

How to Determine Fineness of Bone.

This fineness of bone reveals itself to the practised eye in several ways:

1. The legs will be small below the knees and the hock joints.
2. The tail will be tapering and very slender below the rump.
3. The head will be small, the muzzle fine, the horns delicate.
4. The whole body will be smooth, round, and flowing in outline.

I may add these points are of great significance, especially as the fineness they indicate bears company with a proclivity for the speedy accumulation of fat. It is only by patiently comparing many coarse-boned cattle with finer ones, or by comparing with each other cattle having varying degrees of fineness, that the feeder, at least, acquires a quick eye and an accurate judgment in these particulars.

Other Points in Harmony with Fine Bone.

With this fineness of bone and fullness of excellent flesh, we want a few other points each of which usually attends and indicates a propensity to fatten: For example the neck should be delicate at the throat, but broad at the base, tapering rapidly to meet a small head on the one hand, and growing deep and wide to join a well developed chest on the other.

That portion of the breast called the brisket also evinces by its breadth and depth superior capacity in feeding. An unusual development of this interesting appendage is regarded by experienced breeders as a proof that the animal possessing it can easily reach and maintain a high condition. It should be broad, full and deep, but not haggly. The enormous size which brisket attains in some of the Short-horns, is by reason of its significance.

Next, the eye of the genuine feeder is large, full, somewhat prominent, well opened. It is clear and bright but not glossy—mild and placid rather than restless. Such an eye gives evidences of the quiet disposition which helps the animal to fulfill its destiny. A small, dull, sunken, half-opened eye is a serious defect.

Such breadth of forehead also as may manifest a good-sized brain is a point not without its value. Note further that length of limb in the bovine family is generally connected with lankness of body. The cattle of the South that wander perpetually to feed on the scanty grass are long-legged and light-bodied—the very opposite of good feeders. Short limbs are therefore desirable for our model Iowa steer, and if in addition they give support to a body rounded out into full symmetry and having superior size and weight, then we shall have a harmonious union of all those desirable points which characterize the perfect beef animal and adapt the form to his fate.—*Farmers' Journal.*

VALUE OF BLOOD.—All good dairymen are now learning the policy of raising their own cows. Now, suppose from your thirty cows you raise ten heifer calves for the dairy. The milking strain of Short-horn blood has proved itself excellent, both for quantity and quality of the milk. It also gives good feeding qualities, and will produce a much more valuable carcass for the butcher. We know some half-blood short horns that give 7,000 to 8,000 pounds of milk, and make 300 pounds of butter per year. It is quite safe to say that your heifers at one year old would be worth \$10 per head more than common ones. This, therefore would pay you \$100 extra the first year on the heifer account, and if you should raise as many steers they would be worth as much extra. A dairyman certainly makes a bad mistake to use common bulls when he is raising heifers for the dairy or steers for the butcher. He had better pay double the price that F. mentions for a bull of milking Short-horns or Ayrshire, or Jersey blood.—*N. Y. Times.*

POULTRY YARD.

The Good Points of Pekin Ducks.

We have in this remarkable breed of ducks, introduced last year, the result of long years of thorough breeding for economical ends. Where the population is so dense as in China, they are compelled to economize in the use of animal food, and much more attention is paid to the breeding of fish and poultry than in this country. Many live upon rafts, or in boats, and keep large flocks of ducks as a means of subsistence. The Pekins, without doubt, belong to the Mallard family, and are the largest of all the varieties that spring from that stock. They cross readily with the Rouens and Aylesburys, making larger birds than these, but not equal to the Pekins. There is not much doubt that their grades will prove fertile, though it will take another year to test this matter. Some of the Rouen grades come out clear white, but are readily distinguished from the pure Pekins by the shape of their bills and smaller size. Some of them are nearly solid black, and remarkable for their soft, glossy plumage. It is possible that this cross may be used to advantage, in increasing the size of the Black Cayugas, and their fecundity, points in which that very fine variety is lacking. Other grades come out looking very much like finely-bred Rouens, with only a slight derangement of the plumage. The cross with the Aylesburys

seems more natural; the grades are readily distinguished by their lighter bills, smaller size, and different build behind. So far as the observation of this season goes, there is no improvement to be made upon the Pekins in size, or beauty of form and plumage, by the cross. Rouens and Aylesburys are increased in size. We claim for the Pekins a comely form of snowy whiteness, that makes them very desirable pets for the lawn, or for small bodies of water in cultivated grounds. They are a very hardy bird, and judging by the experience of the past two seasons, are more easily raised than either Rouens or Aylesburys. The Pekins come about as near to being perpetual layers as any of the gallinaceous breeds of fowls that have that name. After the observation and experience of the past two summers, we think the Pekins are fairly entitled to the front rank among our useful aquatic fowls. Villagers and farmers can breed them with more profit than any other duck.—*W. Clift, in Ohio Farmer.*

HAY FOR FOWLS.—Many years ago, when a young fancier, I often noticed that after making new nests in pens where the fowls were confined in winter, that they would gradually disappear. It was some time before I discovered what became of them; the fact was they were eaten by the fowls. Since then when vegetable food was scarce, I have always kept good sweet hay in their reach. It should be kept in a rack or tied in a bundle and hung up. It must not be allowed to get in the dirt and be trampled on. I do not think it any advantage to cut the hay fine.

THE HORSE.

Wintering Farm Horses.

I have noticed for some years, that farm horses have had a hard time during the winter months, not because of work, but of the want of care. Farm horses wear out as fast, if not faster than horses that work during the year; now there is a cause for all this. In the first place horses that have been in the open air and sunshine, should have these hygienic influences all of the time, and horses that have been in active exercise should still be allowed ample room and opportunity for what exercise nature requires. Then again horses that have been fed high should by all means have enough feed to so recruit them, that they will look sleek, and have fat enough to keep them warm.

Therefore when horses have accomplished the work of the season, and are to rest for some weeks or months to come, the first thing to be done is to have the shoes taken off, then give them their regular feed for a few days at least, that is till they look fresh and their eyes look bright, and they show signs of good rich blood in their veins; then drop the noon feed of grain, and go on for a time with two feeds per day, and then leave off the morning feed of grain, and finally drop the feed of grain at night; still I would never let a horse stand and paw or ask for food at night, for it is a loss rather than a gain to try and cheat a horse out of his honest living.

As the noon feed is withdrawn, give some green food, say potatoes, carrots or turnips, but I would limit the roots to a fourth or a half peck for a few days, then give once, twice or thrice a week as the case may be. By all means give plenty of hay, and good, fresh, pure water, with salt as they may require. Now as to exercise, after the horse has eaten his morning meal, turn him loose in a good, large yard, and let him remain till noon; after the noon feed turn him out again until night, then put him up and feed for the night; of course stormy days I should keep him in the stable. If horses are kept at work part of the time, keep the shoes on and feed according to the work, but by all means give the yard exercise whenever he is let up from work.—*Massachusetts Ploughman.*

SANITARY RULES FOR THE STABLE.—A thorough horseman very truly writes: Provide blankets for the horses. A warm blanket will save feed and loss of time by sickness. Avoid exposure to cold rains, and if caught in a storm let the horses be rubbed dry before the blankets are put over them. Keep the stalls clean and on no account allow manure to gather beneath the horses' feet. This injures the hoofs and often produces cracked heels. Besides, it renders the air foul and is very injurious to the animals' eyes. In the effort to keep the stable warm, proper ventilation should not be neglected. The curry comb and brush should not be idle; their use invigorates the skin and promotes healthful secretions.

GLANDERS IN ENGLAND.—This horrible disease is now very rife among the horses in London and in the collieries in Durham. In the latter place, a miner contracted the disease, and died with it. He was inoculated by washing his hands in a cistern at which an affected animal had drunk. There is a defect in the English law relating to infectious diseases, as far as respects glanders. The authorities have only power to seize and kill those infected animals found in the streets. This defect will be remedied, probably, and glandered horses will be subject to be seized and slaughtered at any and every place.

Personal Equation.

It has been found by observation that there is a great variation in the power of different individuals to determine small intervals of time, or in the time occupied by them to become conscious of a fact passing before them. This is a matter of much importance in making astronomical observations—for instance the determination of the time of the exact contact or obscuration of heavenly bodies. The correction or averaging of this difference is called "Personal equation." Some years ago, at a meeting of the Albany Institute, Prof. Hough, the astronomer in charge of the Albany Observatory, read an interesting paper upon this subject, illustrating it by means of an instrument called a chronograph, which term, literally interpreted is a time-writer or an instrument for recording intervals of time. It consisted of a disk covered with white paper, and revolved by clock-work. From the center of the disk radii were drawn to the circumference, dividing the disk into equal parts, representing minute divisions of time. Over this revolving disk was placed a stylus, actuated by an electromagnet. A circuit-breaker was connected with this electro-magnet and held in the hand of the observer, whose personal equation it was desired to determine. Another disk, upon which a circular black spot was painted, was also caused to revolve by clock-work. Before it was placed in an opaque bar, which eclipsed the black spot at each revolution of the disk. The exact time at which the edge of the black spot reached the obscuration of the bar was automatically registered. The observer holding the circuit-breaker in his hand stood in front of the revolving disk, and was directed to operate the circuit-breaker in order to make the mark upon the disk the moment the black spot reached the bar. The difference in the time of registering by the observer and the automatic registering of the instrument constituted the personal equation. It varied considerably with different persons. We do not now remember what the maximum variation was, but we recollect distinctly that with some, it was nearly double that of others. This difference in the power of determining precisely when an event happens, as seen by the eye, depends primarily upon peculiarities in nervous structure. It may, however, vary in the same observer from time to time. Professor Hough remarked, in his interesting paper, that he found his personal equation increased always when he felt ill.

THE PHYSICAL FORCES ARE MODES OF ETHER PRESSURE.—Professor Challis, of Cambridge University, after long and exhaustive researches upon galvanic and magnetic action, concludes that the hydro-dynamical theory of action is alone correct. The theoretical explanation of galvanic and magnetic phenomena is to be sought by means of mathematical deductions. The author believes that the science of theoretical physics, laid down in Newton's "Principia," is by no means confined to physical astronomy, but comprehends the principles of all departments of natural philosophy which have relation to physical force. His conclusions on galvanic and magnetic action have been reached in conformity with Newton's rules and principles. The author's main conclusions, relative to the *modus operandi* of the physical forces, to which this system of philosophy seems to point, are: That they are all modes of pressure of the ether; that the forces concerned in light, heat, molecular attraction and repulsion, and gravity are dynamical results of vibrations of the ether; and that electricity and galvanic, and magnetic forces are due to its pressure in steady motions.

DANGERS OF BENZINE SCOURING.—M. Dumas, at a recent meeting of the French Academy of Science, stated that, in examining the process of scouring fabrics as usually practiced by cleaners of old clothes (washing in benzine), he had discovered a novel and dangerous cause of fire. Workmen engaged in this industry had frequently complained of the benzine becoming inflamed during the scrubbing; and in order to test the question, M. Dumas caused a piece of cashmere to be dipped in for a length of 18 feet. Every time the stuff partially emerged from the bath, while being rubbed between the hands, a sharp pricking sensation upon those members and on the face was felt; and finally sparks were emitted from the fabric, sufficient, if the scouring had been briskly continued, to have ignited the inflammable fluid.

AVAILANCES IN UTAH.—Dispatches from Salt Lake City, dated the 14th inst., say: Terrible snow storms are prevailing throughout the Territory. The cañons of Cottonwood are completely blocked with snow, and avalanches are occurring hourly, the citizens of Alta, Utah, fearing the destruction of the town from snow. They have guides out daily for the purpose of warning the people. The four men killed by an avalanche on Tuesday, will be buried tomorrow, under the auspices of the Masonic fraternity.

HARDENING THE SURFACE OF STEEL.—Mr. G. Arms, of Rochester, has proved that the surface of steel may be hardened, without hardening the mass of the metal, by placing the steel in a cylinder for example—upon an engine-lathe, and, while it is in motion, bringing into contact with it an emery wheel, rotating at a velocity of about one thousand eight hundred revolutions per minute.

"Rural" Facts.

The RURAL a high priced paper!—Is it? Not much! Let us consider the matter a moment.

Most agricultural papers space their lines out with leads. The RURAL is made mostly "solid." This gives it nearly one-third more lines.

Again, many rural journals contain more than one-half advertising. The RURAL runs regularly about one-half that amount, or one-fourth advertising matter.

Again, it contains more original agricultural matter more original domestic and farming correspondence, matter more condensed and carefully prepared and at greater expense than any other agricultural issue published in the United States.

Again, it is illustrated with a greater number of interesting and instructive engravings (greatly more expensive to publishers than reading matter) than can be found in any other agricultural weekly in the Union.

Again, the RURAL inserts no quack advertisements; humbug, entailing, immoral advertisements.

Again, by producing on this coast, for the benefit of all on this coast, so good a paper for our limited population, is it not comparatively cheap?

Again, would the class of readers who take the RURAL prefer a paper at half the price of the RURAL with its advertising columns filled with quack advertisements? with intriguing, debasing notices and shrewd dodges? or its reading columns profusely interspersed with wily paid puff? We think not! We know you would not! We have not made money out of the RURAL PRESS. We hope it will pay well sometime in the future. But it will not be from doubtful advertisements, paid puffs, contracted and careless editorial work. Unscrupulous publishers make the most money on cheap subscription and reckless advertising sheets; but are they the best, or really the cheapest papers for patrons to spend their time in reading?

A Good Binder for \$1.50.

Subscribers to this journal can obtain our Patent Elastic Newspaper File Holder and Binder for \$1.50—containing gilt title of the paper on the cover. It preserves the papers completely and in such shape that they may be quickly fastened and retained in book form at the end of the volume, and the binder (which is very durable) need continuously for subsequent volumes. Post paid, 25 cts. extra. It can be used for Harper's Weekly and other papers of similar size. If not entire, pleased, purchasers may return them within 30 days. Just the thing for libraries and reading rooms, and all who wish to file the Press. (amp)

SANBORN & BYRNES.



Mechanics' Mills, Mission Street, Bet. First and Fremont, San Francisco. Orders from the country promptly attended to. All kinds of stair material furnished to order. Wood and Ivory Turners. Billiard Balls and Ten Pins. Fancy News and Belsters. 257-8-29-bp

PACIFIC OIL AND LEAD WORKS,

SAN FRANCISCO,

Manufacturers of

Linseed and Castor Oils,

OIL CAKES AND MEAL.

Highest price paid for Flax Seed and Castor Beans delivered at our works. Office, 3 and 5 Front Street. Works, King Street, bet. Second and Third. feb-5-cow

ALEX. BUSWELL,

BOOK BINDER, PAPER RULER

AND BLANK BOOK MANUFACTURER.

418 & 420 Clay Street, S. F.

Blank Books Ruled, Printed and Bound to Order. Jan-1-y

SANTA BARBARA COLLEGE,

SANTA BARBARA, CAL.

A Boarding School for Boys and Girls, offering all the advantages of a thorough modern education. French, German, Spanish, Latin, Greek, Drawing, the Natural Sciences, Gymnastics and Dancing taught without extra charge. Vocal and Instrumental Music receive particular attention. Pupils furnish only a pair of heavy blankets. Next term opens January 6th, 1874.

Write for Catalogue to ELWOOD COOPER, President Board of Directors.

GUADALUPE ISLAND COMPANY.

Notice is hereby given that the annual meeting of the stockholders of the GUADALUPE ISLAND COMPANY will be held at its office, 306 Pine Street, San Francisco, on Saturday, January 30th, 1875, at 3 P. M.

WM. M. LANDRUM, President.

ARTHUR RODGERS, Secretary.

Davis & Sutton, Commission Merchants,

For California Fruits; also for the sale of Butter, Eggs, Cheese, Hops, Green and Dried Fruits, etc. 75 Warren Street, New York. Refer to Anthony Halsey, Cashier, Traders' National Bank, N. Y.; Ellwanger & Barry, Rochester, N. Y.; C. W. Reed, Sacramento, Cal.; A. Lusk & Co., Pacific Fruit Market, San Francisco, Cal. 3v-1-y

Brittan, Holbrook & Co., Importers of

Stoves and Metals, Tinners' Goods, Tools and Machines, 111 and 113 California, 17 and 19 Davis Streets, San Francisco, and 178 J Street, Sacramento

Geo. W. Chapin, Real Estate Agent, 434 Montgomery St., San Francisco, buys and sells Ranches in all parts of the State. City Real Estate exchanged for Country Property. MONEY LOANED. Post Office Box 1129

BREEDERS' DIRECTORY.

POURCHASERS OF STOCK WILL FIND IN THIS DIRECTORY THE NAMES OF SOME OF THE MOST RELIABLE BREEDERS.

OUR RATES.—Six lines or less inserted in this directory at 50 cts a line per month, payable quarterly.

CATTLE.

R. ASHBURNER, Baden Station, San Mateo Co., Cal., breeder of Short-horn cattle. Bulls for sale, from cows of choice milking strains.

J. BREWSTER, Galt Station, Sacramento Co., Cal., breeder of Short-Horn Cattle.

J. D. CARR, Gablian, Monterey Co., Cal., breeder of Trotting Horses, Short-Horn Cattle, Thoroughbred Spanish Marino Sheep and Swine.

A. MAILLAIRD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.

W. L. OVERHISER, Stockton, San Joaquin Co., Cal., breeder of Short-Horn Cattle and Berkshire Swine.

STANTON & POWERS, Sacramento, Cal. Choice Jersey Heifers at reasonable rates, Address L. C. Powers, Sacramento, Cal.

MOSES WICK, Oroville, Butte Co., Cal., breeder of Short-Horn Cattle. Young bulls for sale.

SHEEP AND GOATS.

MRS. ROBERT BLACOW, Centerville, near Niles Station, Alameda Co., Cal. Pure-Blooded French Merino Sheep for sale.

THOS. BUTTERFIELD & SONS, Hollister San Benito, Cal. Importers and breeders of Angora Goats and Sheep.

N. GILMORE, El Dorado, El Dorado Co., Cal., importer and breeder of Angora Goats.

LANDRUM & RODGERS, Watsonville, Santa Cruz County. Pure-Bred Angora Goats and Cotswold Sheep for sale.

SEVERANCE & PEET, Niles, Alameda Co., Cal., breeders of Thoroughbred Spanish Merino Sheep.

A. G. STONEISER, Hill's Ferry, Stanislaus Co., Cal., breeder of Pure-Blooded French Merino Sheep.

POULTRY.

GEO. B. BAYLEY, Cor. 16th and Castro streets, Oakland, Cal. Imported Brahmas and other choice Fowls for sale.

ALBERT E. BURBANK, 43 and 44 California Market, San Francisco, importer and breeder of Fancy Fowls, Pigeons, Rabbits, etc.

M. EYRE, Napa. Bronze Turkeys, Emden Geese, Choice Fowls, Pigeons, Rabbits, Ferrets.

Mrs. L. E. McMAHAN, Dixon, Solano Co., Cal. Bronze Turkeys now ready for sale from the best imported stock; also eight varieties of choice Chickens; Eggs in season can be purchased very reasonably.

Mrs. L. J. WATKINS, Santa Clara. Premium Fowls. White Leghorns, S. S. Hamburg, Game Bantams, and Aylesbury Ducks. Also, Eggs. 21v8-3t

C. W. WILSON, San Francisco. The largest and heaviest Bronze Turkeys the world ever saw. One pair, 19 months old, over 72 pounds now. I offer for sale extra large Toms, old or young; also Eggs. Correspondence solicited. Address C. W. Wilson, P. O. Box, 1874, San Francisco.

SWINE.

A. T. HATCH, Suisun City, Cal., breeder of Poland China Swine.

DAWSON & BANCROFT, U. S. Live Stock Exchange, S. E. Corner 5th and Bryant streets, San Francisco. All kinds of Common and Thoroughbred stock always on exhibition and for sale.

Poultry Breeders.

BRONZE TURKEYS.

THE HEAVIEST IN THE WORLD!

MY SPECIALTY.

I was the first man on this Coast to import and breed mammoth Bronze Turkeys. I have as progeny of my imported birds, the largest single Tom, Hen and pair or trio of Turkeys, for their age, that the world ever saw. One pair, 19 months old, now weigh over 72 pounds; Toms 40 pounds and over, Hens 20 to 30 pounds. This is not what the birds weighed six months since or what they will weigh when fattened, but what they weigh now as they run with the flock. During the coming season I propose to sell eggs for hatching from this stock; the eggs will be packed in my improved shipping box, which carries safely. Orders now received for early Spring delivery. I can spare a few extra large Toms; also, a few pair of great size. Weight guaranteed or no sale. I offer fowls and eggs from my very fine and choice collection of Brahmas, Cochins, Leghorns, Houdans, Ducks, etc. My yards contain the best strains of the above varieties. For further information apply to

C. W. WILSON,
P. O. 1874. San Francisco.

LOOK!

ALBERT E. BURBANK, Importer and Breeder of Fancy Fowls, Pigeons, Rabbits, etc. Also Eggs for hatching from the finest of imported stock. Eggs and Fowls at reduced prices. Send for Price List.

ALBERT E. BURBANK,
1v8-3m 43 & 44 Cal. Market S.F.

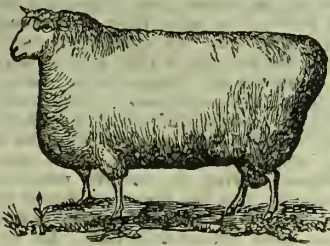
WHITE LEGHORNS.

I make these fowls a specialty and have spared no pains or trouble in procuring the best strains in the United States, and now offer for hatching at Eastern prices from the finest fowls on the Pacific coast. They are small, elegant, non-setters and very hardy, and for eggs are without a rival, being almost constant layers, and are truly styled the "farmer's fowl." Eggs, \$3 per dozen, (13) or six dozen for \$3. Securely packed to carry any distance, and delivered to the express on receipt of price. Cash to accompany order and orders taken in rotation.

W. J. HUNT.

Live Stock Notices.

B. W. OWENS, San Francisco. | E. MOORE, Stockton, Cal.



OWENS & MOORE,
COMMISSION MERCHANTS,

DEALERS IN

WOOL, HIDES, PELTS AND GRAIN.

Office—405 Front street, S. F. 14v7-3m

REEDVILLE HERD.

PROPRIETOR,

S. G. REED. - - Portland, Oregon.

I have for sale, Shorthorns of the most approved and fashionable families; among them are a few one year old Bulls of great merit, the produce of Cows imported direct from England, and sired by the renowned Mantalini bull, GOVERNOR GENERAL, 10,156, A. H. B., Vol. X, p 175. Also on hand,

AYRSHIRE CATTLE,

COTSWOLD AND

LEICESTER SHEEP,

AND BERKSHIRE PIGS.

of the highest standard. For particulars apply to

S. G. REED, Portland, Oregon,

Or WM. WATSON, Hillsboro, Oregon.

1v9-9w-1f.

U. S. LIVE STOCK EXCHANGE,

S. E. Cor. 5th & Bryant Sts.,
SAN FRANCISCO.

Fresh Milch Cows and Cattle; Saddle, Work and Carriage Horses; Thoroughbred Durhams and Devons; Pure Blooded Berkshire Pigs; Thoroughbred Cotswold, Southdown and French and Spanish Merino Sheep, sold on commission or bought on farm for cash. Address, DAWSON & BANCROFT P. S.—Special rates to members of the Grange.

12 Short-Horn Bulls,

fat and sleek, thoroughbred, just from Kentucky, at Saxe's Stables, 35 Ritch Street, between Folsom and Harrison, two blocks from Grand Hotel. Inquire at Saxe's Stables, or Room 32 Russ House. 3v9-3m

FOR SALE.

A pair of thoroughbred Chester White Hogs, one year old.
A. B. ROWLEY,
Mayfield, Santa Clara Co., Cal.

JACKS FOR SALE.

Two fine Jacks, one four and the other five years old, large and likely sired by old Samson, and of the best Kentucky Jinnets; the best stock of the kind in the State. Address B. C. EPPERSEN, 2v9-2m Bear Valley, Colusa County, Cal.

Lands and Homes for Sale.

NINE FINE FARMS FOR SALE.

Near Middletown, Lake county, containing respectively 1600, 1100, 600, 300, 200, 200, 130 and 80 acres. The most of these places contain as fine land as there is in California, and the home market averages twenty per cent. higher than San Francisco. When we take into consideration the quality of the soil, certainty of crops, the market caused by the development of mines and the Mineral Springs, the climate and privileges of schools and religious society, we are satisfied that no such inducements can be offered in any other part of the State, to those desiring to purchase land.

Having examined all these places personally, we can give a minute description of each. Apply to

JOSEPH PETTIT,

or WM. GORDON, No. 215 Kearny Street, Up Stairs, Ring the Bell. 3v9-1f.

FOR SALE.

HOMESTEAD AND FRUIT ORCHARD

About thirty-five miles from Stockton, containing three acres of land, a good house of eight rooms, good well, etc. Over two hundred fruit trees all in fine bearing order; such as Peach, Pear, Apricot, Apple, Plum, Figs, Oranges. A fine chance and a good market. Price, \$1,800. Title perfect. Apply to

GEO. W. CHAPIN,

434 Montgomery street, S. F., or this Office.

CENTINELA COLONY

LOS ANGELES CO., CAL.

SIX MILES WEST OF LOS ANGELES, CAL.

The unparalleled success of the

LOMPOC COLONY,

SANTA BARBARA COUNTY.

Has induced the "Centinela Land Company of Los Angeles" to subdivide and place in market for sale and settlement, under the direction and management of the "California Immigrant Union," of San Francisco, the "Centinela and Sausal Redondo" Ranches, containing Twenty-five Thousand Acres of Beautiful Valley Land, located seven miles west of the city of Los Angeles, and extending to and fronting on the Pacific Ocean. There is now on the tract an orchard of about three hundred acres, containing Orange, Lemon, Lime, Fig, Walnut, Almond and Olive trees, and a nursery of young Orange and Lime Trees. Some of the Orange and Lime trees are in bearing. The tract will be subdivided in twenty, forty, eighty, one hundred and sixty-acre farms, and sold upon easy terms and long credits.

Auction Sale of Town Lots

—AND—

5, 10, 20 and 40 ACRE FARMS.

WILL COMMENCE ON

Monday, Feb. 15, 1875, at 12 o'clock, M.

And continue Five Days. The sale will take place on the Rancho. Parties desiring to purchase should be on the ground a few days prior to the sale, in order to examine the property. Title—United States patent.

SITUATION.

"Centinela," with the addition of the "Sausal Redondo," contains 25,000 acres. The boundary of the Rancho commences three and a half miles from the city limits of Los Angeles, and extends to the Pacific Ocean.

TOPOGRAPHY.

"Centinela" is made up of one broad, level, fertile valley, of over twenty thousand acres, and beautiful fertile rolling hills near the ocean.

SOIL.

The soil is an exceedingly fertile loam, and is, without exception, the richest and most productive in Southern California. Its vicinity to the ocean insures a superior irrigation. Excellent wheat has been raised for the last two years upon the hills adjoining the ocean. This wheat field contains 1,000 acres, and covers the lightest soil upon the Rancho. There is no alkali or barren land.

SEMI-TROPICAL FRUITS.

There are a few bearing orange and lime trees upon the Centinela, and the fruit they produce is of the largest and finest quality. There is an orchard containing 6,000 orange trees three years old, and 1,700 almond, lime and lemon trees. The almond, lime and lemon trees will bear fruit in 1875. The orange trees will bear in five years. There are 7,000 three-year-old orange trees in the nursery near the orchard. Fig, pepper and gum trees grow without irrigation. The entire orchard can be taken care of by three men with six horses. The orchard will be kept undivided by the company, to save the expense of each shareholder having a few trees to take care of. The almond, lime and lemon trees will yield an immediate return. In five years each orange tree will produce \$20 per annum, or \$300 per share for those now planted. There are flowers in the garden in bloom every day in the year.

SHEEP.

A flock of about 14,000 sheep will be kept undivided, to save expense to the shareholders. The sheep will produce in increase and wool over \$2 each, yearly, over expenses. They will be grazed upon outlying and unsold lands of the company. The "No Fence" Law is in force in LOS ANGELES COUNTY.

CLIMATE.

The climate of the "Centinela" is without exception the finest and most equable in the world. It varies but little throughout the year. The mean temperature is about 60 degrees. The mercury falls but little below 60 in winter and rises but little above 60 in summer. You sleep under one pair of blankets and with your bed-room window open every night in the year.

AGRICULTURE.

The soil of the "Centinela" is admirably adapted for all kinds of grain, vegetables and fruit.

WATER.

The Centinela creek rises upon the Rancho and runs through the northern portion of the tract. It affords an abundance of clear spring water. The source of the Centinela creek consists of several natural artesian springs, showing that artesian water can be obtained by boring.

THE TOWN.

A square mile is laid off at an eligible point on the tract, with lots 31x135; avenue 100 feet, and streets 80 feet wide. A stream of water can be brought in so as to supply every lot with crystal, cool, sweet water. One of the forty-acre tracts is set apart for a College and Farm School, and there will be a Ten-acre Park on each of the four sides of the town, and Four Blocks in the center of the town for Public Buildings, Schools, etc. A large lot will also be set apart for each Religious Denomination, and a block given for the erection of a large hall by the different Fraternal, Grange and Temperance Societies.

FARE.

Parties desiring to visit the Rancho can take the 8:10 A. M. train of the Southern Pacific Railroad to Soledad, thence by Coast Line Stage to Los Angeles; by 4 P. M. train to Bakersfield, thence by stage to Los Angeles; or by Pacific Mail Co.'s and Goodall, Nelson & Perkins' steamships direct to Los Angeles, where conveyances can be had to go to the Rancho free of charge.

RAILROADS AND WHARF.

The Company intend building a wharf to enable Steamships from San Francisco and other places to land passengers on the tract. A narrow-gauge railroad will be built from Los Angeles to the wharf, a distance of about 12 miles. The Main Street and Agricultural Park Railway will soon be built to the park, about — miles from the tract. This railway will be extended to the tract as soon as the settlement will justify it. Lithographed maps can be had at the office in San Francisco. Apply to

W. H. MARTIN,

General Agent California Immigrant Union, 534 California street, between Montgomery and Kearny streets, San Francisco, to TEMPLE & WORKMAN, Bankers, or Gen. SHIELDS, Los Angeles, or O. L. ABBOTT, Corresponding Secretary State Grange Immigrant Aid Association, Santa Barbara.

P. S.—A second sale will take place on the Rancho, commencing on Monday, the 8th of March, 1875.



5,500 ACRES

Of the best portion of the old NOMELOCKE RESERVATION, in Tehama County, for sale very low; only five dollars per acre; one-third down, one-third in one year and one-third in two years, with interest at one per cent. per month. Will be sold all together or in two parcels. This is one of the finest tracts of grazing land in Northern California; is abundantly watered by numerous perpetual springs and has two miles of the Elder Creek, a clear mountain stream. Its grass never fails from drought, and is of the best quality for sheep and has no clover burr. 800 acres of level plow land; timber for posts, fuel, etc. Enquire of ALLEN WILCOX, Los Angeles, or F. B. WASHINGTON on the tract, twenty miles west of Tehama.

Banking and Financial.

The Pacific Mutual Life Insurance Company of California.

No. 41 Second street, - - - Sacramento

ACCUMULATED FUND, NEARLY

\$1,250,000.00.

\$100,000 Approved Securities, deposited with the California State Department as security for Policy holders everywhere.

LELAND STANFORD.....President
J. H. CARROLL.....Vice-President
JOS. CRACKBON.....Secretary

All Policies issued by this Company, and the proceeds thereof, are exempt from execution by the laws of California. THE ONLY STATE IN THE UNION that provides for this exemption.

Policies issued by this Company are non-forfeitable, and all profits are divided among the insured. Policies may be made payable in Gold or Currency, as the applicant may elect, to pay his premium.

Executive Committee:

LELAND STANFORD, J. H. CARROLL,
ROBT. HAMILTON, SAMUEL LAVENSON,
JAS. CAROLAN.

SCHREIBER & HOWELL,

11-29-00w-bp-3m General Agents, Sacramento.

California Farmers Mutual Fire Insurance Association.

Office, 6 Leidesdorff St., - San Francisco.

Directors:

A. WOLF, A. W. THOMPSON, I. C. STEELE,
I. G. GARDNER, J. C. MERRYFIELD, J. D. BLANCHAR,
G. P. KELLOGG, Treas.

Finance Committee:

I. G. GARDNER, J. C. MERRYFIELD, A. W. THOMPSON

Trustees:

J. M. HAMILTON, Lake Col. C. STEELE, San Mateo Co
J. C. MERRYFIELD, Solano Co. B. NALLEY, Sonoma Co
G. W. COLBY, - Butte Co. O. S. ABBOTT, S'ta Barba Co
H. B. JOLLEY, - Merced Co. A. W. THOMPSON, Sonoma Co
A. WOLF, San Joaquin Co. E. STEELE, S.L. Ohlsope Co
J. D. BLANCHAR, Pres't. W. H. BAXTER, Sec'y.

This association is organized for the purpose of affording the farmers of this State the means of safely insuring against loss by fire, at actual cost of insurance, without being connected with city risks. a322-1f

Anglo-Californian Bank.

LIMITED.

Successors to J. Seligman & Co.

London Office.....No. 3 Angel Court
San Francisco Office.....No. 412 California street.

Authorized Capital Stock, \$6,000,000,

Subscribed, \$3,000,000. Paid in, \$1,500,000.
Remainder subject to call.

DIRECTORS IN LONDON—Hon. Hugh McCulloch, Reuben D. Saseoon, William F. Schofield, Isaac Seligman, Julius Sington.

MANAGERS:

F. F. LOW and IGNATZ STEINHART,
SAN FRANCISCO.

The Bank is now prepared to open accounts, receive deposits, make collections, buy and sell exchange, and issue Letters of Credit available throughout the world, and to loan money on proper securities. 2v27-eowbwp

DIVIDEND NOTICE.

The Farmers' and Mechanics' Bank of SAVINGS have declared a Dividend for the half year ending December 31, 1874, at the rate of ten per cent. per annum on term, eight per cent. per annum on class one ordinary, and six per cent per annum on class two ordinary deposits, payable on and after January 15th, 1875. By order
G. M. CONDER, Cashier.
3v9-1m-bp

YOSEMITE HOUSE,

STOCKTON, CAL.

JAMES COLE, Proprietor.

This House contains all modern improvements; Saloons, Bath Rooms and Telegraph.
The only first-class Hotel in Stockton.

BELLA UNION HOTEL,

JOHN F. MILLER, Prop.,

SAN BERNARDINO, CAL.

This fine hotel is situated in one of the best parts of the city, and the proprietor will at all times use his best endeavors to promote the comfort of his guests.

COMPTON & BINFORD, REAL ESTATE BROKERS

Employment and Intelligence Office, Horse and buggy free to see property. Offices at Compton, and at corner of Court and Spring streets, Los Angeles, Cal.

AGRICULTURAL NOTES.

BUTTE.

LAROE WHEAT ACREAGE.—Butte Record, Jan. 16: Dr. Glenn will seed this season about 20,000 acres in wheat. Some of our Eastern readers will think this a lie, but we can't help it.

CATTLE are being shipped from this county to San Francisco. There is much rejoicing here at the improved prospects brought about by the rain.

MR. FINNELL, of Walsh farm, says the Chico Enterprise, has sown an immense crop, and is making great preparations for the seeding of next year by summer-fallowing.

CONTRA COSTA COUNTY.

A HEAVY PORKEE.—Contra Costa Gazette, Jan. 9: A 3-year old Berkshire hog raised by Mr. Charles S. Lohse, of Ygnacio valley, and killed last week, weighed, after being dressed, 526 lbs. If any other hog raised in this section has equaled this weight we shall be glad to chronicle the fact; but we are inclined to think no other in this section has furnished pork enough to put the balancing weight so far out on the arm of the steelyard.

COLUSA.

THE RAIN.—Colusa Sun, Jan. 9: There has fallen during the storm one inch and eight hundredths. This gives us for the season, 8.76 inches of rain. All this has fallen so as to go down in the ground, none of it has been wasted and the land is in good condition.

FRESNO.

THE CROPS, ETC.—The Fresno Expositor, Jan. 13th, just before the late storm said: Crops in this county are not yet suffering for rain, nor will they for two weeks yet, but the grass crop is plucked out badly by the frost and overstocking, but if we should have a good rain in the course of ten or twelve days, the grass will revive and do well. The great trouble is, and has been for two weeks past, the ground is too dry to plow and plant, this has kept a great deal of grain from being put in. All summer fallowed and early sown grain, if we have one or two days rain this month, and as much in February and March, with a shower in April, will yield well. People owning sheep and cattle are the worst off as it is a most impossible to secure range and a general scramble is now going on to secure grazing land. Some parties are talking of driving their sheep out of the county; others say they want to sell. Thus far there has been no suffering, on the contrary we learn that stock generally is in a good condition. In the southern part of the valley we learn that prospects are less favorable than here. A large portion of the plains is already destitute of vegetation, and the enormous bands of cattle and sheep are rapidly eating off the grass on the balance. Many who could, as well as not, have grown fields of alfalfa, and provided against a drought, are now regretting that they didn't, but if the drought continues they will only have the satisfaction of thinking what might have been.

We give the above to show the condition of things there before the storm. Now, of course, all is right.

KERN.

ROUGH ON THE SHEEP.—Just before the storm the sheep in the vicinity of Bakersfield were suffering severely on account of the scarcity of feed. Many of them are so poor they could not be driven away, and were offered for sale at 75 cents per head.

THE HYDE STEAM WAGON.—Much interest is felt in this county about the Hyde steam wagon. The Bakersfield Courier says: It is thought that over such a road as that to Panamint it can pull wagons loaded with 50 tons of freight besides conveying its own supplies of fuel and water.

MONTEREY.

RAIN AT LAST.—Monterey Democrat, Jan. 10: Sufficient rain has fallen to set aside all fears of drought. Wednesday night there was a slight sprinkling, followed, on the following night, by a steady and copious rainfall, and the indications are of a decidedly wet time, "which the same" it will give us great pleasure to put on record. The prospects for crops hereabouts is very favorable, and vegetation generally, which was languishing from the effects of severe frosts, will now rally under the life giving influence of the late warm rains. Although, the outlook seems propitious enough, it being certain now that the prognostications of a dry season were prematurely indulged.

NEVADA COUNTY.

SHELTER FOR STOCK.—Nevada Transcript, Jan. 15: A long cold storm would now be the means of great losses to stockmen. But few owners make any provisions for such emergencies, and the result is a great loss annually whenever a storm occurs. Good policy would seem to dictate another course. We noticed one man a short time since, who had, by experience, learned that shelter for his cattle in winter is necessary. He was erecting sheds and storing away fodder for use in just such a time as this. He will lose no stock, and every dollar he expended in that manner will be returned double fold. It is cruel to raise stock and let them perish for want of food and shelter. We hope others will follow the example of the man mentioned.

PLACER.

MOUNTAIN APPLES.—Placer Herald, Jan. 16: It is demonstrated that the higher regions of

the foothills produce apples equal to the best in the world. It is but a short time ago since nearly all the apples used in this State in the winter time were imported from Oregon. It is not so now. California mountain apples are now most in demand. San Francisco still receives large supplies from Oregon, because the mountain people of California do not yet raise enough to supply the demand. Other cities in the valley are largely supplied from the mountain counties most convenient to them. California mountain apples are now preferred to Oregon apples, where they can be had for the same price; therefore, the farther from the line of Oregon supplies the better is the price that can be obtained for our apples. In this respect Placer has an important advantage over any other section of the State. We are right on the line of the railroad, and can send our apples over the mountains, out of the reach of the Oregon trade entirely, almost as cheaply as we can send them to San Francisco, and, at the former place, can realize at least twice as much for them as at the latter.

MR. ARMSTRONG, who has an apple orchard a few miles above Auburn, has lately been shipping large quantities from Auburn station to Reno and other points in Nevada, where he receives for them four cents per pound. Mr. Armstrong acknowledges that he is making money by raising apples, and in view of this advantage of market, we should think he ought. The country is here, thousands of acres of it, that can be had almost for taking, that is suited to this business. How many are there who are ready to improve the opportunity here offered, of entering into a pleasant and remunerative business, where water is pure, where health prevails, and where the climate equals, all things considered, the best in the world?

GRAIN PROSPECTS.—Foothill Tidings, Jan. 16: On the plains between this and Sacramento the prospects were never better than now for a full crop of grain. J. G. Gould, a farmer of several hundred acres of land near the southern line of Placer county, paid us a visit early this week, and from him we learn that it has been a very favorable season for putting in grain; that he had his all in before Christmas and it was looking well—so well that even without any more rain he thought they would have a fair crop—this will insure them a heavy one. They have had, according to Mr. Gould, about as heavy and long-continued frosty nights there as here; but beyond the temporary check to the growth of grass no harm is expected to result, as fruit-buds are not forward enough for injury. Land on those dry plains that could hardly be given away 10 years ago, is now worth \$20 to \$40 an acre; and, mark our word, so it will be here. Farms about here that can now be bought for what the improvements would cost, will in a few years bring a good round sum, and be worth it for homes.

SAN JOAQUIN.

THE CROP PROSPECTS.—Stockton Independent, Jan. 13—just before the storm: So far as we have been able to learn, the grain crop in San Joaquin county has not as yet suffered any noticeable injury from the prolonged season of dry weather. The heavy fogs which have prevailed have been advantageous, and the frosts, which have been light, have not been detrimental. In some localities farmers are beginning to entertain fears that the late sown grain will suffer damage unless refreshed by rain in a very short time.

CORRECTION.—WEST SIDE CROPS.—A correspondent of the Morning Call, writing from Bantock, Jan. 18th, says: The dispatch from Stockton in your issue of this day, stating that on the west side of the San Joaquin the grain is entirely killed, and that no amount of rain would save it, is a mistake. Your correspondent at Stockton had undoubtedly formed his opinion from an article in the Stockton Independent of about a week ago, which said that the grain on this side the river was dying, and that north winds had prevailed here for a few weeks. The truth is that there has been no heavy north winds at all during the season, the weather having been unusually calm. It is true we have had but 3½ inches of rain up to yesterday morning, but the grain has not suffered at all; the fogs have kept the ground moist, but the cold weather for the past two weeks has kept the grain from growing much, and with spring rains our prospects are good, and it would take but a little more rain for us to raise what they call a good crop on the east side of the river.

A correspondent of the same journal writes to similar import from Ellis, under date of Jan. 16th.

SANTA CLARA.

CHEERING REPORTS.—Gilroy Advocate, Jan. 16: The faces of our farmers which had assumed an elongated appearance are now round and blooming, and the spirits of all are buoyant and elastic. As an instance of the change which has suddenly taken place we will state that hay which could not be bought on Tuesday for less than \$20 per ton can now be had for \$12. Most of our farmers had kept steadily on plowing during the dry spell, and in most localities in this vicinity being in excellent condition for that purpose and consequently there is a large area of grain already in, which will receive the full benefit of the last rain. There are a few isolated spots where the moisture has dried out and the grain has died, which will have to be sown over, but these instances are very rare hereabouts. Some grain is already up several inches, and although the cold and frost of the past two weeks has not allowed it to make much progress, it will now undoubtedly take a fresh start and go a "booming."

Cattle and sheep men became very much discouraged, as they saw the young grass, which had received such a vigorous start, wither and die for want of moisture, and good range was anxiously being sought out. The timely rain, however, gave them fresh hope, and they are now content to leave their flocks and herds where they are. All apprehensions of a dry season are now set at rest, and we may calculate on an average yield at least. Some of the benefits of the storm may be destroyed should a cold, dry, north wind set in and continue any time, but this is not very probable and we need not borrow trouble on that score. A healthier feeling is already prevailing the community, and the hopes awakened will give a buoyancy to all kinds of business, which has of late been exceedingly dull. As we go to press, (Friday afternoon) the indications are still favorable for more rain.

TWENTY-THREE COUNTIES.—San Jose Mercury, Jan. 19: Reports from twenty-three counties in different sections of the State give a flattering report of the crops. The acreage of grain in all of these counties will be largely in excess of last year, while the condition of the ground is likely to be all that is desired. The present rain is general throughout all this section and has dispelled all fears of drought. From present indications, California will, at the coming harvest, show many millions of cents of grain in excess even of last season's immense yield.

STANISLAUS.

CROPS.—A correspondent of the Stockton Independent, writing from Modesto, Jan. 13, says: A great deal more land is under cultivation than in previous years. 45,000 acres of land is cultivated for wheat in the immediate vicinity of Modesto, which will yield, should it be a favorable year, 800,000 bushels.

SONOMA.

THE CROP AND SEASON.—Sonoma Democrat, Jan. 16: This season so far has been the most favorable for wheat growing than any winter since 1869. In consequence a much greater area than for some years past has been sown. For the past three weeks adobe lands have worked to uncommon advantage; fields which have laid idle for some years past because too wet to plow in season for a crop are now seeded in wheat. The long dry spell, pliable condition of the soil, and prospect of a partial failure elsewhere caused our farmers to seed lands to wheat plowed for other purposes. Should the season continue as favorable we look for the largest crop ever grown in the county. The rain commenced falling on Wednesday morning and continued steadily through the day. While we were not especially in need of rain, we rejoice that other sections of the State have been relieved from a fear of drought.

SACRAMENTO.

BRIGHTENING PROSPECTS.—Folsom Telegraph, Jan. 15: We were in the country the other day, in the direction of Roseville, and all along the Sacramento road are to be seen for miles broad rolling fields, tinged with the growing grain, presenting a pleasing and cheerful prospect. Never before have the farmers in that flourishing neighborhood put in so many acres. But there seems to be a feeling of uneasiness because of the cold dry weather, and the belief seemed to be generally entertained that unless rain came soon, the crops would be materially damaged. But there is no longer ground for apprehensions, for the long hoped for rain has come at last, and in great abundance.

TULARE.

IRRIGATION.—The farmers of Tulare have been so badly frightened by the prospects of an utter failure of crops in that vicinity, up to the advent of the late storm, that notwithstanding the present joy at the sudden change, they are fully alive to the necessity of irrigation for their main support. They are right in that conclusion. A thorough system of irrigation would make Tulare the garden of California—without fact, and it will ever remain a place of uncertain success—failure being the rule, success the exception.

A PUBLIC CALAMITY.—The total destruction of the Deaf and Dumb and Blind Asylum on Sunday last is a calamity which cannot be estimated in dollars and cents. In that view \$200,000 will probably cover the loss. It required two years to bring the edifice and grounds to the recent good condition existing at the time of the fire. The asylum was the best public edifice on the Pacific coast. The walls were built of rubble-stone, strongly bonded and anchored with iron, more care having been taken in this respect because a severe earthquake occurred before the structure was finished. There is nothing now left of the main edifice but smoldering ruins and unsightly walls, and it is doubtful if the latter are in a condition to serve for a new edifice. The inmates saved nothing but what they stood in. They are now temporarily provided for at various localities about Oakland.

FIRE AT GLENN FARM.—On the 10th inst. the storehouse on the Glenn farm was burned, together with the agricultural implements and machinery belonging to this extensive ranch, and 3,000 sacks of wheat and barley. The loss is estimated at from \$10,000 to \$15,000. The fire took from the stovepipe.

SEND THE RURAL EAST.—Our paper receives many compliments from persons in receipt of copies in the Atlantic States. We believe that over 1,000 copies monthly are now sent to residents east of the Rocky Mountains. How else can non-residents get more interesting and reliable information of our soil, climate and productions. While being read as a novelty from our favored land, the paper is sowing seeds of immigration of no little importance.

PATENTS & INVENTIONS.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

[FROM OFFICIAL REPORTS FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.]

By Special Dispatch, Dated Washington, D. C., Jan. 19th, 1875.

FOR WEEK ENDING JAN. 5TH, 1875.

SUSPENSION BUCKLE.—Edwin J. Fraser, S. F., Cal.

AMALGAMATOR.—Edwin J. Frazer, S. F., Cal.

PUMP.—Lewis Goodwin, Gold Hill, Nevada, and Samuel A. West, S. F., Cal.

GANG PLOW.—Christian Myers, Marysville, Cal.

ROTARY PLOW.—William H. Foye, S. F., Cal.

STENCH TRAP.—John P. Schmitz, S. F., Cal.

REISSUES.

TRACK CLEARER FOR HARVESTERS.—Orin Du Bois, San José, Cal.

APPARATUS FOR COMPACTING GRANULAR SUGAR INTO BLOCKS.—August F. W. Partz, Oakland, Cal.

COMPACTING SUGAR INTO BLOCKS.—August F. W. Partz, Oakland, Cal.

COAL SCREEN AND CHUTE.—Martin R. Roberts, S. F., Cal.

*The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue. Note.—Copies of U. S. and Foreign Patents furnished by DEWEY & CO., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with perfect security and in the shortest time possible.

EGYPTIAN OR MEDITERRANEAN CORN.—It was late last Spring before we could secure a supply of this seed. Finally it reached us, and as far as we could we filled orders. At this writing we have a stock on hand, and doubt not we shall be able to fill most, if not all orders received. The grain, which surpasses in nutrition, that of any other variety of corn known, is quite small, and of a dark red color, and is produced from a shoot that comes out at the top of the stalk, which curves like a swan's neck. In this respect it is an oddity, and when seen for the first time is very attractive. The stalk grows to a height of from 7 to 9 feet, is finer than other corn, and is prolific in leaves from root to top, and is excellent for fodder, or for sowing. In its native country it is a perennial, sprouting afresh from the roots. It yields both of grain and stalks immensely. Should be sown thick in drills. Seed per pound, by mail, post paid, 20 cents; otherwise, 10 cents per pound. Address, R. J. TRUMBALL, Seedsman, 425 Sansome St., San Francisco, Cal.

For Bleaching or Washing in Cold, Warm or Hard Water.

FALKINBURGH & CO'S

GRANGER SOAP

HAS NO EQUAL.

Don't fail to give it a trial, and be assured of a saving of money, time and labor. It speaks for itself. Warranted to accomplish more and do greater execution than any other soap. It is pressed, wrapped and perfumed.

ONCE USED, ALWAYS USED.

Sold by the principal Grocers throughout the country. Manufactured by

FALKINBURGH & CO.,

Oregon St., below Front, bet. Washington and Jackson, San Francisco, Cal. 4v9-10p

1875. Established 1857. 1875.

CAPITAL NURSERY AND SEED HOUSE.

W. R. STRONG and ROBERT WILLIAMSON, Proprietors, Having united their interests in the Seed and Tree business, offer to the public the largest and finest growth of both Seeds and Trees ever offered to the California public, of their own production, and also from the largest and most reliable houses of the Eastern States and Europe, all of which we offer as low as Eastern Dealers.

TREES. Fruit, Shade, Ornamental, Evergreen, etc., raised in our Nurseries of the very best varieties. Dealers and Growers furnished at very lowest rates. Among our numerous varieties we call special attention to BRIGGS' RED MAY PEACH, the earliest known, large, handsome of excellent flavor and good shipper.

SEEDS. Vegetable, Flower, Field and Tree Seeds, and Flowering Bulbs and Plants.

100,000 pounds Finest Quality California ALFALFA, RED and WHITE CLOVER, KENTUCKY BLUE GRASS, RYE GRASS, ORCHARD GRASS, VERNAL GRASS, MESQUIT GRASS, TIMOTHY, RED-TOP GRASS, and every other Grass adapted to the Pacific States and Territories.

All the finer qualities of our Seeds will be forwarded by mail (post-paid) to customers at Catalogue rates, on receipt of money, which can be sent by postal orders or registered letters, or express, at our risk.

CATALOGUES AND PRICE LISTS on application, and forwarded by mail. WAREHOUSE, 8 and 10 J street, NURSERIES, U street, SACRAMENTO CITY. TREE YARD, I street, next to Library Building.

W. R. STRONG.

Fresh Seville Orange Seed

At One Dollar per pound, will be forwarded by mail in one pound packages on receipt of the price. Address, DR. STRENTZEL, Martinez, Contra Costa Co., Cal.

Nurserymen.

Established 1853.

Stocks for Nurserymen.

Plum Seedlings, Mirobolan, the best French stock, does not sucker..... \$50 per 1000
 Apple Seedlings..... 10 per 1000
 Pear Seedlings..... 10 per 1000
 Cherry Seedlings, Mazzard..... 12 per 1000
 Cherry Seedlings, Mahaleb..... 20 per 1000
 Walnuts, English, 4 to 6 feet..... 15 per 100
 Cork Elm, best Elm, 4 to 6 feet..... 15 per 100
 Blue Gum or Eucalyptus, in variety..... 5 to 10 per 100
 Magnolia Grandiflora.....
 Magnolia Acuminata.....
 Magnolia Tripetala.....
 Golden Arborvitae.....
 Crataegus Arbuta.....
 Swedish Juniper.....
 Irish Juniper.....
 Heath-leaved Arborvitae.....
 Laurustinus, 6 to 12 in..... \$2 50 per doz.
 Laurustinus, 6 to 12 in..... 2 50 per doz.
 Making the growth of Oranges and Lemons a specialty, I have imported from all sources the best known varieties, and now offer five thousand Grafted Trees properly worked and twice transplanted at \$18 per dozen. Grafted oranges by the 100 or 1,000 at prices on application. The amateur in want of large PALMS, large AURICARIAS, large CAMELIAS and large TREE FERNS, a good stock on hand; also the usual large stock of fruit and ornamental trees.

BERNARD S. FOX,

San Jose, Cal.

THOS. MEHERIN, Agent, 516 Battery Street, San Francisco. 24v83m.

KELSEY'S NURSERIES,

OAKLAND, - - - - - CAL.

Established 1852.

More largely stocked this year than any previous year. Embracing all and every kind of

FRUIT, DECIDUOUS, ORNAMENTAL AND
FLOWERING TREES AND
PLANTS, ETC.

Send for Catalogue and Price List free on application.

W. F. KELSEY, Prop.

KING'S NURSERY,

Twenty-fifth St., bet. Telegraph & Broadway
OAKLAND, CAL.

Fruit, Shade and Evergreen Trees, Shrubs, Roses, Etc. Persons laying out new grounds would do well to call and examine our stock before purchasing elsewhere. A large stock of EUCALYPTUS, including BLUE GUM Pines and OYRESS from six inches to twelve feet high. Acacias in Variety; Young Stock for Nurserymen; Pines and Cypress; Three Thousand Magnolia Grandiflora from six inches to five feet high; Camellia Japonica; Gardenia Cape Jessamine; Araucarias in Variety, at Lowest Rates. Orders attended to. Address, M. KING, Nurseryman, 3v9-3m Oakland, Cal.

BELLE VIEW NURSERY

Telegraph Avenue, Oakland.

WE OFFER FOR SALE THE PRESENT SEASON A
LARGE ASSORTMENT OFOrnamental Trees and Shrubs
OF BEST TRIED VARIETIES.

Many fine specimens of good size can be seen on the grounds to select from. Choice collections (true to name) put up for those starting a garden.
 Street cars pass every fifteen minutes.

3v9-1f

S. NOLAN.

PEPPER'S NURSERIES.

(Established in 1858.) PETALUMA, CAL.
Green Houses and Tree Depot corner Washington and Liberty streets.

4 Green Houses. 3,000 feet of Glass. Fruit Trees a Specialty.

We offer for sale at lowest market rates a general assortment of Fruit and Shade trees, small Fruits, Vines etc. Evergreen trees and Shrubs in great variety. Green House, Conservatory and Bedding Plants, Roses, etc.

We are now ready, Nov. 1st, to fill orders for trees and plants. Catalogue and price-list furnished on application.

Address,

W. H. & G. B. PEPPER,

19v8-1f

Petaluma, Sonoma Co., Cal.

THOS. A. GAREY'S

Semi-Tropical Nurseries.

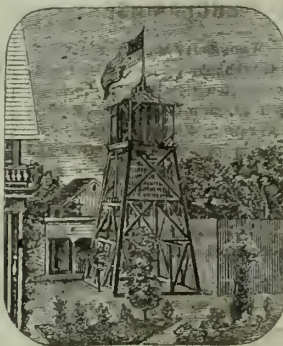
LOS ANGELES, CAL.

Forty varieties of the Citrus family of semi-tropical trees, including many rare and beautiful, as well as useful and profitable kinds.

Grafted and Budded Orange Trees a specialty. Trees packed to arrive in good order. Priced Catalogue sent free. Address me P. O. Box, 628, Los Angeles city, Cal.

2v8-6m

THOS. A. GAREY.



Parties who have been troubled with Windmills blowing to pieces and getting out of repair should by all means examine the

DEXTER,

THE ONLY PERMANENT MILL IN EXISTENCE.

It runs with lighter wind than any other; regulates itself in a gale; and has never been known to be injured by storms, although it has stood for six years on the Plains of Kansas, Nebraska, Missouri, Iowa and Illinois, where no other mills have been known to stand any length of time. All we ask is a full investigation of the DEXTER.

A. H. SOUTHWICK & CO.,

OFFICE—428 Sansome Street.....SAN FRANCISCO

4v8-cow-3m MANUFACTORY, FOOT OF BROADWAY, OAKLAND.

The attention of Wool Growers is continually invited to the

Thoroughbred Stock Bred and Kept on the
MERINO RANCH,

Situated at Niles, Alameda County, Cal., only five minutes walk from the station, junction of San Jose and C. P. R. R. Parties desiring to visit our ranch can leave San Francisco at 3 o'clock P. M., and have an hour at the ranch, returning on Overland train at 6 P. M. Or coming in morning, can return to city at 11 o'clock A. M. The proprietors make the

THOROUGHbred SPANISH MERINO SHEEP A SPECIALTY,

Believing them to be the BEST SHEEP IN THE WORLD, and are constantly receiving fresh importations from Addison County, Vermont.

Our flock are all Imported Sheep, and have no superiors in the United States. We always have on hand choice young RAMS and EWES, of all ages, for sale at Reasonable Prices, giving time, if required, to responsible parties. City Office—315 California Street, San Francisco.

10v7-cow

SEVERANCE & PEET,
Importers and Breeders of Spanish Merino Sheep.

SHINN'S NURSERIES,

NILES' JUNCTION.

Alameda County, - - - California.

The attention of persons intending to set out Trees is requested to the well grown and large variety offered for sale by the undersigned at the above Nurseries. An examination of our stock will satisfy any one of the quality, being all that can be asked, and when the low prices we have fixed are taken into consideration, we believe we are offering the very best inducements for buyers to deal with us. For full particulars we refer to our circular for the approaching season, which will be sent, as requested, on application to either of the undersigned.

SHINN & CO.,

-Proprietors.

Address James Shinn, Niles, Alameda County, Cal., or, Dr. J. W. Clark, 418 California street, San Francisco, Cal. 8v17-4mo.

J. ROCK'S NURSERIES,

San Jose, California.

We offer this season a Complete Stock of

FRUIT AND ORNAMENTAL TREES,

SMALL FRUITS AND PLANTS.

The attention of Dealers, Nurserymen and Planters is invited to our Large Stock of Fruit Trees. All Leading Market Varieties are grown in large quantities. To all those purchasing largely we will make a Liberal Discount. Catalogues FREE on application.

23-v8-1f

JOHN ROCK, San Jose, Cal

SUPERIOR FRUIT TREES

TRUE TO NAME.

A fine collection of Evergreen and Deciduous Trees. Australian Gum Trees in variety, by the hundred or thousand. Monterey Cypress in quantities and sizes to suit all. Orange and Lemon Trees at reduced prices. A general variety of Nursery stock.

Also, Rhubarb and Asparagus roots.

18v29-1f

T. CORLEY,

315 Washington Street, S. F.

80,000

AUSTRALIAN GUM TREES,

FOR SALE AT THE CELEBRATED

GUM TREE FOREST NURSERY,

Haywards, Alameda Co.

Address

JAMES T. STRATTON.

No. 306 Pine street, over Pacific Bank, S. F. 22v8-1f

ALMOND TREES.

35,000 Brier's Languedoc Almond Trees, one and two years old from the bud. This is the only Almond planted on a large scale, being hardy, late blooming, beautiful tree. It bears the second year from planting. The Almond is large and sweet with soft shell. Also, two year old Peach and English Walnut trees. Liberal terms to the trade and persons planting large orchards. Send orders to

W. W. BRIER,

21v9-8m

Centerville, Alameda Co., Cal.

Interesting Steam Boiler Experiment.

A correspondent of the *Scientific American* furnishes that journal with the following account of a late experiment made by him:

"With the intention of increasing the capacity of a steam boiler (horizontal, 42 inches in diameter and 18 feet long, with 32 tubes), I introduced some four inch tubes under the boiler, commencing just behind the bridge wall and running back the length of the boiler. These pipes had cast iron connections at the bends. I placed them eight inches below the bottom of the boiler, connected them at the back end of the boiler near the bottom, and attached the feed pump near the front, and fed with hot water. The first day they worked well and improved the boiler greatly in steaming capacity; but on the third day, just after starting up, with the first stroke of the pump, the cast iron end on the pipe where the feed pipe was connected burst with a loud report, and for a few seconds nothing but blue steam escaped, and finally water and steam. Thinking the trouble was in pumping in water so near the fire and bridge wall, I changed the connection, putting the feed pipe into the mud drum, and then letting the back connection stay as it was, making a series of circulating tubes. On firing up this time, I was alarmed by a succession of concussions or jars in the boiler that shook the walls; but by firing slowly, we got up steam without any accident. In an hour or two we noticed that the tubes nearest the fire and bridge wall were red hot, and blue steam was escaping from the joints of the connections on the ends of the tubes. We drew the fire and removed the tubes. We found a great improvement by the use of these tubes, and did not like to abandon the use of them. We are at a loss to account for the phenomenon of blue steam being where we expected nothing but water. What is our remedy?"

In answer to this query, the *Scientific American* says: "The trouble seems to have been that the pipes got so hot that they made steam faster than it could be carried off, the circulation being imperfect. It will probably be necessary to use larger pipes, or to discard the return bends, to make the present arrangement successful. The same trouble has occurred with some forms of sectional boilers, whose use has been abandoned on account of the poor circulation."

THE ARTIFICIAL VANILLA.—We alluded a few weeks since to the fact of the discovery that the odoriferous principle of the vanilla beans could be obtained. We are now enabled to give the substance of the English patent that has been issued for this to Wilhelm Harman, Ph.D., analytical chemist, Georgensgraben, Berlin, Germany. Take, first, coniferine; or, secondly, the sap of plants mentioned above which has been purified or liberated from alumina or other impurities; or, thirdly, an extract of all those parts of the just-mentioned plants containing coniferine; or, fourthly, the products obtained from coniferine by means of fermentation, putrefaction, or similar action; and treat one another with oxidizing agents or such agents of similar action, such as bi-chromate of potassium and sulphuric acid, or any other peroxide, oxide, acid or salt, which produce the same effect. The product of the reaction in all these cases is artificial vanilline, which has been proved to be identical in all physical and chemical properties with the aromatic principle obtained by the extraction, etc., of the natural vanilla beans.

GILDING AND SILVERING SILK THREAD.—In a process that has been patented in England, gold or silver leaf is rubbed on a stone with honey until reduced to a fine powder. The silk thread is soaked or boiled in a solution of chloride of zinc, and, after being washed, it is boiled in water with which the gold or silver powder has been mixed. When washed and dried it will be found coated with a fine layer of gold or silver, which may even be polished in the usual manner.

THE Stockton Woolen Mills, says the *Independent*, constitute one of the best managed and most useful industries in Stockton. Forty thousand dollars is invested in the business. There are 25 employes, to whom \$1,000 wages is paid per month. During 1874 the mills consumed 20,000 pounds of wool. The manufactured goods during the same period consisted of 75,000 yards of flannel and 7,500 pairs of blankets. Total value of manufactures, \$75,000.

VARNISH THAT WILL ADHERE TO METAL.—In order to make alcoholic varnish adhere more firmly to polished metallic surfaces, A. Morell adds one part of pure crystallized boric acid to two hundred parts of varnish. Thus prepared it adheres so firmly to the metal that it cannot be scratched off with the finger-nail; it appears, in fact, like a glaze. If more boric acid is added than above recommended, the varnish loses its intensity of color.

LEATHER FROM TRIPE.—A method has been patented in France for preparing leather from tripe and other animal membranes, the leather thus made to be used for glove making, etc.

ANTS, CRICKETS, and other insect annoyances may be driven from their nests and holes by sprinkling carbolic acid diluted with water around these places of resort.

THE *Popular Science Monthly* ridicules the idea that oysters shouldn't be eaten in the months that haven't an r in them as well as in other months.

Fruit, Shade and Ornamental

EVERGREEN TREES

—AND—

Plants for Sale.

At the old stand, corner Oregon and Battery streets, directly opposite Post Office, San Francisco.

I NOW OFFER FOR SALE

The Largest and Best Collection of Fruit, Shade and Evergreen Trees and Plants ever offered in this market, and at Reduced Prices.

Persons laying out new grounds would do well to call and examine our stock before purchasing elsewhere.

ORDERS FROM THE COUNTRY

Promptly attended to and packed with great care. A large stock of Cypress, Pines and Blue Gums for sale very low. Send for Price Catalogue.

Agent for B. S. Fox's Nurseries, San Jose. Address

THOMAS MEHERIN,

P. O. Box, 722,

516 Battery St., S. F.

Established A. D. 1852.



BAY NURSERY,

TELEGRAPH AVENUE, EAST SIDE.

Nursery Depot, corner 13th St. & Broadway.
OAKLAND, CAL.

JAMES HUTCHISON, - - - - - Proprietor

HOP ROOTS FOR SALE.

I have a lot of choice HOP ROOTS, and also healthy BLACKBERRY SETS for sale at LOWEST RATES. Orders may be addressed through DEWEY & Co., of the Rural Press, San Francisco; ROBT. WILLIAMSON, Capital Nurseries, Sacramento; or to me,

CALVERT T. BIRD,

24v8-3m

San Jose, Cal.

GRAPE VINES FOR SALE.

Roots and Cuttings of the best foreign varieties in lots to suit, at ten to twelve dollars for the former and three to five dollars for the latter. Thirty thousand roots W. Muscat, Alexandria, &c. Orders solicited early.

H. W. CRABB,

1v9-1f

Oakville, Napa Co., Cal.

PEACHES, APRICOTS and PLUMS are specialties at the Vacaville Nursery, Solano County, Cal. Alexander's Early, Thurber and Peento in bud, 30 cents each; Beatrice, Louise, Rivers' Early, Lord Palmerston Lady Palmerston, Prince of Wales, Princess of Wales, Picquet's Late, Lady Parham, Italian Dwarf, Golden Dwarf, Bloodleaved and many other varieties of new Peaches in bud, at 25 cents each; Trees of Alexander's Early, \$1 each. Beatrice, Plowden, Freemason and a general assortment of the leading varieties, 25 cents each; Apricots, Plums, Apples, Pears, Cherries, Almonds, Figs, Olives, Pomegranates and including most of the leading varieties of fruit for sale at low prices. D. E. Hough, Vacaville, Solano Co., Cal.

CO-OPERATIVE MARBLE WORKS.

JOHN DANIEL & CO.,

Manufacturers of and Dealers in

Monuments, Headstones, Tombs,

MANTEL PIECES, ETC.,

421 Pine street, between Montgomery and Kearny, SAN FRANCISCO.

21v2-1y

For the very best Photographs go to BRADLEY & RULOFSON'S GALLERY, with an "Elevator" 429 Montgomery street, San Francisco. 2v7-6m

Assembling in Machine Making.

The system of making the component parts of a machine or implement in distinct pieces of fixed shape and dimensions, so that corresponding parts are interchangeable, is known as "assembling." The term is, however, more strictly applicable to their fitting together, after being separately and accurately made, according to fixed patterns, and constantly compared by gauges and templates which test the dimensions.

This system of interchangeability of parts was first introduced into the French artillery service by General Gribeauval about 1765. He reduced the gun carriages to classes, and so arranged many of the parts that they could be applied indiscriminately to any carriage of the class for which they were made. The system was afterward extended into several European services, and into that of the United States.

The first firearm attempted to be made on this system was the breech-loader of John H. Hall, of North Yarmouth, Massachusetts, 1811; of which 10,000 were made for the United States, \$10,000 being voted the inventor in 1836, being at the rate of one dollar per gun. Some of them were captured in Fort Donelson, February 16, 1862. They were probably the first breech-loading military arms ever issued to troops.

The extent to which the system of gauges was carried with the Hall arm is not accurately known, but it is doubtless true that the principle was brought to a high state of system and accuracy by Col. Colt, of Connecticut, in the manufacture of his pistols. Among the most important of extensions of this principle has been the making of special machines to fashion particular parts, or even special portions of individual pieces, so that each separate part may be shaped by successive machines, and bored by others, issuing in the exact form required.

This plan requires large capital, and will not pay unless a great number of like articles be required, but has been extensively introduced into this country, and from hence into England, and to some extent on the continent of Europe. All the Government breech-loading fire-arms are thus made. The greater number of the military arms of Europe and Egypt are thus made in the United States for the various countries. The Snider gun, a modification of an American model, is made at the Enfield Arsenal, England, on special machines made for that purpose in duplicate at the Colt works, Hartford, Connecticut. Pratt & Whitney, of Hartford, are just completing for Germany a full set of special machines and gauges for the manufacture of the Mauser rifle, adopted by Prussia for the confederate German States.

The first watch made on this plan was the "American" watch, of Waltham, Massachusetts, the system extending down to the almost microscopic screws and other small parts. All the prominent sewing machines are so made; the same with Lamb's knitting machine, and probably others. Many kinds of agricultural implements, including plows, harrowers, threshers and wagons, are made of interchangeable parts. The system has been carried into locomotive building; about seven grades of engines, it is understood, are employed on the Pennsylvania Central railroad, corresponding parts of a given grade being precisely similar, so as to fit any engine of the class. This is the American system of "assembling."—*Harper's Magazine.*

THERMO-ELECTRICITY IN IRON SHIPS.—There is a curious point, says *Broad Arrow*, in connection with the deviation of the compass on board iron ships, which is now beginning to attract the attention of scientific men, and may therefore, perhaps, be new to some of our readers. It is now believed that some of the sudden and hitherto unaccountable changes in the deviation of the compasses of iron ships—which are often unsuspected until alleged as the only conceivable cause of the vessel running ashore—are the effects of an unequal and varying distribution of heat over the iron hull; for it is well known that electricity is generated in a metallic substance by heat applied in a certain way, and, in fact, there is a branch of electrical science called thermo-electricity, devoted to the investigation of phenomena of this kind. Sudden slight changes of compass deviation, not exceeding five degrees, have been noticed on board iron ships on the North American coast, and these are now attributed to changes in the hull, occasioned by the vessel passing from warm to cold water, and vice versa. The warm temperature of the gulf stream, taken in connection with the cold counter-current, is considered to be quite sufficient to account for many of the suspected compass errors on board iron ships.

ASTRONOMICAL.—The astronomical discoveries of 1874, apart from those which may have been made by observers of the transit of Venus, were few and comparatively unimportant. Six asteroids were discovered, two by American astronomers, and three by Palisa, at Pola, near Berlin. Of the four comets discovered in 1874, that of Coggia only, was especially interesting. The meteoric shower of November 14th entirely failed for 1874. According to the calculations of some astronomers, no further returns of this meteoric display in any considerable numbers can be expected till near the close of the century.

TO PRESERVE COLOR IN DRIED FLOWERS.—To preserve the natural color in dried flowers, lay them when fresh into alcohol for a few minutes—they will fade at first—but recover their color.

Seedsmen.

SEEDS. SEEDS.

Encourage home industry and make a saving of at least 30 per cent.

If you want Seed that you can depend upon as to variety and freshness, why not send your orders direct to the grower and make a saving of at least thirty per cent. on the prices of other seedsmen. Send for catalogue, free, post-paid, and compare with prices of other dealers. Just received,

Grasses, Clover, Alfalfa and Field Seeds, Fruit and Evergreen Trees, Shrubs, Flowering Shrubs, and Green-house Plants. Cabbage, Onion and Cauliflower Plants.

Large assortment of Bulbs from Holland. Address all orders or letters of inquiry, to

SEVIN VINCENT,

607 Sansome street, San Francisco, Cal

22v8-3m



My annual catalogue of vegetable and Flower Seed for 1875, will be ready by Jan. 1st for all who apply. Customers of last season need not write for it. In it will be found several valuable varieties of new vegetables introduced for the first time this season, having made new vegetables a specialty for many years. Growing over a hundred and fifty varieties on my several farms, I would particularly invite the patronage of market gardeners and all others who are especially desirous to have their seed pure and fresh, and of the very best strain. All seed sent out from my establishment are covered by three warrants as given in my catalogue.

JAMES J. H. GREGORY, Marblehead, Mass



I will send 12 Flowering Plants for One Dollar (your choice from 100 sorts), by MAIL OR EXPRESS. MY ILLUSTRATED CATALOGUE, describes the culture of Plants & Seeds, to customers free; others, 10c. Address, WM. E. BOWDITCH, 645 Warren st., Boston, Mass.

A GOOD GARDEN

Can not be had without GOOD SEED, and I have endeavored in every way to make mine THE BEST. MY GARDEN MANUAL, besides containing the most COMPLETE TREATISE on Hot-bed-sewing published, is FULL OF PRACTICAL HINTS and LABOR-SAVING METHODS, learned in many years' market-gardening. Sent for two stamps. J. B. ROOT, Seed-Grower, Rockford, Ill.

Agricultural Articles.

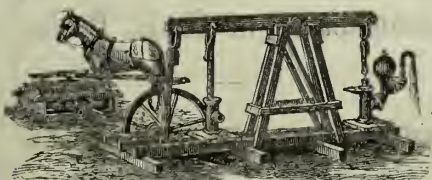
VINE AND FRUIT GROWERS,

TO RAISE LARGE CROPS

YOU MUST IRRIGATE.

To irrigate successfully, you must have the power that does not give out when the wind fails.

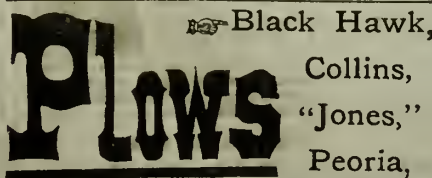
Laufkotter Bros. & Churchman's Horse-Power,



[PATENTED FEBRUARY 13TH, 1872.] Never fails to supply more water than four or five Windmills, even supposing you had all the wind you want. It is also suitable for running light machinery, such as Barley Grinders, Corn Shellers, Fanning Mills, Grain Separators, or for Sawing Wood. They are never failing, cannot get out of order, easily worked, substantial, and always give satisfaction wherever they have been used. One horse can easily work two 6-inch pumps, with a continuous flow of water. Force Pumps, from 3,000 to 10,000 gallons per hour. WINDMILLS or all kinds manufactured to order. Wells Bored, Windmills and Horse-Powers set in any part of the State, and repairing of all kinds done. Manufactured and for sale by

LAUFKOTTER BROS.,

77-2m-3m Cor. J and 10th Sts., Sacramento.



Of all kinds and sizes. The largest stock ever offered in California; all new and just received, at low prices. Also, Cultivators, Harrows, Seed-Sowers, etc. Sold by

TREADWELL & CO., San Francisco.

Send for Price List.

18v8-tf

THE TREADWELL SULKY



GANG PLOW.

Improved for 1874, with BLACK HAWK Plow Bottoms, is the best GANG PLOW in the world. It is Simple, Strong and Durable, and does its work effectually. Has high wheels, running both on unplowed land; iron axle, wrought iron beams, and is built nearly all of iron and steel. No farmer should neglect to see it before buying. Send for descriptive circular and price. We have also the "VICTOR GANG," with hard wood beams and heavy cast iron standards; price, \$75. Also the "GOLDEN STATE GANG," with all iron beams; price \$75. "PIEL'S GANG," improved; price \$50; old style, \$25. The largest and best stock of Plows, Harrows, Cultivators, Grain Drills, Seed Sowers, Farm Wagons, etc., in the country.

TREADWELL & CO.,

18v8-tf

San Francisco

MATTESSON & WILLIAMSON'S

AMERICAN CHIEF



GANG PLOW.

Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m

MATTESSON & WILLIAMSON,

Stockton, Cal.

C. OREGO.

A. O. BOWLEY.

GREGO & BOWLEY,

Importers and Manufacturers

—OF—

CARRIAGES and WAGONS,

No. 9 Merchant's Exchange,

CALIFORNIA STREET.....SAN FRANCISCO

Keep constantly on hand top and open Buggies, top and open Rockaways, Jump-seat Buggies, Track and Road Sulkies, Skeleton Wagons, Basket Phaetons of the very latest styles and finest workmanship.

We would call particular attention to our fine stock of light Road and Trotting Wagons, made to order by the following celebrated makers:

Charles S. Coffrey, Camden, New Jersey; Helfield & Jackson, Rahway, New Jersey; Gregg & Bow, Wilmington, Delaware; And the first-class makers, which we are prepared to sell on the most reasonable terms.

Also, a large assortment of single and double Harness, of the most celebrated makers:

O. Graham, New York; J. R. Hill, Concord; Pitkin & Thomas, Philadelphia.

Also, a full assortment of Dress and Light Blankets, Fur and Lap Robes, Whips, Halters, Surcingle, etc., at wholesale and retail.

GREGO & BOWLEY,

No. 9 Merchants' Exchange, California street,

24v5-3m

San Francisco.

Farmers and Threshers

WISHING TO HAVE

STRAW BURNING ENGINES

For next season must engage them soon, as most of those now building are already sold. Threshing Engines for Repairs should be sent in now. A number of Second-hand Engines—taken in exchange for "Straw Burners"—for sale cheap. For particulars and prices, address:

H. W. RICE, Haywood, Alameda County.

Notice—To Tule Land Owners.

I am manufacturing a Gang Plow specially adapted to ploughing Tule Lands. Address

Vallejo Foundry, J. L. Heald, Prop.,

18v20-3m

VALLEJO, CAL

WANTED.

SWEET CLOVER, (*Melilotus Alba*), about 500 pounds cured like hay. Any one having the above article to the amount of 500 pounds, more or less, will please address the subscriber, who will purchase at remunerative rates. Address

A. J. HATCH,

2v9-1m

Reno, Nev.

AMERICAN SWEET CHESTNUT TREES.

Thirty Thousand American Sweet Chestnut Trees for sale cheap, in lots to suit, at Room 32 Merchants' Exchange, San Francisco, where samples may be seen. The trees are two years old, and in prime order. Will be delivered either in this city, Oakland or Sacramento. These trees are valuable for nuts, timber, shade trees or lawn trees; and are preferred by many to all of the foreign varieties.

Orders Wanted at the National Employment office, 608 Market street, room 9: office crowded daily with good men and women, seeking employment; particular attention paid to country orders.

A. BRANDT & CO., Prop's

Miscellaneous Notices.

POISON! POISON!

WAKELEE'S PATENTED Granulated Squirrel Exterminator.

A NEW AND MOST DESTRUCTIVE POISON FOR THE WORST PEST OF CALIFORNIA.

For years the farmers of the Pacific Coast have been spending money in experimenting to find a safe, cheap and efficient way of ridding their grain fields of their worst enemy, THE SQUIRRELS, which destroy Millions of Dollars' worth of grain every year; and unless a strong and combined effort is made to kill them off, they will become more numerous every year.

Wakelee's Granulated Squirrel Exterminator

Is just the thing the farmers of California have been looking for. It is SURE DEATH. One or two grains of it will kill a Squirrel so quick that if it is five feet from his hole it dies before it gets there. The Poison is put up dry and in granular form, and easily handled; in one pound tins at \$1 per pound. It goes a great way, as 10 to 15 grains of it are sufficient to place at each hole. Also successfully used for killing Gophers and Rats. It has been thoroughly tested in different parts of the country, and gave universal satisfaction. It is kept and sold by druggists and dealers generally through the country. The following are some of my testimonials, viz:

SANTA OLARA, April 29th, 1874.

H. P. WAKELEE, Esq.—Your Squirrel Exterminator was used according to your directions, on my *Quito Farm* with excellent success, and in my estimation is just the thing the farmers want to kill their Squirrels.

J. R. ARGUELLO.

SAN LEANDRO, Cal., April 3d, 1874.

H. P. WAKELEE, Esq.—Dear Sir: I have given your Squirrel Exterminator a fair trial and find it to be an economical and very destructive preparation, and I can safely recommend it to our farmers. Yours,

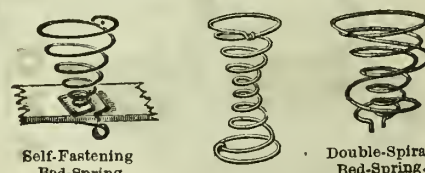
J. M. ESTUDILLO.

DOUGHERTY STATION, Alameda Co., Cal. MR. H. P. WAKELEE, San Francisco: I have used your Squirrel Poison and found it to be just what you claim for it. It is sure death. Yours,

O. M. DOUGHERTY.

H. P. WAKELEE, Druggist,

Cor. Montgomery and Bush streets, S. F.



Self-Fastening

Bed-Spring.

Double-Spiral

Bed-Spring.

We manufacture all sizes of BED and FURNITURE SPRINGS, from No. 7 to the smallest Pillow Spring; also, the Double Spiral Spring, which is the most durable Bed Spring in use. It is adapted to upholstered or skeleton beds. We have the sole right in this State to make the celebrated Obermann Self-Fastening Bed Spring. Any man can make his own spring bed with them. They are particularly adapted to Farmers' and Miners' use. Send for Circulars and Price List to

WARNER & SILSBY,

14v28-60w-bd-3m 147 New Montgomery Street, S. F.

THE CELEBRATED

H. H. H.

HORSE MEDICINE

IS STILL AHEAD OF ALL OTHERS.

The Wholesale Druggists of San Francisco, give evidence of its appreciation throughout the State, by and rapidly increasing orders. We pledge it a cure for SPAVINS, WIND GALLS,

SWEENY, SCRATCHES,

LAME AND STIFF JOINTS,

CALLONS, LUMPS,

AND ALL BLEMISHES,

SPRAINS OR BRUISES.

It is a household blessing and no family should be without a bottle in the house. For sale everywhere.

WILLIAMS & MOORE, Prop's.,

25v8-6m

Stockton, Cal.

THE ALDEN

Fruit Preserving Company

OF CALIFORNIA,

Is now prepared to sell rights and furnish the necessary machinery for using the "ALDEN PROCESS," acknowledged to be the best method known for preserving Fruits, Vegetables, Meats, etc.

For full particulars call at the company's

Office, 426 Montgomery St., S. F.

G. W. DETZLER, President.

W. M. WHERRY, Vice-President.

FRANK PYLE, Sec'y and Sup't.

BANK OF CALIFORNIA, Treasurer.

11v7-6m

H. K. OUMMINGS,

1858.

H. H. BALSTON,

1875.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission House,

ESTABLISHED 1858.

No. 424 Battery street, southeast corner of Washington, San Francisco.

Our business being exclusively Commission, we have no interests that will conflict with those of the producer.

4v23-1v

Hooper's South End Grain Warehouse.

Japan and Townsend Streets.

SAN FRANCISCO, July, 1874.

I beg to inform you I have leased the above first-class Fire-Proof Brick Warehouse, now being erected by Geo. F. Hooper, Esq., and will be ready to receive storage on the 1st of August. This warehouse offers superior inducements to parties desiring to store grain and flour, as it is situated on the Water Front, and on the line of the O. P. R. R. and S. P. R. R. It is well ventilated, rat proof, and combines all the modern advantages and improvements.

Yours respectfully, JOHN JENNINGS.

Advances and insurance effected at the lowest rates. Storage taken at lowest current rates.

4v8-ft

OWENS, LANE & DYER MACHINE COMPANY.

Manufacturers of the following Specialties:

**Portable & Stationary Engines,
CIRCULAR SAW MILLS,**

OF ANY CAPACITY REQUIRED.

Also, the Celebrated

STEAM THRESHER, "California Chief"

Have recently added to their lists, the

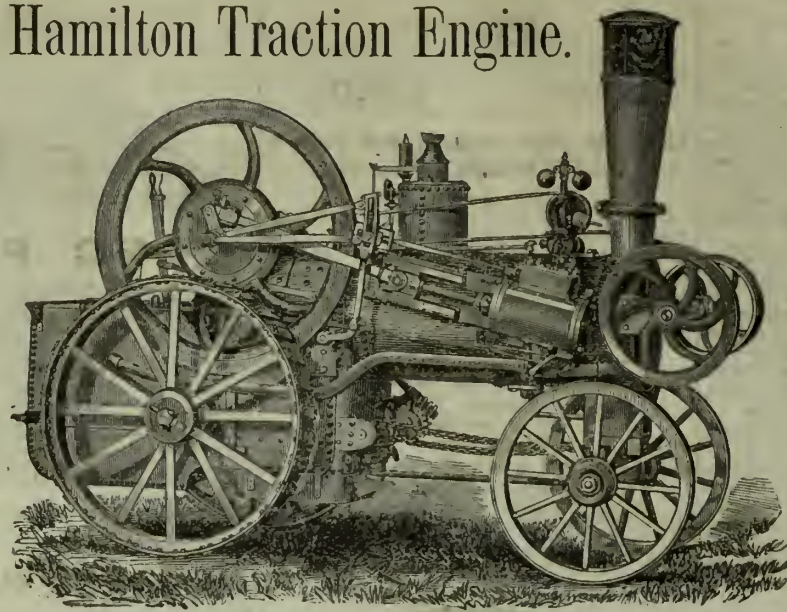
HAMILTON TRACTION ENGINE.

WORKS IN

MACHINERY DEPOT,

HAMILTON, O. ST. LOUIS, MO.

Hamilton Traction Engine.



OUR TRACTION ENGINE

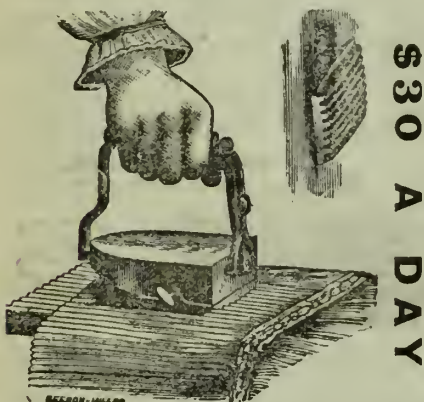
Is no mere novelty or uncertain experiment, but is well designed, well constructed and thoroughly practical in all its operations. It is strong and substantial in all its parts, reliable and durable in action, and capable of any service for which the best of such Engines are adapted.

In its design and construction we have taken as models the best of the English engines of this class, and with modifications and improvements suggested by an experience in the construction and operation of Portable Engines, and a knowledge of the uses that will be required of them, and the conditions to which they will be subjected in this country. We thereby advertise that we are prepared to furnish a ROAD AND FIELD LOCOMOTIVE better adapted for such service and in many respects superior to any thing yet produced in this line.

For full description, prices, &c. of these or any other machinery in our line we invite parties wishing to purchase such machinery, to call and see or address us at our place of business in

HAMILTON, O., or ST. LOUIS, MO.,

OWENS, LANE & DYER, MACHINE CO



AND EXPENSES.

**Men and Women Wanted
TO SELL OUR
KING IRON.**

Four Complete Irons in one. Circulars and terms sent free. Address **S. M. WOODS,** No. 205 Sansome Street, S. F. State, County and Town rights for sale.

M. FALLON,

Cor. Seventh & Oak sts.,

OAKLAND, CAL.

Light & Dark Brahmas, Buff, White and Partridge Cochins, Spangled, Golden and Silver Polish, Spangled, Golden and Silver Hamburgs, Pure White-faced Black Spanish, White and Brown Leghorns, Silver Grey Dorkings, Houdans, Silkies, Black-Red Games, Bronze Turkeys, Rouen and Aylesbury Ducks.

All from Premium Stock of Best Strains

Fowls of above varieties for sale; also, Chicks in their season. Eggs packed with care and sent in rotation as orders are received. 1v9-16p-tf

Bronze Turkeys

12 Gobblers from 8 to 20 months old, 22 to 40 lbs each, for sale now. Hens 14 to 18 lbs.



Emden Geese

40 to 50 pounds per pair at maturity.

BLACK CAYUGA DUCKS,

Games, Brahmas, Leghorns, Houdans, Bantams, etc.

Eggs, fresh, pure, true to name; well-packed so as to hatch after arrival.

For Illustrated Circular and Price-List, address

M. EYRE, Napa, Cal.

FERRETS.

RABBITS.

PIGEONS.

Please state where you saw this advertisement.

F. LUDEMANN,

RON. MICHELSEN.

PACIFIC NURSERY,

Baker St., Between Lombard and Chestnut,

San Francisco, Cal.

P. O. Box 475.

We offer this Season a Large and Complete Selection of Well Grown

EVERGREEN AND DECIDUOUS TREES AND SHRUBS, FLOWERING AND ORNAMENTAL PLANTS

At very reasonable Prices. Our Descriptive Catalogue of Evergreen and Deciduous Trees and Shrubs, and our Wholesale Trade List (For Dealers and Nurserymen) will be sent on application. All Orders promptly filled. **F. LUDEMANN & CO.**

TO FARMERS AND GARDENERS.

We have in stock a full line of Pruning Tools of the following celebrated makers:

SINGLE SHEARS—Ditmar's, Berguer's, Hilger's. **DOUBLE SHEARS, OR LIMB CUTTERS**—McElhaney's, Red Jacket.

POLE PRUNING SHEARS, for high limbs, White's patent, mounted ready for use.

ENGLISH GARDEN AND LAWN SHEARS, POLE AND HAND PRUNING SAWS.

DITMAR'S PRUNING KNIVES, &c.

DUNHAM, CARRIGAN, & CO.,

Successors to

Conroy, O'Connor & Co.,

San Francisco.

4v9-6m-16p-cow.

1874. GUIDE AND CATALOGUE 1875. FREE.

To persons contemplating purchasing I will send my ILLUSTRATED, DESCRIPTIVE CATALOGUE and GUIDE to the VEGETABLE and FLOWER GARDEN WITHOUT CHARGE. It contains the most extensive and valuable list of



Flowering Bulbs, Roots and Plants, Semi-Tropical Trees, Ornamental Shrubs, Fruit and Shade Trees, etc., ever offered in this market. It tells how to successfully grow the Australian Blue Gum, the Monterey Cypress, Pine, etc., and the proper method of Cultivating Tobacco on this Coast.

My stock of seeds is in part my own raising and in part direct importations from the best European and Eastern growers, and is unsurpassed in all respects by that offered by any other establishment. 100,000 Australian Blue Gums and Monterey Cypress in boxes at from \$30 to \$50 per 1,000, raised at my own Nursery at San Rafael.

R. J. TRUMBULL,

Grower, Importer, Wholesale and Retail Dealer in Seeds, Shrubs, Trees, etc.

20v8-6m-16p

427 Sansome street, S. F.

HEALD'S BUSINESS COLLEGE,

No. 24 Post Street, San Francisco.

The largest and best Business College in America. Its teachers are competent and experienced. Its pupils are from the best class of young men in the State. It is under the very best discipline. Its scholarships are good in the THIRTY-SIX Bryant & Stratton Colleges. It employs four of the best penmen in the State. It has the largest rooms, the largest attendance, and the most complete system of business training of any commercial school in the country.

For information, call at the office, 24 Post street, or address, for circulars,

E. P. HEALD,

President Business College, San Francisco.

3v9-16-tf

FOR SALE.

In the Riverside, New England and Santa Ana Colonies, in the valley of the Santa Ana river, San Bernardino county, California, twenty thousand (20,000) acres of clean, rich, level, valley land, with an abundance of water for irrigation. There is no better land in the State for the orange and all other semi-tropical fruits, and no finer climate in the world. Inquire of W. T. SAYWARD, 420 Montgomery street, San Francisco; S. C. EVANS, Fort Wayne, Indiana; C. L. HUTCHINSON, 314 California street, San Francisco; L. UPSON, General Agent, Riverside, San Bernardino county, Cal.

No AGENTS are authorized to receive subscriptions for this paper at less than our advertised rates.

J. D. Yost, San Francisco. H. S. CROCKER, Sacramento

H. S. CROCKER & CO.,

IMPORTING STATIONERS

—AND—

General Job Printers.

401 and 403 Sansome St., S. F.

PARTICULAR ATTENTION PAID TO

Manufacture of Blank Books.

BANK AND INSURANCE WORK

A SPECIALTY.

23v8-3m-16p

OAKLAND POULTRY YARDS

Cor. 16th & Castro Streets, Oakland, Cal.

A choice selection of Brahmas, Cochins, Houdans, Games, Leghorns, Bantams, Bronze Turkeys, and Ducks constantly on hand and for sale at reasonable rates. Eggs guaranteed to be fresh, true to name and to reach customers safely. Also two Imported Bronze Gobblers for sale; weight 38lbs; price \$75 each. Send for Illustrated Circular containing a full description of all the best known and most profitable fowls in the world, to

GEO. B. BAYLEY,

P. O. Box 650, San Francisco.

John Saul's Catalogue of New, Rare and Beautiful Plants for spring of 1875 will be ready in February, with colored plate. Free to all my customers. To others, 25 cents. A plain copy to all applicants free. Washington, D. C.

NEW CROP OF

BLUE GUM SEED.

GRASS AND CLOVER SEEDS.

FLOWER AND VEGETABLE SEEDS.

TREE AND FRUIT SEEDS.

OF EVERY DESIRABLE VARIETY AND OF THE BEST QUALITY; OFFERED AT WHOLE-SALE OR RETAIL, BY

GEO. F. SILVESTER, SEEDSMAN,

No. 317 Washington Street,

24v8 tf

SAN FRANCISCO

Metropolitan Nurseries,

Lombard Street,

Between Polk & Larkin Streets, at the Terminals of the Clay Street Hill Railroad.

MILLER & SIEVERS, PROPRIETORS.

FLORAL AND SEED DEPOT,

NO. 27 POST STREET, San Francisco.

Our stock of plants, comprising a most selected collection of Flowering and Ornamental Plants for the garden and the conservatory.

ROSES, over 200 varieties.

PINKS, 100 varieties.

DAHLIAS, 60 varieties.

PALMS, 40 varieties.

FERNS, 100 varieties.

ORANGES & LEMONS, 30 varieties.

Our assortment of Flowering Bulbs is complete. Always on hand a choice and fresh lot of

TREE, SHRUB and FLOWER SEEDS.

CUT FLOWERS, BOUQUETS, FUNERAL WREATHS and FLORAL DECORATIONS furnished at short notice and on reasonable terms.

Orders from any part of the country promptly filled.

Eucalyptus globules, (Blue Gum) seed, fresh invoice \$15.00 per pound.

New catalogue now ready, gratis on application.

SEEDS. PLANTS. OF EVERY VARIETY.

Fresh and reliable, such as experience and care only can select.

GRASS AND CLOVER SEEDS, KENTUCKY BLUE GRASS, HUNGARIAN, ORCHARD, ITALIAN RYE, RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL, CHOICE CALIFORNIA ALFALFA, WHITE CLOVER, RED CLOVER, Etc.

Also, RAMIE, JUTE AND TOBACCO SEEDS; together with a fine and complete collection of TREE SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGANTEA, PINUS INSIGNIS, Etc.

For Sale, wholesale or retail, by

B. F. WELLINGTON,

(Successor to E. E. Moore).

425 Washington St., San Francisco.

22v7-1y

CORRESPONDENCE.

[The RURAL PRESS, in opening the columns of this department to its correspondents, does not desire to lay before its readers anything which is not in keeping with its character and position as an agricultural and family paper. Facts are always thankfully received; and suggestions and matters of opinion on subjects connected with agriculture are also acceptable; though correspondents are to be understood as speaking for themselves and not for the PRESS.]

The "Rural Press" in Washington Territory.

EDITORS PRESS:—When your general agent was heresometime last spring (I think it was) he persuaded me to take the RURAL PRESS; I had inquired for some other paper, but he pressed the claims of the RURAL and the title was, to me, so suggestive of years gone by that I at once enrolled myself as a subscriber, and now, as Monday after Monday rolls round I visit my mail box in pleasing anticipation of spending an hour in cosy comfort with the last issue, and I hope to goodness that the new subscribers gained by W. S. R. will be few and far between who desire more "general news."

I take yours to be an agricultural paper and that is its great charm for a certain class, and its very name suggests the class I mean. I take a dozen papers but my real enjoyment is in the RURAL and I'll pass a few moments in telling you why:

In the first place I live in a country where there is not a tree for many long miles; where no fruit grows; where there is no vegetation but the prairie grass; and where everything we need to eat, wear and even burn, has to be brought by the iron horse. So it is refreshing to read something devoted to green things, and to read a while in "Kirtland Pear" articles, alfalfa meadows, poultry and farm yard (fancy us raising poultry on corn at 3 cents per pound) vineyards and orange groves. Imagine me reading last Monday about grass being knee-high and pear trees in bloom, at a time when our thermometer stood 34° below zero; but so it was and yet, sir, I am quite content to take things as they are here, and only leave the dismal scene an hour a week, and tread the flowery paths of "the RURAL." So let me once more enter a violent protest against one more column's devotion to "general news." W. S. R. to the contrary notwithstanding.

Then my RURAL has another virtue. The market price of all these green luxuries is found there and that page has peculiar attractions for me, as my business is closely associated with it. I ship from your State nearly every month in the year, commencing with fresh salmon and strawberries, cauliflower celery and other table vegetables, and on to June for apples and the full line of delicious fruit; finishing off with late keeping pears. I have been engaged in this business since '68 and it has been increasing till last season I shipped from your fertile valleys eighteen car-loads of assorted produce by freight besides thousands of pounds more by express.

How is that for a little town of 2,000 people, and then consider there is another upper pressing hard on my business. I don't know whether you consider all this rigamafole worth printing or not, but, any way, it is great satisfaction to me to write it and I could go on for an hour but forbear, though sometime I mean to talk to some of your farmers who grow wheat for shipping and give them a few hints that may be profitable.

Now I will bid you good day, with a promise to call and see you some fine day, for I most decidedly intend visiting your flowery land soon, particularly if by virtue of patronage of the railroad I can get a pass. I think I ought to have one.

S. H. W.

Cheyenne, W. T., January 15th 1875.
[We hope our correspondent will send in those suggestions to "the farmers who grow fruits." He will find them willing and apt learners; and we also hope that he will not fail to give us a call when he visits this "flowery land."—EDITORS PRESS.]

From Borden, Fresno County.

EDITORS PRESS:—I am happy to say that the prospects with us at present are more flattering than they were a week ago. Then the general appearance was rather discouraging to all; but some were affected worse than others. Many of the wool growers began moving their flocks to the foothills, while some of our farmers thought of looking after some lowlands where water could be had for irrigation to raise spuds, onions and other edibles, as a last resort to sustain life. Each, however, advancing different ideas as each day passed by without rain. But the giver of all good has kindly ordered it different; and sent an abundant supply of rain, at least for the present. The rainfall since the 14th inst., is over three inches, and is still raining. The effect of the rain on the growing grain and grass is delightful. In short, smiles have succeeded frowns, and happy greetings prevail with an upward tendency.

FARMER.

Borden, Fresno county, Jan 19, 1875.

Rain Fall at St. Helena.

EDITORS PRESS:—Last November you published a request that your friends would send you statistics of the rain fall in their respective localities. It is unfortunate for your readers that you have not met with a more general compliance. The question of rain on our coast is a vital one. It is of great importance to the producer to learn how much water is indispensable to the production of a good crop in the different varieties of soil; important to emigrants and strangers to know what kind of land they can safely cultivate; important to capitalists to learn where investments in irrigating enterprises will pay, and important to the investigator of natural laws to gather specific facts in climatology on which to exercise his "causality."

The very general and vague reports by telegraph are unsatisfactory to all who have been observant of the immense difference in the annual amount of precipitation even in contiguous neighborhoods. For example, the rain fall at San Jose, up to December '74, was only 4.24 inches, while nearly 10 inches had fallen just over the Coast Range at Santa Cruz and 16 inches in this part of Napa Valley, and our telegraph dispatches received through the daily papers to-day indicate that this inequality in the distribution of pluvial blessings extends all over the State. Nevada, away up in the clouds, scoring the highest figure, (24.96) while our little valley, nestling between high ranges of mountains, and resting its rich, alluvial surface almost on the bosom of the tide, seems to be next in favor with the rain king. Alas! the grand and immutable law by virtue of which the atmosphere is surcharged with humidity evaporated mainly from old ocean, and distributed over the thirsty earth, apparently with capricious partiality, but really in accordance with those beautiful meteorological laws with which Lieut. Maury has familiarized the readers of his "Geography of the Sea," while in lovely Santa Clara valley this most indispensable boon to the husbandman has been doled out with seemingly a grudging parsimony.

Continous lovely weather, beautiful as elysium when we could sing, without poetic license. "December as pleasant as May" followed the heavy rains of the last week of November; till on the 11th of January, '75 in the morning, two rainbows spanned the northern heavens and on the 12th a parhelion almost as bright as old Sol himself, at 11 A. M., occupied the place he had left an hour earlier, a phenomenon I never before witnessed so near the meridian by 30°.

Of course this mock sun and the rainbows meant something, and on the night of the 13th the "windows of heaven" were again opened, and 3½ inches of water came down in 24 hours, which set the plows again in motion, after having been for a week or more badly discouraged, but not till they had prepared the ground for an unusual amount of seeding. All this day (18th) they have been stopp'd by moderate raining till since dark, the windows are thrown very widely open, and, assisted by an occasional clap of thunder, it not only rains but it pours.

The facetious Jack Downing, when the intense cold had sunk the mercury to the bulb, said the weather would have been a great deal colder if his thermometer had been longer, and if it continues to rain at this rate all night I shall have occasion to say that if my guage had been deeper it would have rained more.

January 19th, 6 o'clock, A. M.—the guage did not "slop over." The storm king exhausted his energy before 11 o'clock—a truce—till now we have a renewal of the war of the elements. This time instead of heaven's artillery being brought to bear, we have a flood of rain riding in a roaring, screeching, howling whirlwind. But who or what so "directs the storm" as to give us much, Nevada more, the intermediate broad plains, San Jose and other portions of the State, none, or next to none, I will leave to Professor Maury, and the scientists who manage the Signal Service to determine. Twelve o'clock, M. A northwester has blown the clouds away—mercury 58°, two or three degrees higher than during the rains, exactly 4½ inches in the guage, making an aggregate here, 15 miles south of the peak of St. Helena mountain, of 23¾ inches of rain for the season to date.

G. B. CRANE.

St. Helena, Cal., January 19, 1875.

From Walnut Creek.

EDITORS PRESS:—A few notes concerning agricultural matters may not be out of place. The would-be prophets now begin to hold their peace, owing to the copious and welcome showers of rain that have been coming down ever since the 14th inst., and now some of them are howling "too much rain—flood! flood!" I suppose those are what are termed "chronic croakers." The farmers are through seeding, and with a few days of warm sunshine, which we may reasonably expect, the prospects will be better for an abundant yield the coming year than we have had for some time. The acreage sown is much larger than that of former years.

The farmers are taking a great interest in carrying out the squirrel law, having for Inspector one of the signers of the bill, Hon. A.

W. Hammitte. A suggestion here presents itself. It is that every Inspector will request his district to come out in mass, say Mondays and Thursdays of each week, as unity of action will accomplish more than individual action can. The reason for setting two days in the week is that they (the squirrels) will more readily eat the poison. Second, that the time of putting out shall be early in the morning or late in the evening; as they will, on coming out for their morning meal, take the first food that offers. Of course the means used are various. In this valley we use atrychine and phosphorus, as we have found no means better as yet. I think farmers would do well to interchange opinions with regard to this extermination, not only of those animals, but of all obnoxious plants; such as Chili thistle (by some named Tucalota), May weed, etc. My plan is thorough and deep cultivation and sowing immediately after plowing. I think one of the greatest causes of so much foul land in our rich valleys may be attributed to thin sowing, and not the header or harvester, as many suppose. Our valley farmers have been considerably excited this winter concerning the railroad from Livermore to Martinez, but the excitement has somewhat subsided. What we do want is a railroad from Livermore, via Walnut Creek, to Oakland, and we must have it in time. Our Grange still meets semi-monthly, with a good average attendance, membership increasing, and all alive to the work. May it still continue.

The RURAL PRESS is a welcome and punctual visitor, aiding us to pass our evenings pleasantly in looking over the accounts of the progress of our brother farmers. Yours fraternally,

W. L. H.

Walnut Creek, Jan. 19, 1875.

From San Bernardino

EDITORS PRESS:—Having traveled and loitered for more than a year in Southern California with the double object of regaining my health and seeking a futuro home in a desirable locality, I think that if your home-hunting correspondent should chance to turn south through the mountain passes, on emerging from the Cahone Pass into this valley, he might find ample employment for his descriptive powers. It was to some extent utilized by a settlement of Mormons more than 25 years ago, who laid out the present town on the liberal plan that characterizes the city of Great Salt Lake; but at the call of their Prophet in the year 1857, they sold out their possessions and hastened to join their brotherhood in Utah, to defend the Mecca of the Latter Day Saints from the threatened aggressions of a Federal army, a few families remaining, who are now numbered among the more thrifty portion of the rural population.

These, with the native Californian and domesticated Indian, and a few hundred American families, formed some few years past the nucleus of civil society, upon which the present has grown to respectable proportions. Churches and schools are numerous. The town numbers 3,500 souls, the county from ten to twelve thousand, with an assessment roll of nearly two millions. A new and elegant brick court house is in rapid course of construction; numerous new buildings going up, some of a substantial character, others of a cheaper class. The town at present covers an extensive area of rich fertile land, supplied on every side with running streams. At least 200 small bore artesian wells are flowing, offering convenient irrigation for garden and family use. The mountains surrounding the sides of this valley are considered by practical geologists a guaranty of success in procuring upon a larger scale this necessary article for irrigation purposes, in any and all parts of the valley, three-fourths of which remain uncultivated. The prospect of a speedy extension of the railroad from Spadra to this place, which has heretofore been considered a smart town outside the pale of civilization, with the advantage of rapid communication to Los Angeles and the sea coast at Wilmington, bringing it within three or four hours' run to tide water, as this is the nearest apply point to the numerous rich mines just now being developed, will stimulate the present population to greater exertions, and add a large increase by steady and rapid immigration to our present active population.

The most of this rich and delightful valley was monopolized by two large Mexican land grants. On one of these, the town is situated. The other, lying north of the town rancho, has just now been opened for sale and occupancy—whose southern boundary approaches to within a little more than two miles from the court house. Here, some eight or ten thousand acres, reaching to the foot of the mountains, with clear title (U. S. patent), may be purchased in small or large quantities to suit, at from five to ten dollars per acre. All of which is surrounded by many advantages. First—By a thrifty town near by on the south. Second—By an inexhaustible supply of fine timber on the mountains to the north, with five steam saw mills in constant operation, and three giant mills in the valley propelled by water power. On the west, by an open plane to the sea coast. On the northeast, by the great depression in the Sierra Nevada mountains, known as the great San Geronimo Pass, in the direction to

Central Arizona; and on the northwest by the Cahone Pass, through which the road leading to Prescott passes. Through this latter pass, the roads being level and firm, some hundreds of wagons are running to and from Panamint and Holcomb valley mines. Home-hunters, in a genial, healthy climate, where all the cereals and esculents succeed, and where all the semi-tropical as well as temperate fruits grow to perfection; the home of the grape, also, with cold and hot springs issuing from the mountains, and running through and over these lands, offered at low figures, on examination cannot fail to suit themselves.

I leave a description of the gold mountain, near Holcomb valley, and the mountain of rich silver deposit at Panamint, as well as many others, to those who have visited them.

F. S. D.

San Bernardino, Jan. 6, 1875.

From Visalia.

EDITORS PRESS:—Until last Thursday there had been no rain here for a long time, and apprehensions of a dry season were becoming quite general, and were generally quite serious. One said that such a season was unknown; that no rain in December was unprecedented. Another that the winter of 1864 was precisely like it—that its days were warm and clear, and its nights yielded twenty-six frosts in succession. Sheep range was getting scarce in the valleys, and in hopes of getting better fare, the cattle had sought the foot-hills. Stock men in imagination already contemplated their herds reduced to skeletons and half their present numbers. The doctors were wondering what sort of fare they would be able to secure for a year's practicing, as so many men habitually live, entirely upon trust. The printer knew that nobody would pay for his paper, and the merchants who make more money than anybody else in the country, were the most disconsolate class in the community. Men met each other upon the street and received no smiles, but took them in generous quantities behind the screens to allay their anxiety. The better classes even began to distrust, and there was a fight or two over in Chinatown. I have known uneasiness caused by dry weather, though never anything so nearly approaching a panic.

But the scene is changed. He who commanded, and the rains were held fast, has moved upon the face of the deep again. The windows of heaven have been opened, and so great a blessing poured out that the earth cannot contain it all, and it consequently seeks the sea in greatly enlarged streams. Now for the results: Smiles are more common, and less secret. Some in the excess of their great gratitude distribute them to whomsoever they may meet from "original packages put up in Kentucky." The stock men are jubilant, and it is said that one, who had two hundred tons of hay that he wanted to sell, but was obliged to give to his sheep, sat up all night of Thursday to listen to the music of the falling rain.

And, by the way, the rain does fall beautifully in this valley; seldom in such heavy showers pour down and pelt unsheltered beasts and men in such a merciless manner, back in the States. During the last winter, I recall but one really driving and furious rain storm. The process of condensation frequently beginning in the night and stopping before noon next day, seems here to be more slow and uniform than in other places, and light and steady rains are the result. And these, especially commencing on Thursday night and still continuing, are of that sort, and are most welcome. I have seldom seen more joy manifested by a whole community. The Grangers contemplate starting their six-horse plows again, and expect to make good crops. The editor hopes for a new subscriber and the parson a fee, since "all goes merrily as a marriage bell."

Yours very truly, O. B. J.

Visalia, January 19, 1875.

ASTRONOMICAL SCIENCE.—So stupendous are the facts, and so bewildering are the teachings of astronomical science that it is probable but few of its statements and deductions would be believed by the masses of the community, were it not for the ocular evidence that transits and eclipses take place precisely, to the very minute, as they are calculated and predicted. These facts afford such positive demonstrations of the accuracy of astronomical measurements and researches, that all cavil and doubts have to be set aside, and the uneducated world is now compelled to acknowledge as the simple operation of the immutable laws of nature, what for countless ages had been regarded as indications of an offended deity.

THE supervisors of San Diego county have appointed three road viewers to go over the road from Banner to Los Palms and report the probable cost of opening the road to intersect the San Bernardino road to Ehrenberg. This route, it is claimed, will be twenty-five miles nearer from the Colorado river to San Diego than the present traveled road by way of San Bernardino.

HOP PRUNING.—The hop growers of Ukiah, Mendocino county, have commenced pruning. Roots are worth \$5 to \$7 per bushel, and not enough to supply the demand. Our friends in this locality acknowledge the receipt of their share of rain; but the weather, they say, still continues cold. No reports of stock suffering.

The Unity of the Universe.

The Stoics delighted to dwell on the unity of the universe, and pointed out its perfect harmony. They had an anticipative view of the doctrine that heat will at last absorb all things into itself, out of which a new world will issue. The atomic theory was adopted from Democritus by the Epicureans, and was wrought into a gorgeous form by the Latin poet Lucretius. Neither Democritus or Epicurus was a professed atheist; on the contrary, both held that the gods made themselves known to man by images or effluences from heaven. But Lucretius propounds his theory to deliver men from all belief in the gods and superstitious fears, and represents death as the cessation of existence. It is instructive to observe what a run there is in the present day after Lucretius, both by classicists and physicists. He is declared to be the greatest of the Latin poets, and placed above Virgil and Horace. His arguments and his rich descriptions are quoted, and students have to wade through the mantled pool of his crotchets to pluck his flowers. It is curious to notice how a philosophy seeks for and creates a poetry suited to it. The philosophy of Epicurus, so prevalent among the Romans, culminated in "De Rerum Natura;" it has to be added, in the licentious pictures on the walls of Pompeii and Herculaneum. The philosophy of Locke and Bolingbroke found appropriate verses in Pope. The subjective philosophy of Kant came forth in the grand German poetry of the beginning of this century. The physical philosophy of our day has already got a sensuous poetry in works which will doubtless be followed by others. It is because philosophy calls forth such influences, that it comes to have a sway over national character. We can believe with Montesquieu that the Epicurean philosophy exercised an influence in deteriorating the character of the Romans, in hastening their ripeness into rottenness, and determining their fall—we can understand this when we look into these fragments of obscene Epicurean verses, which have come out of the fires of Pompeii to testify against the inhabitants. We confess that we have fears of the results when the new physics come to crystallize into the creed of the rising generation, and to lead the literature and inspire the prevailing sentiment of the age.

Dr. Tyndall has no appreciation of the benefit conferred on science by Christianity in introducing new and lofty ideas: in showing that there is only one God, and thus preparing the way for the doctrine that there is a unity in nature; in leading men to expect that there are order and wisdom through all God's works; in making the study of nature a duty we owe to God; and in giving us exalted views of the soul as fashioned after the image of God. He speaks in disparaging language of the scholastic ages, whose function it was to preserve all through the cold winter, whose seeds which had been deposited by ancient thought, and which were ready to sprout at the return of spring—he might have spoken with more respect of the medieval ages, had he reflected that in them more new metals were discovered than in all the Greek and Roman times.—*International Review*.

TWO GREAT SCIENTIFIC TRUTHS have been established in this century. One is the doctrine of the conservation of energy, which implies that all the physical forces are correlated, and that the sum of force, potential and actual, in the universe is always one and the same. The men who did most to prepare the way for this doctrine, such as Newton, Davy, Oersted, Herschel, and Faraday, all delighted to see God in his works, and the living philosopher who was the main agent in discovering it, Dr. Mayer, has a mind filled with the presence of God, and looks on force as the expression of the Divine power. The other great doctrine is that of development, acknowledged as having an extent which was not dreamed of till the researches of Darwin were published. How far evolution is to be carried is a disputed point among naturalists. Darwin seems to have a great antipathy to final cause; but he has somehow or other convinced himself that there is a God, and is obliged to call in three or four germs, or at least one germ, created by God. It could easily be shown that the doctrine of development properly understood, and kept within inductive limits, is not inconsistent with final cause; for we may discern a plan and a purpose, means and end, in the way in which plants and animals are evolved, and in the forms they take, which are evidently not by chance, or by blind atoms, but according to a progression foreseen from the first, and proceeding in a determined order.—*International Review*.

ANOTHER EXPLOSIVE—OZOGENINE.—Foreign investigations of the actions of ozone upon certain hydrocarbons, have lately led to the discovery of an interesting substance to which the name of ozobenzene has been given. Pure benzole, yields, under the action of ozone, acid products, including formic and acetic acids, and at the same time a gelatinous body separates, which constitutes the ozobenzene. When dried in vacuo, this ozobenzene is an amorphous solid, explosive to such a degree that an explosion ensues whenever it is struck or heated. The explosion of only a few decigrams of the substance will shatter the windows of the room. It is so dangerous that not more than three to five milligrams should be used for the experiment. Ozobenzene is readily and, apparently, spontaneously decomposed in the air, in vacuo, or in an atmosphere of carbonic acid. Water dissolves and decomposes it.

Culture of Carnations.

Select the cutting you desire to propagate from the parent plant, and cut it through with a sharp knife just below the third pair of leaves from the top of the cutting; this done, cut off half the length of every leaf on the cutting except the two lower ones, which are to be removed altogether. Now you will fill quite a small pot with one-half soil and one-half sand; make it smooth and insert your cutting in the center, from one to one and a half inches in depth. Water well, place a hand glass or tumbler over it, and set it aside. This glass will gather moisture, and should be removed every day and wiped dry, and again replaced. You can, by this means, stake your cuttings in a room of your house with as much ease, and with as much certainty of their living, as within a green house. Cuttings thus prepared may be readily rooted in a window or in a room from May to October, without failure. I find a very good way to start cuttings to be in a raisin box of sand, filling the same with the cuttings half an inch apart, and keeping them well watered.

Layering is not so certain, and requires more care than the above method, nevertheless it is well to know how you are to do it. With a sharp knife you will remove the leaves from the second or third joint of the plant, without separating the same from the parent stock; having done this, carefully cut a slit under and half through the joint, being very careful not to separate the root from the main stem. Have ready your small pot sunk in the ground, in the soil which your cover you layer with. You will now peg the layer down with a small twig hook, and your work is done. Shade these from the sun while rooting, and when rooted sever from the parent plant, and you have an independent plant, thrifty and reliable.—*Ollipod Quill in Forest and Stream*.

RESPIRATION AND NUTRITION IN PLANTS.—M. Corenwinder, says *Nature*, has contributed to a recent meeting of the Scientific Society of Lille, an account of a series of observations on the processes of respiration and nutrition in plants, wherein he holds that the process of the absorption and decomposition of carbonic acid and exhalation of the oxygen, is really a process of digestion; that the absorption and exhalation in the process is a true process of respiration, similar, in all respects, to that of animals.

By a very careful series of analysis on several varieties of plants, he has determined that the proportion of nitrogenous matter in the leaves gradually diminishes from the time that they emerge from the bud till they fall from the tree; the proportion of carbonaceous matter increases very rapidly during April and May, and there remains until nearly stationary until October, while that of the incombustible substances increases during the whole period of vegetation.

PROTECTION AGAINST HAIL AS WELL AS LIGHTNING.—Observations in regard to the circumstances under which hail storms are formed, have conclusively proved that they can only originate by co-operation of clouds highly charged with electricity; therefore it was many years ago suggested that a great number of lightning rods or conductors erected on poles might protect a region from hail storms, and experience has verified this theory. We read now that it has been tried on a large scale around Tarbes, in France, where, according to a French agricultural journal, eighteen communes have been provided with such conductors, one of them being erected for every 700 acres, and that they have given full protection against both hail and lightning. This fact is important in many districts where peculiar topography renders them peculiarly liable to severe hail storms, which prove very destructive to vegetation, etc.

EARLY USE OF COAL.—A contemporary says: Coal is not, as is generally imagined, a modern form of fuel. The Chinese, forerunners in most discoveries, knew its value centuries ago. It is known to have been in use in the days of Julius Cæsar and the Roman Empire, and from the twelfth century to the present day the trade in coal has undergone progressive development. As long ago as Edward the Sixth's reign, toward the middle of the sixteenth century, coal was shipped from England to France, a letter of that date speaks of "that thing that France can live no more without, than the fische without water; that is to say, Newcastle coles; which nor metal worke, nor wyre make, steel worke nor metal worke, nor gones, nor no manner of things that passeth the fier."

EFFECT OF FLAME ON AN ELECTRIC SPARK.—Mr. S. J. Mixer notices a curious effect of a gas flame on the current of a Holtz machine. The jet consists of a glass tube drawn out to a point, and the flame had a length of about an inch and a diameter of only an eighth of an inch. Inserting this between the two terminals of the machine, the length of spark obtainable was at once increased from less than ten inches to over twelve, the full distance to which the balls could be separated. The same increase was not obtained by simply inserting a conductor between the two terminals, a ball an inch in diameter only lengthening the spark about an inch.

THE odor of a phial that has contained medicine may be removed by filling it with cold water and letting it stand in an airy place, unopened, for three days, changing the water every day.

The Shallowest Draught Steamer in the World.

The increasing necessity for effecting communication between distant places in foreign countries by means of water transit has, where such means of transit exists, led to a demand for vessels of a light draught in order to navigate very shallow rivers. Builders have gone on reducing the draught from two feet to one and even less, but as civilization spreads the navigation of still shallower streams and the supplying of still lighter draught boats become necessities. It thus happens that Messrs. Yarow & Hendley, of Poplar, have been engaged to design and construct some steamers of exceptionally light draught for the navigation of the upper waters of one of the rivers in Brazil. These boats are intended chiefly for the conveyance of passengers, and the first of them has just been launched, and made a satisfactory trial trip on Saturday last. In all probability she is the shallowest draught steamer ever built, her draught, with steam up and fully equipped, being only seven inches. This formed one of the conditions imposed upon her builders. The others were that she would not draw more than nine inches of water with 20 persons on board, and that she should be of such a size as to be capable of being carried whole on a ship's deck to the Brazils. The steamer has, therefore, been built with a flat bottom, and has a length of 45 feet, and a beam of eight feet, with a depth of two feet. She is propelled by a pair of paddles 54 inches in diameter, two feet nine inches breast, and each having eight floats. Her paddles are driven by a pair of inclined direct-acting engines, with cylinders five and a half inches in diameter and ten inch stroke. She is roomy and comfortable both fore and aft of her engines, there being accommodation for about 40 persons in all. Upon her trial trip on Saturday, with 18 persons on board, she drew eight and a half inches of water. Her engines ran at an average rate of 80 revolutions per minute, which gave her a speed of about eight miles per hour. On her first contractor's trial she made the same speed with the same number of revolutions, and with 130 pounds of steam, the stated consumption of fuel being 40 pounds of coal per hour. The run made with the little craft from the Temple to Greenwich and back on Saturday was thoroughly satisfactory and demonstrated both her speed and handiness. Now that it has been satisfactorily shown that such a light draught is perfectly practicable, it will probably follow that districts hitherto unexplored and lying up rivers previously deemed unnavigable will be opened up and new sources of commerce developed.—*London Times, November 5, 1874*.

TECHNICAL SCHOOLS.—Where our future skilled workmen are to come from is a question which is crowding for a solution. The decline, or rather the total abrogation of the apprentice system has deprived the youth of the opportunity of learning trades. The result is that there are few who are learning, so that skilled labor is getting scarcer in every department of industry. It is therefore a matter of urgent importance that some method should be devised to remedy this difficulty. Of all the plans discussed there seems to be but one which promises success; that is, the establishment of technical schools. The large amount of success which has followed the introduction of these schools in some departments of our activities is strong proof of their utility in all branches. We might refer to our various schools of design and art, to our medical schools, and schools of mining and engineering.

NEW APPLICATION FOR THE SPECTROSCOPE.—If the spectroscope is valuable and efficient in matters celestial it is not less so in matters terrestrial. For tests and analysis as a laboratory instrument, it becomes every day more serviceable. One of its applications is well worth notice, in testing the quality of water. In some places the water is found to be injurious to health. It is perhaps contaminated by infiltration from a sewer or cesspool. How is this infiltration to be discovered? A quantity of salt of lithium is thrown into the sewer or cesspool. After a time the drinking water is examined by the spectroscope. If the lithium line appears in the spectrum, it is a proof that a portion of the lithium salt thrown into the sewer or cesspool has found its way into the drinking water, and that the water is consequently poisoned by foul drainage. From this we see that the spectroscope may be made to do good service in protecting the public health.

GLUE.—Glue loses much of its strength by being often melted; that glue, therefore, which is newly made is much preferable to that which has been used. When done with, add some of the boiling water from the outer vessel to the glue, so as to make it too thin for use. Put it away till wanted again, and by the time the water in the outer vessel is boiled, the glue in the inner is ready melted, and the proper thickness for use. Powdered chalk, brickdust, or sawdust added to glue, will make it hold with more than ordinary firmness.

DIABETIC BREAD.—M. Dannecy proposes the use of bread made from roasted flour for diabetic patients, instead of gluten biscuit. He asserts that roasted starch cannot be converted into glucose, and that bread made out of the various farinæ so torrefied is greedily eaten by patients who have been restricted to the ordinary preparation of gluten until they have become thoroughly disgusted. Moreover, under its use the thirst lessens, and the digestive derangements are remarkably ameliorated.

USEFUL INFORMATION.

WHAT BECOMES OF OLD LEATHER.—In addition to the answers given to this question in previous issues, we now add an improved process of utilization, invented in France and Denmark. At the late exhibition in Vienna, leather was shown suitable for heels, toe-caps, and inner soles prepared from leather clippings, by simply mixing them with some adhesive substance, forming the mass into rectangular plates on top of each other, subjecting them to hydraulic pressure, and then drying and rolling them. This article was restricted in use because it could not withstand moisture. A Copenhagen firm, however, exhibited for the first time an article made upon an entirely different plan. The leather scraps were first converted, in a suitable machine, into a sort of leather-wool, which was mixed with caoutchouc and different chemical reagents, kneaded by machinery into a thick pasty mass, and then formed in metal molds, and dried and subjected to a gradually increasing pressure until it was finished under 6,000 to 10,000 pounds to the square inch. The appearance of leather is imparted to it by a light coating. Articles manufactured from this material are said to be 50 per cent. cheaper than those made from leather, and can be made in the same manner, while at the same time they are perfectly water-proof. It consists of about 41 per cent. of caoutchouc and 60 per cent. of leather.

FOR CEMENTING IRON-RAILING TOPS, ETC.—A correspondent of the *English Mechanic* states that he has found the following composition completely successful for cementing iron-railing tops, iron gratings to stoves and other similar applications, and with such effect as to resist the blows of the sledge-hammer, namely: Equal parts of sulphur and white lead with about a sixth of borax, these being thoroughly incorporated together so as to form one homogeneous mass. In applying this substance to either of the purposes named it is moistened with strong sulphuric acid, and a thin layer of it placed between the two pieces of iron, and these are then firmly pressed together to form a perfect union. In about five days it becomes perfectly dry, all traces of the cementing compound having vanished, and the iron exhibits the appearance simply of having been welded together.

TO PREVENT RUBBER SHOES FROM LOOKING DINGY.—This is a difficult thing to accomplish in any other way than by a daily application of means for removing the dirt. The action of sun, heat, dirt and water, attacking the coating of rubber, and impair its coloring matter. Heat softens the rubber to a certain extent, and allows the dust to fix itself not only on but in the rubber. The dust particles, to whatever extent they are present, contribute a dingy appearance, which cannot be permanently removed. We know of no better plan than to wash the top frequently with warm water and castile soap; after which rub the top with a flannel rag moistened with sweet oil, going over the top a second time with a dry rag in order to remove the oil. The remedy is only a temporary one, and therefore must be repeated whenever the rubber is soiled.

PURIFYING LINSEED OIL.—It is requisite that linseed oil should have the linseed oil they use perfectly colorless, otherwise they would spoil the more delicate tints. If it is not, it is extremely easy. Even putting a bottle in the sun for some days will accomplish the object; but as this process is somewhat tedious, it is better to put in a 2 oz. vial, three-quarters full of good common linseed oil, a piece of whiting as big as a nut, previously powdered, and shake them together and put the vial in an oven. In two days, and sometimes in a few hours, the whiting will have carried down to the bottom all color and impurity, and the refined oil floating at the top may be poured off for use.

REGULATING A COAL STOVE.—Never fill a stove more than half or two-thirds full of coal, even in the coldest weather. When the fire is low, never shake the grate or disturb the ashes, but add from ten to fifteen bunches of coal and turn the draft on. When these are heated through and somewhat ignited, add the amount necessary for a new fire, but do not disturb the ashes yet. Let the draft be open a half an hour. Then shake out the ashes. The coal has thoroughly ignited and will keep the stove at a high heat from six to twelve hours, according to the coldness of the weather. In very cold weather after the fire is made, add coal every hour.—*Coal Gazette*.

AN absolutely indelible ink—one that cannot be removed for the purpose of substitution—is a desideratum greatly needed. *Galignani* states that the French Stamp office has just purchased a secret of the composition of such an ink, and which resists the strength of all known reagents. Owing to that discovery, it is thought that it will be able to put an end to the numerous frauds which are constantly committed to the prejudice of the Treasury, and which consist in restoring to stamped paper already used, its original purity. The annual loss to the revenue on that head is calculated at 600,000f. in the Department of the Seine alone.

SOFTENING FILES.—Cover them with oil and hold them over the fire till the oil blazes; as soon as the flame runs all over the file, plunge it in water; or put them in a moderate hot oven for half an hour, if large files; but, if small, the first plan is the best.

PATRONS OF HUSBANDRY.

STATE GRANGE HEADQUARTERS.

I. G. GARDNER, State Agent; Executive Committee Rooms; Fruit Growers' Associations, and Farmers' Mutual Life Insurance Company, all at No. 6 Liederdorf street. W. H. BAXTER, State Secretary, at Grangers' Bank, 415 California street, S. F.

The "California Granger."

Subscribers will please settle all arrearsages for subscriptions to the "CALIFORNIA GRANGER" at this office. All patrons of that journal are invited to forward their subscriptions to the PACIFIC RURAL PRESS.

Secretaries will be supplied with a printed list of subscribers for this paper upon sending a list of post offices within the range of their Grange. Also with blank reports, etc., for clubs.

Grange Directory.—A full list of officers of the State Grange, Deputies, names of Councils, Subordinate Granges, Masters and Secretaries will appear in this department on the first Saturday of each month.

"The Grangers' Business Association of California."

It is proposed that a convention of Patrons be held in this city on the 15th of February, to consider the matter of completing the organization of this association. Also, to compare notes, exchange opinions, and prepare the way for the future prosperity of the Order and its members.

The meeting will be an important one. No Grange or true patron is so isolated as not to be interested. More than that. Every farmer is interested. Agriculturists still outside of the gates will be benefitted by the business success of this organization. There is no time to be lost. The time for action is at hand. Large crops are almost a certainty this year. The situation of affairs is now such that it is time for work. The gods help those who help themselves. We can now work from our own base—sure and steadfast. We can join hands with our Oregon neighbors who are organized in advance. We can yet secure advantages from our past efforts. It requires but a little from each patron to turn the tide that will steadily flow in our favor. No matter what your separate interests are, we say to all Grangers; come forward and make a general business stand, which shall be a protection and encouragement to every branch of agricultural industry.

Our organization is new. Frequent meetings—when they mean business, like the one proposed—are beneficial. Come together and receive the information which cannot so well and definitely be imparted to you otherwise. You know what business matters ought to be attended to at this season. It is not necessary that we should name them here. We are confident in saying that not one delegate who attends the proposed convention will depart saying it was not worth the time and cost of attending—to himself and constituents. Come prepared to do business. Have your propositions fully matured. Let no Grange withhold its representatives at this time. We know the leading men and the motives that call this meeting. They are worthy.

To Our Grange Correspondents.

We say a few words to Secretaries of Granges and others who kindly furnish us with information connected with the Order. In connection with the installation of officers we would say, that where the election of officers has been duly recorded—and we have endeavored to perform this task in a thorough manner—it would be superfluous to republish the same lists of officers when they are installed. When any changes have occurred between the occasions of election and installation, notices of such changes should be sent in. We aim at correctness in the Grange Directory, but mistakes or omissions may possibly occur, and our friends will do us a favor by notifying us of any needed corrections. We would especially ask the Secretaries of Granges to inform us of any omissions, errors, or changes of which they may be cognizant.

We would take this occasion to acknowledge our indebtedness to correspondents for past favors, with the hope that they will continue the same, but we suggest here that correspondents gauge the length of their contributions to the economic system of space rendered imperative by the increase of the Order. It is not our purpose to allow anything that is of importance to any Grange on the Pacific coast to pass unnoticed; but our friends should consider that proper attention to the Order as a national institution, spreading gradually over all parts of the country, demands an increasing amount of space in our columns. If the members of our local Granges will hear this in mind, and help us to economize space accordingly, they will really serve the interests of the Order.

WORK FOR THE RURAL CLUBS.—We cannot offer extra inducements for club subscriptions, but we hope, for the benefit of readers who will secure the RURAL at reduced rates, that secretaries and agents outside of the Grange will feel that they accomplish an object higher than money getting by extending the circulation of "the farmers' own paper."

The National Grange.

We have already made allusion to the regular annual meeting of the National Grange, which takes place at Charleston, S. C., on Wednesday next. We return to it again to give a list of the Masters of the State Granges, who, with their wives, will constitute the chief portion of this assemblage—we say the "chief portion" because "Past Masters" as well as "Masters" are entitled to seats in the National Grange, and many avail themselves of the privilege. This will be the fullest and most complete representative gathering of farmers ever held. Twenty-eight States will be represented, and the material composing the body will be of the very best kind. The place of meeting is also significant of the social and fraternal benefits which must result. The Northern farmer will there meet his Southern brother at his own fireside, and learn from personal observation more than could be gained from volumes of the baseness of character of those differences which are magnified by politicians into separating mountains. The farmers of the North, the South, the East and the West will sit down together in one great family, and thus by our example show to the nation how easy it is for people who may have had differences heretofore, to bury the dead past, and sit down in peace and unity under the broad banner of equality and fraternity, to the end that prosperity and natural good will may follow. We feel confident that blessed results will follow this grand reunion of the representative producers of the land. We append the names and post office addresses of all the acting Masters in the Union at the present time:

STATE.	MASTER.	ADDRESS.
ALABAMA.	W. H. Chambers.	Oswichee, Russell co
ARKANSAS.	John T. Jones.	Helena, Phillips co
CALIFORNIA.	S. M. Hamilton.	Glenoc, Lake co
COLORADO.	E. P. Tenney.	Fort Collins, Larimer co
DELAWARE.	(United with Maryland)	
IDAHO.	E. B. Crew.	Lodi, Clay co
FLORIDA.	B. P. Wardlaw.	Madison, Madison co
GEORGIA.	T. Smith.	Cenozo, R. B. Wash in co
ILLINOIS.	Alonzo Golder.	Rice Falls, Whitesides co
INDIANA.	H. P. James.	Marion, Grant co
IOWA.	A. B. Smedley.	Cresco, Howard co
KANSAS.	(United with Nebraska)	
KENTUCKY.	M. E. Hudson.	Mapleton, Bourbon co
LOUISIANA.	S. P. Brown.	Beverly, Christian co
MAINE.	W. L. Lewis.	Osyka, Pike co, Miss [co]
MARYLAND.	Nelson Ham.	Lewiston, Androscoggin co
MASS.	Joseph P. Felton.	Sandy Springs, Mont co
MICHIGAN.	J. B. Brown.	Greenfield, Franklin co
MINNESOTA.	S. E. Adams.	Cresco, Howard co
MISSISSIPPI.	W. L. Hemingway.	Carrollton, Carroll co
MISSOURI.	T. R. Allen.	Alton, St. Louis co
MONTANA.	Brigham Reed.	Bozeman, Gallatin co
NEBRASKA.	Wm B. Porter.	Plattsmouth, Cass co
NEW HAMPSHIRE.	Dudley T. Chase.	Claremont, Sullivan co
NEW JERSEY.	Ewd Howland.	Hammoncton, Atlantic co
NEW YORK.	G. D. Hinchley.	Fredonia, Chautauqua co
N. CAROLINA.	Colombus Mills.	Copcord, [co]
NEVADA.	(United with California)	
OHIO.	S. H. Ellis.	Springboro, Warren co
OREGON.	Daniel Clark.	Salem, Marion co
PENNA.	D. B. Mauger.	Douglasville, Berks co
S. CAROLINA.	Thomas Taylor.	Richland, Richland co
TENNESSEE.	Wm Maxwell.	Humboldt, Gibson co
TEXAS.	Wm W. Lang.	Martin, Falls co
VERMONT.	E. P. Colton.	Irassburg, Orleans co, [co]
VIRGINIA.	J. W. White.	Eureka Mills, Charlotte co
W. VIRGINIA.	B. W. Kitchen.	Shenandoah, Berkeley co
WISCONSIN.	John Cochran.	Waupun, Fond du Lac co
WASHINGTON.	(United with Oregon)	

In Memoriam.

Died—Jan. 21, near Florin, Sacramento county, Johanna Lea, wife of Chas. Lea, aged 37 years.

On the occasion above named, Florin Grange (which the above were members) met pursuant to a call by their Master, on the 22d inst., and adopted the following preamble and resolutions:

WHEREAS, On the 21st of January, 1875, the Great Master of the Universe has called from us here below to Eternity above, our beloved Sister, Mrs. Johanna Lea, and passed her, we trust, to a happier and higher degree of enjoyment;

Resolved, That while we deplore the loss of our Sister, and shall miss her in our meetings and social gatherings, still, we humbly bow in submission to the will of the Master above, feeling that our loss is her gain.

Resolved, That we mourn with profound regret the parting of this, the first link in our fraternal chain; and that we extend our sympathies to the bereaved husband and children and the many sorrowing friends.

Resolved, That the members of this Grange will wear the mourning badge of the Order for one month, to show our respect for the deceased Sister.

Resolved, That a copy of these resolutions be presented to Bro. Lea, and a copy be sent to the RURAL PRESS for publication.

J. J. BATES, Sec'y.

Florin Grange, Jan. 22d, 1875.

In Memoriam.

To the Worthy Master, Officers and Members of Nicasio Grange, Jan. 16th, 1874.

Resolutions of respect to the memory of our worthy sister, Mrs. H. F. Taft, late Cerea of Nicasio Grange, most respectfully submit the following preamble and resolution:

WHEREAS, It has pleased the infinite Father to call to a higher life one of our social circle, sending an angel messenger within our gates, taking from the Grange a worthy patronist—our sister Taft—therefore be it

Resolved, That in the removal of our sister, Nicasio Grange and the Granges at large have lost an active and earnest matron, and that in the death of sister Taft, our Grange has lost one of its most respected charter members, the community an upright, honorable woman, and her family an affectionate devoted wife and mother.

Resolved, That we extend to her bereaved husband and family our heart-felt sympathy in their sad hour of affliction.

Resolved, That the members of this Grange wear the usual badge of mourning for 30 days.

Resolved, That these resolutions be spread upon the minutes of this Grange, and that a copy be sent to the family of deceased, and to our county papers, and the RURAL PRESS for publication.

J. W. NOBLE, Secretary.

Business Association in New Zealand.

The following outline of the principles and working system of the New Zealand Loan and Mercantile Association, was furnished at the request of C. J. Cressey, Vice-President of the Grangers' Bank of California. It is believed that some of the points here eliminated may be made available by the business arm of the Grange. The communication is addressed to Mr. Cressey, and is as follows:

DEAR SIR:—At your request I have much pleasure in submitting a short outline of the nature of the business carried on by the New Zealand Loan and Mercantile Agency Company with which I was connected in London.

The company's headquarters are in Auckland, New Zealand, and the affairs of the company are managed by a Board of Directors chosen by the shareholders from amongst the wealthier producers in the Colony.

The subscribed capital of the company is \$2,500,000, of which \$500,000 is paid up. Since the establishment of the company, in the year 1862, the rate of dividend has been nearly uniform (10 per cent.), and they have a fund from profits reserved of about \$153,000.

For some years the producers in New Zealand submitted to the extortion practiced by a class of irresponsible agents, and the New Zealand Loan and Mercantile Agency Company was started to furnish a co-operative system by means of which the remote settlers could avail themselves of all the advantages of a responsible agency.

The officers of the company throughout the Colony were, at first, the officers of the Bank of New Zealand. Now, however, they have their own officers appointed in the principal districts.

By working harmoniously, the bank and the mercantile agency have secured a splendid business, and exhibit profits which no other bank or agency working alone could possibly attain.

The company makes advances in the Colony on produce, on the stations and stocks of run-holders and on the growing clips of wool, and receives the consignments of grain, wool, flax, tallow, leather, horns, etc., for sale in London or Liverpool on commission at 2½ per cent. on the gross sales. The company enters into no mercantile ventures, nor does it buy goods of any description on its own account. It has open policies with London insurance companies, on advantageous terms, by means of which the produce is insured from the moment it leaves the hands of the producer until it is landed in London or Liverpool. Shipping documents are transmitted with the bills of exchange, and are retained by the bank until the bills are paid, while the mercantile agency attends to the sales and renders account of sales through the officers of the company in the Colony. A regular channel is thus established for the produce of the Colony, and it has been found that increased attention has been given to the products of the Colony since the establishment of the agency in London, and consequently better prices obtained.

The company executes orders in London or Liverpool, forwarded through the agents in the Colony, charging commission at the rate of 2½ per cent. when funds are in hand, or are remitted by bank draft at usance; and 5 per cent. when not in funds, or only in possession of say 25 per cent. of the cost of the goods. The directors also issue debentures free of expense to the lender, which are secured upon the unpaid capital of the company, and the freehold and other securities upon which the paid up capital and money received upon debentures have been advanced. The company's borrowing powers, whether by debenture or otherwise, are limited by the articles of association to the amount of its capital unpaid.

Here, in California, the banking policy for years has been to throw nearly the whole export trade of the country into the hands of a few of the leading houses, advancing to those monopolists money in sums sufficient to enable them to control the price of grain before it leaves our shores—a policy which I cannot but think has been in many respects injurious to the reproductive industries of the country.

The successful results of co-operation as shown in the case of the New Zealand producers, induces me to believe that, by a judicious combination of banking and mercantile principles, it is within the power of the Grangers of this country to emancipate themselves from the influence of the "grain ring" of California street.

But in order to accomplish such a desideratum greatly enlarged powers and additional capital must be vested in the hands of the State Grange. They must become, so to speak, their own monopolist in order to insure free trade in grain. And in view of the increasing importance of the grain crops of California in the markets of the world, if but one-half the annual yield could be controlled by such an agency as is contemplated, our own institution, the Grangers' Bank, would earn a handsome profit on the exchange alone. At present we are without the necessary machinery to intercept the profits of the grain business at San Francisco. I am, dear sir, yours truly,

ALEX. WATSON.

San Francisco, Nov. 7, 1874.

PARADISE GRANGE, Nevada, is about to build a hall.

The Farmers' Insurance Association.

The first annual statement of the condition of the California Farmers' Mutual Fire Insurance Association, as made by the Insurance Commissioner of the State for the year 1874, is published in another column of to-day's issue. We would recommend its careful perusal by every person who has farm property which should or may be insured. It will be observed that the management, thus far, has been of a most economical character. The expenditures have been only \$5,485 to put the institution into good working shape, and raise the risks written to \$875,737. The sum of \$10,379 represents the present net income of the company—that amount of cash being actually in hand. No loans thus far have been incurred.

The premiums are deposits upon long-term policies, and the policy holders being subject to assessment in case the losses aggregate an amount which would render the same necessary, all balances remaining on hand at the expiration or surrender of the policy are returned to the depositor, who by this system obtains his insurance at actual cost. This Association is established purely as a farmers' institution, and only takes isolated and farmers' risks, thereby guarding against the heavy contingencies of town and city risks, which accordingly render the aggregate losses of other associations much heavier than this can be expected to be called to meet.

It should be understood that the benefits of this Association are open to all farmers, whether Patrons or not. People in this city, who own property in the country, will do well to inform themselves with regard to the advantages which this company presents over all others for such risks.

Election of Officers.

BLOOMFIELD GRANGE.—Wm. Lucast, M.; A. A. Boynton, O.; H. W. Judson, L.; Henry Pressey, S.; Robert Limebaugh, A. S.; O. Hoag, C.; D. H. Park, T.; A. B. Glover, Sec'y; Wm. Hall, G. K.; Sister W. D. Canfield, Ceres; Sister J. B. Pressey, Pomona; Sister Wm. Hall, Flora; Lucy Boynton, L. A. S.

WELDON GRANGE, Weldon, Kern county.—J. B. Batz, M.; W. J. Grant, O.; J. T. H. Gray, S.; C. L. Brown, A. S.; H. D. Stramler, C.; H. L. Cook, T.; W. A. Pemberton, L.; James Swan, Sec'y; R. C. Rowland, G. K.; Mrs. Lina E. Gray, Ceres; Miss Mary Coulter, Pomona; Miss E. Elliot, Flora; Miss Anna Riley, L. A. S.

TULE RIVER GRANGE.—E. H. Baker, M.; L. M. Bond, O.; G. A. Williamson, L.; G. W. McElvy, S.; W. English, A. S.; J. M. Brown, C.; J. B. Hockett, T.; Miss Jane Gilmer, Sec'y; W. J. Williams, G. K.; Mrs. G. A. Williamson, Ceres; Mrs. Sarah Hadley, Pomona; Mrs. M. H. McGee, Flora; Miss Sarah Carroll, L. A. S.

EAOLE VALLEY GRANGE.—George W. Chedic, M.; M. C. Gardner, O.; A. D. Treadway, L.; J. T. Griffith, S.; J. A. Lovejoy, A. S.; S. A. Nevers, C.; M. G. Stewart, T.; O. A. Z. Gilbert, Sec'y; J. M. Gatewood, G. K.; Mrs. E. J. Dow, Ceres; Mrs. H. M. Gardner, Pomona; Mrs. C. M. Lovejoy, Flora; Mrs. E. A. Nevers, L. A. S.

NATIONAL RANCH GRANGE.—F. A. Kimball, M.; G. L. Kimball, O.; M. B. Hammer, L.; T. Walker, C.; D. W. Bryant, S.; W. C. Kimball, T.; E. T. Blackmer, Sec'y; R. D. Perry, G. K.; Mrs. T. A. Walker, Ceres; Mrs. L. B. Roberts, Pomona; Mrs. L. B. Kimball, Flora; Mrs. F. M. Kimball, L. A. S.

BALENA GRANGE.—C. O. Tucker, M.; W. C. Billingsley, O.; C. W. Stone, L.; J. J. Sander-man, S.; S. Stone, A. S.; M. V. Casner, C.; M. D. Putnam, T.; Mrs. C. O. Tucker, Sec'y; A. Green, G. K.; Mrs. C. W. Stone, Ceres; Mrs. N. O. Casner, Pomona; Miss M. Stone, Flora; Mrs. W. C. Billingsley, L. A. S.

HAYWARDS.—By request, Bro. C. J. Cressey, of the Grangers' Bank, will visit Eden Grange, at this place, February 6th, and will give some valuable information on financial matters. He will also let out many interesting hints and facts on domestic economy, that will be eye-openers to many even thoughtful minds. It will pay Grangers to come a long distance to hear Bro. Cressey's off-hand farmers' speeches.

THE SOLANO CO. COUNCIL will meet at Suisun at 10 A. M., Tuesday, Feb. 1st. A full attendance should be had. Bro. C. J. Cressey, manager of the Grangers' bank, will be present. When he speaks he "says something," every time.

SAN MATEO GRANGE installs officers Thursday evening, January 28th. Bro. Baxter and others from San Francisco will be present. Dance in the evening and a good time generally, doubtless.

SURRENDERING A GRANGE CHARTER.—It is held that a Grange cannot surrender its charter so long as nine men and four women, members thereof, vote against so doing.

THE GEORGIA STATE GRANGE held its annual session at Macon last week. The Order is flourishing in that State.

From the Granges.

Plaza Grange.

EDITORS PRESS:—Please take notice that Plaza Grange, No. 52, has elected and installed some new officers. The installation took place on the first Saturday in this month. M. Kendrick, Master; J. W. Bower, Sec'y, and Brother Zumwalt installing officer. Grain and grass in this part is looking very prosperous. We are having a pleasant shower now; may it continue until all farmers and parts of our State receive a fair share. As Sec'y of our Grange I am trying to get up a club for your paper, which is an ever welcome visitor at my fireside. It seems to me that all farmers should take it, and profit by the reading. J. W. BOWERS.

St. Johns, Colusa Co. Cal., Jan. 13, 1875.

Harvest Feast of Salinas Grange.

This pleasant occasion occurred on January 2d, a large number of Patrons and invited guests being present. The correspondent who kindly furnished us with an account of the affair, relates the following interesting and commendable episode.

"When all had finished their feasting, then came the clearing of the table. A large box was filled with the remnants and sent to a poor widow."

Suisun Valley Grange.

EDITORS PRESS:—At a regular meeting of the Suisun Valley Grange, January 4th. The officers for 1875 were duly installed. The ceremonies were conducted by Past Master R. C. Hsile, and were highly appreciated by the members of the Order. And, notwithstanding the deep feeling of regret, throughout the Grange at having to part with our long tried and very Worthy Master, R. C. Hsile, under whose supervision our Grange has flourished ever since its organization; yet from the integrity and intelligence of our newly elected Master and other officers elect, we feel assured that we will not fall in the rear. We hope to be able to report as favorably of our Grange in the future as we have in the past.

Mrs. R. B. CANNON.

Pajaro Grange.

EDITORS PRESS:—Having been a subscriber to the PRESS ever since it started, I feel that I could hardly do without it. While writing I will say that Pajaro Grange is in a prosperous condition. The rain has been copious and warm and everything is lovely.

DAVID CRAWFORD.

Watsonville, January 20, 1875.

Weldon Grange.

EDITORS PRESS:—I have taken the RURAL PRESS for two years, and consider it the best paper on farm and household matters in the State. Our Grange does not number many members at present, but it is steadily increasing, and the attendance is considered good by visiting members from other Granges. I send you a list of the officers elected and installed.

JAMES SWAN, Sec'y.

Bloomfield Grange.

The installation of the newly elected officers of Bloomfield Grange took place on January 9th. The hall was tastefully decorated and a large attendance of Patrons and others enjoyed the feasting, dancing and speeches called forth on the occasion. Secretary Glover sends a racy and pleasant account of the affair which we regret being unable to publish, owing to the press of Grange matter about these days. Our brothers and sisters should consider that the present active working condition of the Order calls for a large amount of space to record its doings.

Ballena Grange.

EDITORS PRESS:—Our Grange is flourishing as well as could be expected, when its youth and inexperience are taken into consideration. In our sparsely settled section of the country it is anything but an easy task to awaken the interest of the farmers sufficiently; yet with proper effort we hope to make our Grange a success. The crop prospects are very encouraging, most of the sowing is now completed, at least six weeks earlier than last year. The old fogies have, as usual, cheered us with their chronic prognostications of a "dry season;" yet, notwithstanding their ghostly croaking, the rains are coming copiously. The grass is very forward and plentiful.

Mrs. C. O. TUCKER.

Ballena, January 18th, 1875.

Eden Grange.

EDITORS PRESS:—Eden Grange, P. of H., No. 106, met on the 1st of January, at 1 o'clock P. M.; Worthy Master, Thomas Hellar in the chair. After the usual business we proceeded to install the officers by Bro. Dewey, P. M., of Temescal Grange. After the installation a few remarks were made by Bro. Dewey and W. M. Thomas Hellar, for the good of the Order. After which a vote of thanks was tendered to Bro. Dewey for his services as installing officer. The farmers are all feeling jubilant over the good rains we have had. Some of our brother and sister friends have had too much. I see there is to be a ball at Livermore Grange on Washington's birthday, for the benefit of the Kansas sufferers; I hope there will be a good attendance. The Secretary of the Grange was instructed to invite Bro. C. J. Cressey, Vice President of the Grangers' bank to address us on Saturday, February 6th. A full attendance of members is requested. W. PEARCE, Sec'y.

January 23, 1875.

Grange Wedding.

EDITORS PRESS:—Bro. Baxter recently gave you a racy account of a Grange funeral—ironically, of course—of Santa Rosa Grange. But it is now our turn. We have had a grand Grange wedding!

Last Saturday was the day appointed to consummate the nuptials. The weather on that day was favorable, and the press of farm work being over, there was an old-fashioned turnout of members of Santa Clara Grange, while several visitors were present from Saratoga, and Mayfield came in a body to renew their vows with us around the altar of union, casting their lot with us, "for better or for worse," for all coming time. Bro. Peebles did the introducing, and Bro. Z. L. Garwood, our chosen committee of one, did the ceremonies of the occasion, in a neat little speech.

To show the interest and earnestness of our new members I will add that fourteen of their number paid in their quarterly dues a whole year in advance—the sum of \$13 each, adding perceptibly to the sum in our treasury.

At the previous meeting the officers elect for 1875 were installed by Past Master Leonard. The sisters had provided the usual good things for the table, the music had been properly hashed up for the occasion, and the Editor, A. B. Hunter, read the Grange paper, called the *Herald of Progress*; in all, making a most enjoyable time.

This paper is produced once a month, usually after the harvest feast. Everyone likes to hear the paper read, and I would say to all Granges that are indulging in a "Rip Van Winkle sleep," that if they will select a live Editor, with a small corps of supporters, they will be happily surprised at the amount of talent they wake up.

Those who will not write may select from the writings of others. In this way many valuable items, culled from the RURAL PRESS and other sources, have been presented, and received with a new relish.

Now, Mr. Editor, as every Grange will be just what it makes of itself, it only requires the courage of resolution to make the Order everywhere a school for improvement; fitting the farming class for duties which they too often trust to others, who prey upon the results of their labor by extravagant fees of office, by neglect or mismanagement of public affairs, and in a thousand other ways work to their disadvantage. Not until this has been done will the Grange organization fulfill its mission, which is to elevate the farmer by guarding his interests, and which can be done in no more effectual manner than by mutual, social and intellectual culture.

I have received several renewals for the RURAL PRESS, which I will soon send in. The mergerment of the *Granger* with the RURAL will meet with favor everywhere, as two papers were not really needed, and you can, if possible, make yours better. It never comes too often, and always speaks words of wisdom and good cheer, having no competitor anywhere as an agricultural, Grange, and family journal.

I. A. WILCOX.

Santa Clara, Jan. 11, 1875.

Round Valley Grange.

The Secretary of Round Valley Grange reports as follows: "Our Grange is beginning to work for good, and I have no hesitation in saying that before it is another year old all of its members will acknowledge that they have been benefited by it. We have 30 charter members and have initiated 30 others since our organization, and this includes the greater number of the farmers of this valley."

THE WAREHOUSE COMMITTEE.—The Warehouse committee appointed, at the annual meeting of the State Grange, have recently visited Martinez and vicinity for the purpose of ascertaining the nature of the facilities it affords for warehouses at which produce from the interior can be stored and loaded directly on board ocean ships for export. Messrs. Mizner & Shirley placed the steam ferry boat "Carquinez" at the disposal of the committee for such examination of the channel and shores of the straits as they wished to make.

BASKET FACTORY.—Mr. Brown, recently arrived from Michigan, is moving for the establishment of a basket factory at San Jose. He proposes to manufacture baskets from the Oregon fir, which is said to be fully equal to the elm which is used in Eastern factories. There is great need for such an establishment, for there is not one, we understand, on the coast. Thus, one by one, are manufactories being established in our city, and we hail them gladly, for they are the elements of prosperity and permanent growth.

FOREIGN COAL.—It has been published as a suggestive fact that more foreign coal is brought into San Francisco than is received at any port in the Union. It is to be hoped that the time will soon come when the industry of this coast will be sufficient to raise all the soft varieties of coal needed upon this coast. The geological conditions here, however, are such that we shall have to depend upon foreign countries for our anthracite.

The Pith of the Finance Question.

Although we are not addicted to the prevailing habit of submitting financial schemes to the public, we do not profess total abstinence in the matter. A few weeks since we took occasion to observe, in an article entitled "Too Much Aggregating," that instead of making a study of the wealth of nations, we should look after the bank accounts of the individuals comprising those nations, and that national prosperity is simply a reflex of individual prosperity. It is gratifying to note that the simple views which we placed before the farmers of the Pacific coast were laid before the American Dairyman's Association, at their recent convention, at Utica, New York, by their President, Hon. Horatio Seymour.

The Ex-Governor, who is a thorough farmer and extensive dairyman, on taking his seat addressed a few plain, practical remarks to the assembled dairyman, closing with the following hints on the financial aspect of dairying:

"Public men are discussing to-day how to get back to specie payments. I think there is one answer to that—that when the people of these United States make themselves rich and prosperous by wisdom and economy, and by good judgment, our paper will be worth the face. A wise and prosperous man cannot get his paper depreciated. There is no strategy that can enable a man to get wealthy, unless it is founded upon the substantial condition of his affairs. But I think we are doing a little more than Congress are doing on this subject, when we are adding to the prosperity of this pursuit, and are tending to lift the American people into a higher condition of morals than we have now. When we have more just ideas of economy, we shall work out the problems which now affect us. It is not to be done by tricks of statesmanship—it depends upon the advanced intelligence of our people. We are setting an example to the rest of the country, and I trust are getting at the solution of the matter."

During the session of the convention a resolution was passed that a memorial be sent to Congress—not begging a subsidy or any other favor—but simply asking that the dairy interest of the country receive in the approaching national census the consideration which its importance demands. This consideration it has not heretofore received; and a portion of the earnings of the dairies, which, combined, forms at present one of the foremost interests of the country, has been appropriated by government to direct and indirect favors to interests of much less importance.

We have gathered some of the cream—no pun intended—of the deliberations of these dairymen in council, which we propose to lay before our readers in future numbers of the *Press*.

Industrial Items.

A NEW MATERIAL FOR PIPES.—Calcined granite is now used in Scotland as a substitute for clay in the manufacture of pipes and other earthenware articles. This is a new and very important industry. It is affirmed that the material, after the most thorough tests, has been found capable of sustaining the heat of a strong fire, and that it is unaffected by transitions from heat to cold. An Eastern journal, in noticing this new industry, says that this material has also been applied to the formation of busts, statues, vases, urns, and general pottery, as also in chimney pieces, spouts, etc.

A NEW INDUSTRY.—The Colusa *San* says: There was shipped from Colusa to San Francisco on Friday, about two tons of tule roots. The Chinamen here gathered them for their countrymen at the bay. They say they are used as an article of food, and are worth six cents a pound. If there can be a market found for tule roots at six cents a pound, we don't want to throw away any more money reclaiming swamp land. It is a better crop than wheat.

THE SARATOGA PAPER MILL.—Many valuable improvements have recently been made in the machinery of E. T. King & Co's paper mills, at Saratoga, and a new boiler has been put up with arrangements for consuming all the smoke. The company is now working a full force of hands, and the mill is now turning out large quantities of paper.

LOCKS.—It takes a great many locks to make the Palace Hotel a safe institution. Ralston has contracted with a San Francisco locksmith for 4,000 locks and 48,000 keys, the whole to cost \$20,000. Enough to build a small hotel of itself.

THE SACRAMENTO woolen mills, recently burned, are rapidly approaching completion. The roof is on and about half the flooring laid.

ANOTHER KEEL.—The Vallejo Co-operative Ship Carpenters' Association is preparing to lay the keel of another vessel.

A GRIST MILL at Placerville is turning out an excellent article of buckwheat flour and corn meal.

A FRUIT packing establishment has been incorporated at San Jose, with a capital of \$200,000.

General News Items.

A CLOSE CALL.—At T. W. Haskins' shingle mill, Pescadero creek, on the 16th inst., Wm. Milliken, while employed in lacing a belt, had his coat caught by a pulley, which wound the garment up in an instant, and Mr. Milliken found himself turning one hundred revolutions per minute, or less. Mr. Haskins, who was working near by, ran and grabbed the flying man by the foot, jerking him loose in a little less than no time. When the man of wonderful velocity viewed himself he found that his condition was one of nudity, excepting pants and boots; many bruises, but no bones broken. Had the coat been of strong material, there would be a dead Milliken, in all probability.

DANGER FEARED.—It is feared that danger may arise if the proposed dam is constructed on Calaveras creek, Santa Clara county. It is proposed to form a reservoir to supply San Francisco with water by erecting a dam 225 feet high, which will flood an area of 225 square miles, provided the reservoir ever became filled. Such a body of water thus reserved would be a constantly threatening danger to all and everything below; but there is no probability of such a dam being constructed. In expectation of it, however, land to be flooded has risen from \$40 to \$100 per acre.

A VALUABLE BRICK.—In the Bank of France they have got a brick for which they paid 1,000 francs in specie. It was taken from the ruins of a burned house, and the image and figures of a note for 1,000 francs are burned on the surface, transferred by the heat from a real note. This brick the bank redeemed on presentation, as if it were the note itself.

PENSIONERS.—There are 54 widows of Generals and 217 of Colonels on the pension rolls. When the pension paid the Brigadier-Generals, \$50 a month, was offered to the widow of General Meade, she very emphatically declined to receive it, because it was less than that paid Mrs. President Lincoln.

A BLACK DAY.—The revelations of the P. S. S. Co., Investigating Committee have marked up a black day for the American Congress, and, what has heretofore been considered the respectable press of the Union. The lamest duck just now is ex-Congressional-Postmaster and Congressman-elect King. He has gone where the woodbine twineth.

ALVISO RAILROAD.—This narrow gauge project is again advocated by the San Jose papers; but nobody moves. The company which was formed two years ago, got the right of way and stopped. Somehow it is easier to locate the road on paper than build it and decide on its management. Capital, for some reason, is offish.

RECOVERING.—Gen. Cobb, of Alameda, who was shot on Washington street in this city a short time ago, by a woman, has so far recovered that he will be able to attend to business in a few days. The ball has not been extracted, but it causes him no inconvenience at present.

LYNCH IN NEVADA.—Two Indians were Nevada, as they were days ago near Pioche, trial. A raid was subsequently made for slain other Indians, also implicated, during which seven or eight more Indians were shot.

RELIEF FOR MARYSVILLE.—The relief movement for the sufferers at Marysville continues, and a very generous disposition is manifested by citizens everywhere, and by various benevolent and other associations to mitigate, so far as possible, the distress of the sufferers.

A HARD CASE.—A lady who lost \$3,000 in gold notes by the burning of the Parker House, is advertising for a situation as housekeeper. It was all the money she had, and with her little boy, she is among strangers.

DEATHS IN SAN FRANCISCO.—During last week 70 persons died in this city—60 Caucasians, 1 Ethiopian and 9 Mongolians. Sixteen persons died in public institutions, and there was one casualty.

EMPEROR DEAD.—The Emperor of China who was but a young man himself, died on the 12th inst., and as his legitimate heir is an infant of five years, it is uncertain whether he will be allowed to reign.

NEW SENATORS.—Andrew Johnson was elected Senator from Tennessee, on Tuesday, and General Burnside was elected to the same honor on the same day at Providence, R. I.

EARTHQUAKE.—Quite a severe earthquake was experienced on Monday along the eastern slope of the Sierra from Downieville to Sacramento city.

TO BE HUNG.—Vasquez has been condemned to be hung on the 19th of March. Of course his counsel has applied for a new trial.

A WOMAN AND EIGHT CHILDREN BURNED TO DEATH, is the heading of a telegraph item from Quebec, Canada. The accident occurred near that city.

PROPOSED BANQUET.—Californians in New York are to have a grand banquet on Thursday next. Jacob Leese heads the movement.

INDIANS FROZEN.—Quite a number of Indians have recently been badly frozen in Cheyenne. Several have suffered death.

THE British steamer "Berar," from Odessa for Cardiff, is supposed to have foundered with all on board, twenty in number.

CASTELAR declares he will refuse to take his seat in the Cortes if required to swear allegiance to the monarchy.



An Autumn Ballad.

The fruits of the farm are gathered in
From the orchard bough and the fallowed field,
Till cask and crib and granary bin
Are full to the brim with a bounteous yield;
And vapory clouds have now begun
To dapple the shield of November's sun.

'Tis a time of rest for the husbandman;
His heart is big with ripe content
As he takes his wages for the sweat and tan
And strength in summer's labors spent;
Nor coin of a mint nor crown of a king
Could ever so sweet an enjoyment bring.

The tolling farmer has earned the right
To sit by his cheerful hearth-wood blaze,
When frost is nipping the fingers of night,
At evening tide in the shortening days;
And, folding his hawny arms o'er his breast,
Thanks God for labor that bringeth such rest!

And now, if ever his toilsome lot
Has found him weary and worn and faint;
If e'er a desponding, trustless thought
Has almost framed a murmuring plaint;
The season's plenty and peace bestows
Abundant reward and calm repose.

His happy companion, counselor, wife—
His queen in the realm of worth and grace—
Finds pleasure enough to sweeten her life
In watching the smile on her husband's face.
Ah! who can fathom the wells of joy
That so deep and still in her bosom lie?

G. H. Barnes.

Bundles.

By ELIZA E. ANTHONY.

Large bundles and small bundles, long bundles, round bundles, and every other kind of bundles that were ever invented to torment womankind. Did you ever see a woman who did not carry something? It may have been a poodle, or perhaps an elegantly embroidered purse, but something she must have in her hands. "I sometimes roll up an old newspaper and carry it when I have nothing else, for I don't know what to do with my hands, they look so awkward hanging at my side," said a lady to the writer not long since; and there are many who concur with her. Just think of it, ye who walk the street, erect, with an elastic tread, and your arms hanging at your sides where they were intended to be, you are awkward and ungraceful in the eyes of a select few; but thank heaven, not the sensible people. We would like to know which looks the worst, to have the arms in their natural position, or to have them bent in front of you, with the hands hanging helplessly, *a la Grecian Bend*? We confess in our estimation, the former is far preferable. But, bless me! this is 'ut bundles. Why is it, that men seldom, if ever, carry bundles, and yet, who ever heard of a man looking awkward and ungraceful, with his arms swinging? We know every size, form and despise, but we never, no never, enter, leave, or walk in town, that our arms are not literally overflowing with bundles; so we know whereof we speak.

San José, Oct. 16th, 1874.

A Chinese Fable.

A priest seeing a piece of old paper on the ground, told his pupil to pick it up, which he did immediately.

"What paper is it?" asked the priest.
"It is," said the pupil, "what once enveloped some perfume, has been thrown away, but yet retains the odor."

Going farther, the priest saw a piece of string upon the ground, and again told the pupil to take it up.

"What string is it?" he asked.
The pupil said, "It has a strong smell of fish, once tied with it."

"In the beginning," said the priest, "man was pure and without blemish, but by frequent contact with others, he has brought himself happiness or punishment. If one keeps the company of wise and good people, he becomes wise and good; but if he contracts friendship with foolish and wicked people, misfortune and punishments overcome him. As with this paper it continues to be fragrant from having once enveloped perfume; as the string has become stinking, having once touched the fish. In our intercourse with men, insensibly we contract good and bad habits from them."

THE BOSTON GIRLS are more than usually stunning and expensive this Fall. They are very slender, straight as arrows, with lovely complexions and golden hair. Their black silk dresses and straight polonaises glitter with jet tringes and jet embroidery, the latter covering them like a coat of mail. A heavy gold necklace and locket half hidden in the full lace round each slender throat, and on the golden locks is jauntily set a soft, high-crowned, dark blue felt hat, with a wide brim, carefully crushed and battered on one side, and on the other turned up and fastened with a brilliant, above which waves a tall feather, the color of the hat.

How to Train a Boy.

M Quad gives the following valuable advice with regard to training up a boy: Have you a boy from five to eight years old? If so, it is a matter of the greatest importance that you train him up right. Teach him from the start that he can't run across the floor, whoop, chase around the back yard, or use up a few nails and boards to make carts or boats. If you let him chase around he'll wear out shoes and clothes, and nails and boards cost money.

Train him to control his appetite. Give him the smallest piece of pie; the home end of the steak; the smallest potato, and keep the butter dish out of his reach. By teaching him to curb his appetite you can keep him in good humor. Boys are always good humored when hunger gnaws at their stomachs. If he happens to break a dish, thrash him for it; that will mend the dish and teach him a lesson at the same time. If you happen to notice that your boy's shoes are wearing out take down the rod and give him a peeling. These shoes were purchased only ten months ago, and though you have worn out two pairs of boots during that time the boy has no business to be so hard on shoes. By giving him a sound thrashing you will prevent the shoes from wearing out.

When you want your boy to go on an errand you should state it and add:

"Now go as quick as you can, and if you are gone over five minutes I'll cut the hide off your back."

He will recognize the necessity of haste, and he will hurry up. You could not do the errand yourself inside of fifteen minutes, but he is not to know that. If you want him to pile wood, the way to address him is thusly:

"Now, see here, Henry, I want every stick of that wood up before noon. If I come home and find you haven't done it I'll lick you till you can't stand up!"

It is more than a boy of his size can do in a whole day; but you are not to blame that he is not thirteen years old instead of eight.

If you hear that any one in the neighborhood has broken a window, stolen fruit or unhinged a gate, be sure that it was your boy. If he denies it, take down the rod and tell him that you will thrash him to death if he doesn't "own up," but that you will spare him if he does. He will own up to a lie to get rid of the thrashing, and then you can talk to him about the fate of liars and bad boys, and end up by saying:

"Go to bed now, and in the morning I'll attend to your case."

If you take him to church and he looks around, kicks the seat or smiles at some boy acquaintance, thrash him the moment you get home. He ought to have been listening to the sermon. If he sees all the other boys going to the circus, and wants fifteen cents to take him in, tell him what awful wicked things circuses are; how they demoralize boys; how he ought to be thrashed for even seeing the procession go by; and when he's sound asleep do you sneak off, pay half a dollar to go in, and come back astonished at the menagerie and pleased with the wonderful gymnastic feats.

Keep your boy steady at school, have work for him every holiday; thrash him if he wants to go fishing or marbles; rant him out at daylight, cold or hot, cuff his ears for asking questions; make his clothes out of cast-off garments, and you have the satisfaction, when old and gray headed, of knowing that you would have trained up a useful member of society had he not died just as he was getting well broken in.

THE GIRL TO FIND.—The true girl has to be sought after. She does not parade herself in show goods. She is not fashionable. Generally she is not rich. But oh! what a heart she has when you find her!—so large, and pure, and womanly. When you see it you wonder if those showy things outside were women. If you gain her love, your two thousands are millions. She'll not ask you for a carriage or a first-class home. She'll wear simple dresses and turn them when necessary, with no vulgar magnificence to frown upon her economy. She'll keep everything neat and nice in your sky parlor, and give you such a welcome when you come that you'll think your power higher than ever. She'll entertain true friends on a dollar, and astonish you with the new thought how little happiness depends on money. She'll make you love home (if you don't you're a brute), and teach you how to pity while you scorn a poor fashionable society that thinks itself rich, and vainly tries to think itself happy. Now, do not, I pray you, say any more, "I can't afford to marry." Go find the true woman, and you can. Throw away that cigar, burn up that switch cane, be sensible yourself, and seek your wife in a sensible way.

A NEW PROFESSION FOR WOMEN.—A new industry for women has been commenced in England by four ladies of standing in London. It is that of home decorative artists. They undertake the whole furnishing, upholstery, furniture, and all that tends to embellish the interior of a dwelling. They are said to be remarkably clever and very successful. They have served a regular apprenticeship, and acquired a thorough knowledge of the business. It would seem to be a business peculiarly fitted to the taste for and love of the beautiful inherent in women.

MAN, being essentially active, must find in activity, joy, as well as his beauty and glory; and labor, like everything else that is good, is its own reward.

True Manhood—The Right Man in the Right Place.

Postmaster-General Jewell is an active and consistent member of the Congregational Church; and for a time, while he was Governor, he acted as precursor in leading the congregational singing at that church. He carried his religious ideas with him to Russia, and instead of devoting the Sabbath to festivity, or visiting the theater, he was accustomed, with his family, to attend the little Protestant church. He was told, on arriving at St. Petersburg, that all members of the court were accustomed to play for money, and he would have to learn, or risk the loss of social position. Mr. Jewell, replied that he never had learned to gamble, and did not think it best to commence now, and, furthermore, the Secretary of Legation, was quietly informed that the gentleman who filled that office during his ministry must not be a gambler. This was strange doctrine for St. Petersburg, but he did not lose social position by its avowal, and retained the respect of the Emperor and court.

He found that Americans, visiting St. Petersburg, had no place where they would be likely to meet each other, and access to the American Minister was not so easy as desirable. So he established a free reading-room at the legation, supplied with American and other newspapers, where American visitors could freely meet each other, and had his own office there, where he could readily be found by his countrymen.

Mr. Jewell has been actively interested in every public enterprise in his own city and state; is a director in the old Hartford National Bank, and in the Phoenix Fire Insurance Co. He was also interested, actively and pecuniarily, in the organization of the Travellers Life and Accident Insurance Co., and has been on its board of directors from the start. He has large executive and business ability, a boundless capacity for work, and a sunny flow of animal spirits. When examined for a life policy, a few years ago, he said he had never been sick in his life, but once while riding across the Arabian desert he one day had a bad headache. Bringing this tireless ability to bear on our national postal service, it would seem that the President could scarcely have found a more capable man for Postmaster-General.—*Phrenological Journal*.

Evenings At Home.

One of the greatest mistakes a young man ever makes on settling down in life, is to go outside his dwelling, night after night, in search of companionship and amusements. We do not sit down to write a sermon, or an essay on temperance, but there are some things to be said on this subject to working men, and the *Builder* is a good place for saying them.

First, then, the habitual absenting one's self from home is a positive wrong to the family. During the business hours of the day there is work to be done, and absence from the home circle is compulsory, but the family have a perfect right to the society of the husband and father after work hours are ended; and when he refuses them this companionship he robs them of a just right.

But every man needs the refining and elevating influence of home life, whatever his occupation, whether he be merchant, lawyer, or mechanic. If he cuts himself loose from them he does so at his peril. He, individually, is the greatest loser. He may neglect his family, and they may grow apart from him, and his children may stumble and fall in the highway of life in consequence of his neglect, but none will suffer loss to the extent that he suffers personally.

A man who shuns his home is sure to do so at a great cost. What are called boon-companions are expensive luxuries; they cost money, and, what is more, they almost invariably cost health and self-respect. During the last decade the habit of drinking has spread marvelously among the American people, and beer and whiskey have become quite respectable; so much so, indeed, as to put in peril thousands of homes that once were considered in no danger. Habits that are fatal in their results have small beginnings, grow by imperceptible degrees, and do not appear in the least alarming until their victims are beyond reformation.

We have often in these columns sought to build up the home kingdom, believing it more potent in development of a true and noble manhood than any and all other means combined.—*American Builder*

DINNER TABLE SQUABBLES.—Perhaps nothing is more prejudicial to the proper assimilation of food than disputation. The mind becomes irritated, and instantaneously the stomach sympathizes. A dinner table is the worst possible place for an argument which may easily become heated and acrimonious. Nor should it be a place where children are constantly reprimanded, or their bad conduct suffered to destroy the comfort of the meal. Discipline in the household is highly necessary, but the wise mother will not make it a prominent feature at the table. Good news, happy thoughts, innocent mirth and cheerful sayings are the most efficacious relishes, and should be used freely. An uncomfortable meal, whatever may be the cause, is almost certain to produce indigestion. And though such small matters may be thought by many unimportant, they go very far toward the establishment of good health, and even the most robust cannot neglect them with impunity.

Garden Patches.

One of Boston's best known merchants, noted for his shrewdness and penetration, had a test case presented short a time since and came off victorious. As it is an illustration of this millionaire's penetration in great business affairs we give the story here.

It appears that the merchant wanted another gardener upon his country estate near Boston and an individual presented himself for that office.

"Understand the business?"

"Yes, been in it for two years."

Whom had he lived with last? The applicant mentioned a gentleman the merchant was well acquainted with, stated that he left for no cause, but that his former employer was going to Europe had sold his estate, and had no further use for him.

"What wages do you expect?"

"Eighteen dollars a month."

This was astonishingly low for such a promising looking, sober man, and the shrewd business man rubbed his chin thoughtfully and reflected that it was a bargain lot, but "wasn't there something wrong about it?" His habitual business caution even in this comparatively trifling negotiation did not forsake him.

"Call to-morrow at this time, and I will have seen Mr. —, your former employer and give you an answer."

The gardener turned and walked slowly away; as he did so, he displayed two patches on the seat of his pantaloons beneath the line of his roundabout jacket.

"Hallo! here! come back here," called the merchant, "You needn't apply to-morrow; I see I shan't want you."

The astonished applicant stammered out something about his knowledge of gardening and good character, but was cut short by this practical observer.

"Don't want you, sir, the patches on your breeches are on the wrong side; a gardener's breeches ought to be patched at the knees, not on the seat. You won't do for me.—*Boston Bulletin*.

A "Confederated Home."

I have heard an amusing account of the failure of a recent attempt to establish a "Confederated Home."

In London five families, possessing small incomes, united in the establishment of a common home. A large house in the Bloomsbury region was taken for the purpose, and the arrangements for the regulations of the household were made with the utmost care and precision. There was to be a common dining-room, in which all the meals of the household were to be taken, and each family had a set of rooms, which it was to furnish and arrange as suited its own convenience. There was to be one cook for the whole household, and a couple of servants to do the other work.

The experiment was commenced, and for a day or two matters went well enough. Before a week had passed, however, it became evident that to govern a confederated home would be nearly as difficult as to manage an Irish Parliament.

The five families could never agree as to what they should eat and drink. The dinner, especially, was a standing subject of dispute, and the consequence was that the kitchen became a scene of constant wrangling between the unfortunate cook and her five mistresses. The other servants also found it impossible to meet commands of their associated mistresses.

Five bells would frequently be ringing at the same time and one family would complain that they were being neglected, and that another was receiving undue attention. Then the children of the different families would quarrel. Of course each mamma was sure that her darlings were not the cause of the disturbance.

In short, before a few weeks had passed, the party who told the story called a "confederated discord," and had to be broken up.—*London Cor. of the Liverpool Post*.

Overdress.

It is to be feared at the present day that women of the upper circles are spending fortunes on the toilette, which good mothers in former times would have saved to endow their children; that less wealthy women are bringing certain misery to many a home by emulating the richer classes; while those of humbler rank, rushing eagerly in the same mad race of vanity, exhaust the surplus means that used to be laid by for a marriage portion or "a rainy day," and so the mischievous folly descends. Mothers should be on the alert to guard their daughters against it. Elder sisters should not forget that young eyes are looking at them as examples, and are much more impressed by the living models before them than by any amount of "good advice." Nothing is of greater importance than the companionship permitted to young girls. Not only do overdressed companions induce the wish in themselves to overdress, but if the gratification is denied, covetousness, envy, hatred and uncharitableness, are very likely to find birth in hearts that might be full of better feelings. An undue love of overdress has been only too frequently the cause of ruin, both of body and soul.

SHOT FOR A GOOSE.—A spread-eagle orator wanted the wings of a bird to fly to every village and hamlet in the broad land, but he wilted when a naughty boy in the crowd sang out, "You'd be shot for a goose before you had fled a mile."

How to Keep a Wife's Love.

Many men would retain the romantic affection and love of the woman they marry much longer if they would express the tenderness they really feel oftener.

Women love to hear things talked about. They like to hear a husband say he loves over, and over again. They like to have him tell them in plain terms that he misses them when they are absent. They like compliments that come from the heart, however free they may be from vanity. And a little praise of dress, or face, or manner, is a great comfort to one who has given herself to one man for a lifetime.

The moment of promise and vow must be supplemented by many fond words scattered all through her life, else grieving doubts creep into her soul. A term of endearment, a pet name, some little token that she is to him what no other woman is, will make her feel matrimony a happier estate than the merriest time of girlhood. And if in public he shows other women that he esteems and values her society, jealousy can never poison her life and his also.

There is a great deal of talk about women "loving forever," however the man they love may turn out. It is true in one sense; he may be a rascal to other folks and not alienate her tenderness; but once convince any high-spirited woman that he is false to her, that he loves her no longer, has a "romantic friendship"—the worst of all flirtations—with another woman, and in place of love comes an emotion too cold to be called hate, and that puts a stronger barrier between them than anger can raise. Silence is apt to foster the doubts that bring this feeling with it. Often just saying, "You are better, sweeter, dearer than any one else," would save her. But man, after his boyhood, rather shrinks from wordy love making. He thinks that his wife should take his affection for granted, if even he sits in the corner whispering to Miss Flip with his back to her all the evening, and let her put on her shawl herself while he interests himself in Miss Flip's boar.

By his neglect he spoils her temper, and the spoilt temper drives him from her at last, and turns her first foolish suspicions into realities.

Confidential Advice.

The following "confidential advice" intended more particularly for "ministers" might be taken home by a large class of their hearers as well:

Make no apologies. If you have the Lord's message, declare it; if not, hold your peace. Use short prefaces and introductions. Say your best things first and stop before you get prosy. Do not spoil the appetite for dinner by too much thin soup. Leave yourself out of the pulpit and take Jesus in. Defend the gospel and let the Lord defend you and your character.

Do not get excited too soon; do not run away from your hearers; engine driving wheels whirl fast on an icy track, but when they draw anything they then go slower. It takes a cold hammer to bend hot iron. Heat up the people and keep the hammer wet and cool. Too much water stops a mill, and too much noise drowns sense. Empty wheels ring the loudest. Thunder is harmless, lightning kills. If you have lightning you can afford to thunder. Do not abuse the faithful souls who come to meeting on rainy days because others are too lazy to attend. Preach the best to the smallest assemblies. Jesus preached to one woman at the well, and she got all Samaria out to hear him the next time.

Do not repeat sentences, saying, "as I said before;" if you said it before say something else after. Do not end sentences, passages of Scripture, or quotations, with "and so forth;" say what you mean and stop. Leave out all words you cannot define. Stop preaching and talk to folks. Come down from your sifted ways and sacred tones, and become as a little child. Tell stories; Jesus did, and the common people heard him gladly.

Aim at the mark, and hit it; stop and look where the shot struck; then fire again; let your target be the heart and the soul.—*Exchange.*

FRANKLIN ASKING FOR WORK.—When quite a youth, Franklin went to London, entered a printing office and inquired if he could get employment as a printer. "Where are you from?" inquired the foreman. "America," was the reply. "Ah," said the foreman, "from America! A lad from America seeking employment as a printer! Well, do you really understand the art of printing? Can you set type?" Franklin stepped to one of the cases, and in a very brief space set up the following passage from the first chapter of the gospel of John: "Nathaniel saith unto him, Can any good thing come out of Nazareth? Philip saith unto him, Come and see!" It was done so quickly, so accurately, and contained a delicate reproof so appropriate and powerful, that it at once gave him character and standing with all in the office.

THOUGHTS.—People often say thoughts come into the mind, as if thoughts were things outside of the brain and could walk about and help themselves to a home in any man's brain as they pleased. It is not true. Thoughts are formed by the brain, suggested by other thoughts partly, or by facts or observations on things seen. without brain there would be no thought, so far as this life is concerned.

YOUNG FOLKS' COLUMN.

Gathering Acorns.

[BY LAURA JAMESON DAKIN.]

Up the hill the children go,
Merrily marching two by two;
Now they reach the great oak's shade,
Blue-eyed boy and brown-eyed maid.

Hear their laughter, joyous sounds,
Drift with bird notes far around,
As pipes a voice full of glee,
"Tom and Jack have climbed a tree."

"Shake the acorns, shake them down,
Emerald green and shining brown,
See my apron, brightest red,
Right beneath you now I'll spread."

"Throw in acorns, largest kind
That on the tree you can find,
I want some to make a basket,
Dolly's cradle and a casket."

"Kate wants some to cut out rings,
Cups, saucers and other things,
Pattie some for frame work needs,
Belle some smaller ones for beads."

So the brave boys do the honors,
While gay aprons float like banners,
Held aloft to catch the treasure,
Dropping downward for their pleasure.

In what shapes they cut and carve them;
Every toy is a perfect gem,
O, to be pleased with childish joys,
Bless the girls, and bless the boys.

The California sun shines down,
And turns the acorns darker brown,
Till they fall in Autumn weather,
For uncanny hands to gather.

Dark are the faces bent above them,
For the Indian children love them,
Not for frail toys, but food to eat,
Acorns are Indian's bread and meat.

Questions and Answers for Boys.

I should like to know if a boy can be happy always?

Ans.—No. Nearly all have a taste of unhappiness now and then, but they soon get over it and feel better. It is only those who are unhappy for days and weeks at a time that have a very hard lot. A healthy person soon gets over any bit of unhappiness in a little while.

Can dirty people be happy?

Ans.—Habitually filthy people cannot; yet we must not be so afraid of our work as to fear ever to soil our hands.

Can a boy who eats too much be happy?

Ans.—Gluttons are almost always unhappy except when eating. They are made to feel cross with too much food, and do not care to speak kindly to any one. Avoid eating and drinking too much, or too little.

What makes little boys cross in the morning sometimes?

Ans.—Perhaps they ate too much supper, and so did not sleep well. A bad night's sleep destroys happiness. Perhaps they slept in bad air, and so the blood is rendered impure. The best thing for a boy or girl to do when they get up cross and unhappy in the morning is to wash and dress quickly, and get out of doors to take the fresh air. Fresh air helps make people happy.

How can any one be happy when they have the toothache?

Ans.—The toothache spoils happiness, and the best way to be happy is to get over it. Go to a dentist and let him tell you what to do to keep your teeth from aching. The toothache has made a great many people miserable.

Can a boy who has bad habits be happy without breaking them?

Ans.—No. Bad habits make old and young miserable. There is no age when it is so easy to form good habits as when young, so begin now and form them, and you will never be sorry.

How can a good habit be formed?

Ans.—By sticking to it till you know it by heart. Then it becomes a part of yourself. Suppose, for instance, you desire to form the habit of learning something new every day. It won't do to read over the books that tell you so, but you must do the thing itself, till it becomes so easy that you do it unconsciously and without thinking.—*Herald of Health.*

The Bright Side.

Why can't we always look on the bright side—the right side of things—make the best of it? No matter how it may blow, storm and rain, the clouds can't last forever; they must break and the sun will pour forth in renewed glory. Some people, both old and young seem to be continually doing all in their power to make the worst of things and everything about them. They always find and only look upon the darkest side of the picture, and endeavor to make themselves and others believe that so it will and always must be, in spite of nature itself, that no cloud has a silver lining. The difference in condition in those we meet lies in most cases just here: Making the best of things is a fairy God gift which we all have, but which many have allowed to wither and dry up for want of proper nourishment as circumstances around them grew dark and discouraging. "Never give up—never say die." The world is not half so bad to us as we are to ourselves. Don't become indifferent but look trouble cheerfully in the face, and half its terror is gone. Make the best of it—look on the bright side. "Oh, doubting heart look up. The shining sun, the deepening blue, in God's own time will come anew. No clouds can last forever."—*Ex.*

"ADVISED."—We shall give your sensible advice, to the "Young Folks," next week.

GOOD HEALTH.

Consumption of the Lungs.

EDITORS PRESS:—The more important labor of revitalization of the blood, taking place in the lungs—if that organ be implicated—it is essential to recuperation that no unnecessary labor be given it. Therefore the air inhaled should be pure, and the food that is used, also; consequently but few localities are well adapted to the recovery of persons afflicted with any predisposition to diseases of the liver or lungs. Breathing being both mechanical and chemical in its operation, and the force required being a draft on the vitality, all methods must be contrived to husband that force. The first step is to place the sufferer in proper climatic surroundings, which should be an altitude of from 1,200 to 1,500 feet above sea level, with the temperature as near 70 degrees (Fahrenheit) as practicable. The hygrometer should indicate less than an average of moisture. These conditions attained, the next in importance is the food. Partial indigestion usually preceding, the stomach must be attended to. Most of the mistakes in nutriment begin in the mouth. To have digestion, thorough mastication is an absolute necessity, and the food must be selected with a view to compel the performance of that operation. Parched grain, or hard bread, made from the whole of the grain is good; vegetables and fruit next, as containing the required moisture.

The corrosive qualities of fuel differ widely in giving a stated or definite amount of power to the engineer, so with the food in the human locomotive, and hence it should be chosen with this fact in view. Those classes of foods which rapidly decompose when introduced into the stomach should be avoided. Among these are milk, beer, wine, etc. Grapes are excellent diet for the consumptive, as they contain all the elements required to form good limpid blood. This quantity of limpidity is as essential as a freedom from the excess of carbon in the blood, when it enters the lungs, thus lightening the labor of the weakened organ. The operation carried on may be likened to that of generating power in a furnace, the throat and lungs answering to the furnace; hence if there be a defect in the furnace the whole operation must be governed with a view to lessen the wear and tear until such time as the grate bars can be renewed. The custom of administering oils and alcoholic liquors in this class of diseases can only be likened to using coal oil or kerosene to heat a furnace. By living in the open air, where that air is naturally pure and free from excessive moisture, by the use of electricity passed by moist sponges through the relaxed portions of the body; by the sun bath and by general cleanings, the disease can be arrested in nearly every stage—still much depends upon the skill of the manipulator. All that it is required to know to treat successfully this usually fatal malady can be gathered from the above.

F. M. SHAW,

Los Angeles, January 1, 1875.

IMPURITIES IN THE ATMOSPHERE.—Men are aware of the large amount of dust, fibrous substances, etc., that are constantly floating in the atmosphere, aside from the deleterious gases also present. The air which ventilates the English House of Parliament passes through filters of cotton. The appearance of the filters after having been used is startling, indeed; they are of a heavy, murky brown color, thick with dust and organic impurities. The sieves through which the air is first passed have also deposited near them quite a heap of larger intercepted particles. By allowing a sunbeam to enter a slightly darkened room, no matter how free we strive to keep it from dust, we shall always find the path of the beam illuminated with an infinitude of floating particles of organic matter. If we could see the impurities in the air we are constantly breathing as clearly as we see them in the path of a sunbeam through a darkened room, we should utterly revolt at being compelled to breathe such an atmosphere. The air of our various manufacturing and our machine shops, with the ventilation usually given them, is really unfit for a human being to take into his lungs. Careful examination has proved that the air in our railroad cars, as we go whirling along the track, is filled with invisible particles of iron and wood, to say nothing of other matters, to an extent which seems almost incredible. A better system of ventilation is one of the most important needs of the day.

THE HEAT OF THE BODY.—In olden times, when a physician wished to determine the character of a disease, he had to rely on his sense of touch to tell whether his patient was feverish or not; if the physician's hand was hot, then his patient felt but moderately warm; but, if it happened that his hand was cold, then a moderately warm patient seemed to be hot and feverish. This difficulty is now quite solved by the use of a thermometer. The heat of the human body is about 98 degrees Fahr., and, by placing under the armpit the bulb of one of these instruments, it is readily seen whether the temperature of the body is higher than that. It has been suggested that if mothers were to use the instrument, much anxiety might be saved, for, if it indicated a temperature higher than normal, then the medical man's aid might be very fitly sought, while, if it showed no excess, unnecessary fears would be allayed.

DOMESTIC ECONOMY.

The Products of Gelatine.

The interesting and singular fact appears that millions of dollars cover the value of the gelatine industry in this country, and this value is said to be still greater in Europe. The purest form of commercial gelatine is known as isinglass, the best being prepared from the air-bladders and sounds of three or four species of sturgeon. These tissues are cleansed, dried and scraped, forming what is termed leaf isinglass, or they are twisted into various forms called long and short staple, or folded into packages called book isinglass.

The Russian isinglass has always held the highest rank in the market, but its manufacture is very simple. The swimming bladders of the fish are first placed in hot water, carefully deprived of adhering blood, cut open longitudinally and exposed to the air, with the inner delicate, silvery membrane upward; when dried, this fine membrane is removed by beating and rubbing, and the swimming bladder is then made into the forms desired.

Machinery is employed to cut isinglass into the delicate filaments in which it is usually sold. A solid gelatine, in thin plates and strings, is manufactured in large quantities in France, to answer the purpose of isinglass. The best is transparent, and is prepared from the gelatine of boues, by digestion in dilute hydrochloric acid and long boiling in water. It is much cheaper than the first described article, as well as decidedly inferior. The same may be said of another variety, known as opaque gelatine, which is prepared from the cuttings of skins.

A GOOD BED.—A most soft, comfortable, and wholesome filling for beds or for mattresses, can be procured in most country places by getting a farmer, when threshing to allow oat chaff to be saved. It is soft, light and elastic, and when new and clean is very sweet. The cost is very light, only the cost paid by the farmer for the men saving and sifting it. As oat chaff is rarely used for cattle food it is easily obtainable. It is so very light that a slighter kind of bed-tick than is necessary for other kinds of filling is quite sufficient for oat chaff. Another advantage is that it can be changed every year at so little cost that it is within the reach of many if not all. For children's beds it is perfectly satisfactory. It is only necessary to keep a sack or two stuffed full of oat chaff in a dry place, and then new and fresh filling is at hand to make a sweet bed whatever accident may have befallen the cot mattress. Next to the chaff is clean oat straw for bedding. Indeed, we would make this our first choice, after the more cleanly mat for all adults. It should be changed frequently and always be kept sweet and clean.

GLYCERINE FOR PRESERVING FRUIT.—We learn through a German journal, says the *Journal of Applied Chemistry*, that in order to preserve fresh fruits it is only necessary to heat them, if not perfectly ripe, in water almost to boiling, drain nearly dry and cover with warm, concentrated glycerine. If the fruit is perfectly advised to pour water is unnecessary. It is also for some time, and add it after standing glycerine on a water bath and use a second time. Ordinary glycerine is often impure, but only that which is perfectly pure and colorless, with a clean, sweet taste and a specific gravity of 1.25 should be employed.

VIENNESE MEERSCHAUM.—The product known as Viennese Meerschaum is prepared by mixing 100 parts silicate of soda with 60 parts of carbonate of magnesia and 90 parts of the native meerschaum or pure alumina. This mixture is then pulverized with the greatest care, and passed through a sieve of very fine silk or horsehair; add water, and boil it for ten minutes; then pour the whole into moulds, placed so that the water may separate easily.

GLUE TO RESIST FIRE.—The *London Furniture Gazette* gives this recipe: Mix a handful of quick lime in 4 oz. of linseed oil; boil to a good thickness, then spread on plates in the shade and it will become exceedingly hard, but may be easily dissolved over the fire, and used as ordinary glue. It resists fire after being used for gluing substances together.

CRAYONS FOR DRAWING ON GLASS.—Melt together equal quantities of asphaltum and yellow wax; add lampblack, and pour the mixture into moulds for crayons. The glass should be well wiped with leather, and in drawing be careful not to soil the glass with the fingers. In trimming these crayons, the point may easily be rendered very fine.

OYSTER OMELET.—Whisk four eggs to a thick froth, then add by degrees, one gill of cream; beat them well together; season the egg with pepper and salt to taste. Have ready one dozen fine oysters; cut them in half and pour the egg into a pan of hot butter and drop the oysters over it as early as possible. Fry a light brown and serve hot.

RESTORING IVORY.—Discolored ivory may be restored to its original whiteness by cleaning it with a paste, composed simply of burnt pumice stone and water. After cleansing, place the article under the glass in the sun's rays.



PUBLISHED BY
DEWEY & CO.

J. DEWEY. W. B. EWER. G. H. STROB. J. L. BOONE
PRINCIPAL EDITOR.....W. B. EWER, A. M.

Office, No. 224 Sansome street, Southeast corner of California street, where friends and patrons are invited to our Scientific Press, Patent Agency, Engraving and Printing establishment.

Subscriptions payable in advance—For one year, \$4; six months, \$2.25; three months, \$1.25. Remittances by registered letters or P. O. orders at our risk.

Advertising Rates.—1 week. 1 month. 3 months. 1 year
Per line.....25 .80 \$2.00 \$5.00
One-half inch.....\$1.00 \$3.00 \$7.50 24.00
One inch.....2.00 5.00 14.00 40.00

Large advertisements at favorable rates. Special or reading notices, legal advertisements, notices appearing in extraordinary type or in particular parts of the paper, inserted at special rates.

No Quack Advertisements inserted in these columns.

SAN FRANCISCO:
Saturday, January 30, 1875.

TABLE OF CONTENTS.

GENERAL EDITORIALS.—Grain Bags; Among the Tules; The California Condor, 65. The Wheat Situation; Henry Durant; The Late Storm; The "Evening Post" Party; Economic Botany, 72. The Fruit Growers of Western New York, 73. Patents and Inventions, 76.

ILLUSTRATIONS.—The California Condor, 65. Economic Botany, 73.

CORRESPONDENCE.—The "Rural Press" in Washington Territory; From Borden, Fresno County; Rain Fall at St. Helena; From Walnut Creek; From San Bernardino; From Visalia, 66.

USEFUL INFORMATION.—What Becomes of Old Leather; For Cementing Iron-Railing Tops, Etc.; To Prevent Rubber Shoes from Looking Dingy; Purifying Lined Oil; Regulating a Coal Stove; Softening Files, 67.

PATRONS OF HUSBANDRY.—Progress of the Patrons in California; New Granges; Meetings; Etc., 68.

HOME CIRCLE.—An Autumn Ballad (Poetry); Bundles; A Chinese Fable; How to Train a Boy; The Girl to Find; A New Profession for Women; True Manhood—The Right Man in the Right Place; Evenings at Home; Dinner Table Squabbles; Garden Patches; A "Confederated Home;" Overdress; Shot for a Goose, 70. How to Keep a Wife's Love; Confidential Advice; Franklin Asking for Work; Thoughts, 71.

YOUNG FOLKS' COLUMN.—Gathering Acorns (Poetry); Questions and Answers for Boys; The Bright Side, 71.

GOOD HEALTH.—Consumption of the Lungs; Impurities in the Atmosphere; The Heat of the Body, 71.

DOMESTIC ECONOMY.—The Products of Gelatine; A Good Bed; Glycerine for Preserving Fruit; Viennese Meerschaum; Glue to Resist Fire; Crayons for Drawing on Glass; Oyster Omelet; Restoring Ivory, 71.

HORTICULTURE.—Florists' Flowers, 73.

AGRICULTURAL NOTES from various countries in California, 76.

MISCELLANEOUS.—Astronomical Science; Hop Pruning, 66. The Unity of the Universe; Another Explosive—Ozobenzene; Culture of Carnations; Respiration and Nutrition in Plants; Protection Against Hail as well as Lightning; Early Use of Gas; West of Flame on an Electric Lamp; Technical Schools; Drought Steamship Product of 1874; Disintegration of Glass; Something New for the Sick Room, 74.

The Wheat Situation.

The Colusa *Sun*, of January 28th, contains an article on this subject, which is important to all agriculturists in the present situation, and immediate prospect of our wheat trade. It is not supposed that there is anything in the present condition of things that should cause alarm; but it must be evident to all that the matter demands serious consideration. Without assuming the position of special advisors we would ask our wheat growers if it would not be more prudent and business-like to take advantage of the present low rates \$2 10s, even with the prospect of the wheat lying in foreign markets awaiting an advance, than to let it remain here—subject, probably, to as expensive rates of storage—until an advance in price or necessity, induces hurried sales, and places us entirely at the mercy of shippers?

The present remarkable inactivity in grain shipping is really unaccountable in the judgment of those who have taken a comprehensive view of the situation; and an impression prevails in some quarters that "it means something," and that the Grangers are at the bottom of it. But such, we are assured, is not the case. And we are also informed that the Order is expected to take, at an early date, such action as the urgency of the case demands. We sincerely hope that it will do so; and that no jealousy of the Order will deter our siders from lending their counsel and aid in reducing the present chaotic shipping system to working order. All must admit that unity of counsel and action is called for imperatively, and we think it will also be ad-

mitted that we have little reason to expect this unity from any other quarter than the Grange; and if the Order can remove the obstructions that now clog our wheat trade, securing shipping at the right time and at satisfactory rates, and look after the selling or storing of it in foreign markets, it will lay the whole country under obligations to it.

We give the article of the *Sun* nearly entire, omitting only what is evidently prompted by personal prejudice, rather than by the great interests at stake:

"While we are cut off from all the rest of the world by the flood, we had as well examine for a while, the situation of the grain trade. We have urged upon our farmers the necessity of varying their productions from that of so much wheat, not for the reason that we are likely to stock the world's market, but because we are so far from that market that the question of tonnage cuts so conspicuous a figure in our market. What is the situation at present? A greater area has been sown to wheat, from all accounts, than ever before in the State. We had shipped, up to the first of January, only about 300,000 tons of our present crop. This is only about three times as much as the productions of Colusa county. There has not been, perhaps, over 50,000 tons shipped since the first. This leaves us with the bulk of our crop yet on hand. Ships are lying in San Francisco offering at \$2 10s but are not loaded. Unless the European crops fail this year, and this we have no right to calculate upon, wheat will not maintain a better price next year than it has this. In less than five months the new crop will be ready for shipment. We have a thoroughly disgusted lot of ship owners, and it is not likely that they will make a grand rush for California, and the indications are that prices will rule very low. Last year at this time most of our surplus had left these shores, and ships were being engaged for the coming crop. Now we don't suppose there are any engagements being made, and it is not likely that there will be as long as ships are lying idle in our waters offering at \$2 10s. All things considered it is not the part of wisdom to get our present crops afloat as soon as possible? This certainly must be done if we expect to get any ships to take away our next crop. We would be in a pretty muddle with a large part of this year's crop on hand at the beginning of a big harvest, and no ships headed this way! But it strikes us that we are in danger of this. Farmers should have taken our advice and have varied their crops more the present season, but the wheat is in the ground and the prospects good for a large yield. These may not be pleasant reflections, but it does us no harm to look facts squarely in the face."

Henry Durant

The great gulf between the present and the mysterious hereafter seems to be bridged over when a life which has been in a continuous line of progress rises out of the range of our vision, and passes the boundary of its earthly activity. The sorrow and sympathy written on every face in Oakland, tell us more plainly than words can do, that HENRY DURANT is for the people among whom he lived and labored, this living link between two worlds.

The marks made by any individual life upon its century, seem but ripple marks when looked at from a distance; but of the men who rank as founders of States and societies, and who become monumental in their own place, Henry Durant was one. In our fresh sense of sorrow for his loss, what he accomplished seems so little in comparison with what he was, that we leave the story of it to another hour. The "strong, sweet soul, has filled the chalice of the earthly life, and mingled in the waters fast flowing before the Throne of God."

Whittier's lines seem to have been written for him, and for the day which will long be remembered here with hallowed associations:

Silent for once the restless hive of labor,
Save the low funeral tread,
Or voice of craftsman, whispering to his neighbor
The good deeds of the dead.

Touched with a grief that needs no outward draping,
All swelled the loud lament
Of grateful hearts, instead of marble, shaping
His viewless monument.

Thanks for the good man's beautiful example,
Who in the vilest saw
Some sacred crypt, or altar of a temple,
Still vocal with God's law.

Not his the golden pen's or lip's persuasion,
But a fine sense of right,
And truth's directness, meeting each occasion
Straight as a line of light.

His faith and works, like streams that intermingled,
In the same channel ran;
The crystal clearness of an eye kept single
Shamed all the frauds of man.

The very gentlest of all human natures
He joined to courage strong;
And love, outreaching unto all God's creatures,
With sturdy hand of wrong.

Tender as woman; manliness and meekness
In him were so allied
That they who judged him by his strength or weakness
Saw but a single side.

And now he rests; his greatness and his sweetness
No more shall seem at strife,
And death has moulded into calm completeness
The statue of his life.

But round his grave are kindness and beauty,
And the sweet heaven above,
The fitting symbol of a life of duty
Transfigured into love.

The Late Storm.

The farmers, not to be outdone by the miners have had their "bonanza" within the past few weeks, in the shape of a most abundant rainfall. It was thought at one time that the present would be a dry year for both miner and farmer, because such a long spell of dry weather followed the first rains of the season. Within the past two weeks, however, an abundance of rain has fallen; and the only trouble has been that it was more than was wanted in some localities. The late storms have been very general, extending all over this State, and a long way outside our borders.

In those places which were subject to floods, as at Marysville and some of the tule lands, they have had more water than they wanted. Sonoma county, too, which comes out best in dry years, could have done with less rain. All the islands in the delta of Sacramento county are more or less under water, except Grand Island, the most northern. The great Parks levee in Sutter county, inclosing some 120,000 acres of land, and which was made at a heavy cost, gave way. On these lands, however, a flood does not prevent a crop from being raised.

To the farmers in the great San Joaquin valley, this storm has been truly a God-send. They needed rain badly, and have got all they wanted. Their fears of a dry year are dispelled, and the faces of the farmers are wreathed with smiles.

Some of the mountain streams have done considerable local damage by overflow, and in some places were higher than during the great flood of 1861-62, carrying away debris left on the banks in the "wet winter." Some idea of the rapidity with which these mountain streams swell, may be derived from the statement of the *Calaveras Chronicle*, that the Calaveras rose seven and one-half feet in one hour and thirteen minutes.

In California the principal damage done was at Marysville and Yuba City, which were overflowed. In Nevada and Utah many lives have been lost by snow slides, and considerable damage done to property also. In Oregon three lives have been lost by snow slides.

We append some figures giving the rainfall of the late storm in different localities of the State. In Salinas the amount of rainfall during the storm, which commenced on the 24th inst. and ceased on the 26th, was .75 of an inch, making a total fall of 8.40 for the season. The rainfall at San Luis Obispo for the past week makes in all 14 inches. The same amount has fallen this season at San Buena Ventura. In Visalia the amount of water which has fallen fully equals the amount of an ordinary rainy season, giving promise of a prosperous year. From the 15th inst. to the 21st 3.34 inches of rain fell. The rainfall for January up to the 20th inst. at Placerville, El Dorado county, was 12.045 inches, making a total of over 24 inches for the season before the late storm. The rainfall at San José for January up to the 20th inst. was 3.04 inches, a total for the season of 7.41 inches. At Livermore, Alameda county, from October 1st to January 19th, the total fall was 5.55 inches. At Colby they have had up to the 20th inst. 17.14 inches, over an inch and a half more than during the same time last year. Up to January 15th at Santa Barbara they have had 4.13 inches for the season. At Los Angeles, from Saturday night to the end of the storm, there had fallen 12.35 inches, an average of over five inches for every twenty-four hours.

Since the heavy rains we have had a severe norther blowing, which was predicted by the Signal Service Bureau. "Old Probabilities" was successful in this prediction, and saved considerable property thereby. As it was, however, a number of schooners were sunk at the wharves, and several vessels damaged by collision and chafing. Some of the ferries were not running part of Monday, but by that afternoon the wind had died away. The vessels which postponed sailing by the advice of the Signal Bureau have since gone to sea. The north wind has had a very powerful drying tendency as usual, and our streets are already free from mud. The predictions of the Signal Service, telegraphed from Washington, were verified in a few hours, and afford another practical proof of the value of scientific meteorological observations.

The "Evening Post" Party.

On Saturday, of last week, a large party of invited guests assembled at the headquarters of the *Evening Post* to witness the workings of their new press, stereotyping process and mechanical appliances recently introduced there. Everything worked satisfactorily, and there was but one opinion expressed by the throng of visitors, which was, that the proprietors of the *Post* might well be proud of the exhibit. There was much in this display that was entirely novel to many of the guests, and expressions of extreme surprise and satisfaction were quite common. The editorial and composing rooms were also visited, and found to be of the highest order; and in a side room a lunch in perfect keeping with the other departments, was spread before the visitors, who repaired thither occasionally to partake of the good things there provided. The occasion was a pleasant one in every respect. The guests were in excellent humor, while all connected with the establishment were fully up to the occasion in attention and courtesy.

Economic Botany.

Lecture Delivered before the University of California College of Agriculture on Monday, Jan. 14, by Prof. C. E. Bessey, M. S., of the Iowa College, Ames, Iowa.

[Reported expressly for the *RURAL PRESS*.]

I must first make a little correction of the definition of "economic botany," given in the circular describing this course of lectures. This definition should include plants which are harmful to man; so, in putting down your definition of it please include the two terms, useful and harmful. And when we speak of useful plants, of course we mean those which furnish food for man and the domestic animals, which furnish medicine for both; and covering for both, and after having taken into consideration these two things there are a good many extras, things which we may lump; for instance a great many ornamental plants that must necessarily come in. On the other hand, harmful plants would include all of our weeds, all that are poisonous and the plants that we take up specially to-day.

The Parasitic Fungus Growths.

Now in this course of lectures we shall take up only a few, because, if we looked over the fifty or sixty thousand different species, it would be more than a dozen lectures could possibly compass. We will, therefore, run through the groups from the lower to the higher.

I want to call your attention to the cryptogams, which are of economic value; seaweeds, lichens; fungus plants, the liverworts, mosses, ferns, and their allies. Indeed, we can lump these off in a very short time. We have here some of the very lowest forms of seaweed made up of single cells. Here we find frog spittle (conferoa). Here, also, we have some forms that are found along your coast. This is found on the rocks. This little berbet is the little microscopic plant which dodges about as can be seen under the microscope, with amazing velocity. These are more or less inclined to be green in color, though, of course, some found in salt water have other colors. Of substances practically useful to man they furnish only iodine, which is pretty largely derived from them and Irish moss. Of lichens I have put down here the two more important products, Litmus, which is obtained from a little plant belonging to this group, and Reindeer moss, found in Lapland, covering the ground, as does grass. In the northern region it is used as food for reindeer. The Liverwort, or the *Hepatica*, you may put down as of no use whatever or their only use being to cover the ground and by their dying to furnish food for other plants. The same may be said of the mosses and ferns, if we except the utility of beauty. The one exception in mosses is the *asphagnum*—possibly found here—which is used for packing. To that excepting

The Fungals.

The Cryptogams are of no economic interest. First, as to what a Fungal is? The common idea is incorrect. The Fungal is always a plant growing more or less under ground, or under some surface, made up of white threads growing in every direction under this surface, whether it be the surface of live wood, earth, or what not, growing in every direction through this surface and finally fruiting in some form. The true plants then we must consider the part which grows under the surface or under the ground. The puff ball as we find it is one of the fruiting forms.

A little more as to what this growth is beneath the surface. All cryptogams grow from spores. The spore falls upon the ground and is then only a little round cell. It begins its growth by multiplying and so has the form of elongated threads. These form the true plant. After a time, and this time may be likened to the time required by any ordinary plant, it sends up fruiting portions which we ordinarily observe. This may be taken as the usual manner of the re-production of Fungals.

Classification.

Fungals are divided into six groups, or orders, with the following characteristics. Spores in sacs. In sacs which are usually aggregated. Order I. *Helvellaceae*. In sporangia. Order II. *Mucoraceae*. Spores naked. On ends of conspicuous threads. Order III. *Botryllaceae*. On inconspicuous threads. Order IV. *Uredinaceae*. On threads, enclosed in a peridium. Order V. *Lycoperdaceae*. On an hymenium. Order VI. *Agaricaceae*.

Under the first order are quite a number of injurious plants and a few valuable ones. First we have pea mould, which in its manner of growth is about like this. (See figure 1.) Probably you have all noticed that a great many leaves, not only of the pea but of other plants, are covered with a white mouldiness. Take one of these leaves and place it under the microscope and you will find over the whole surface myriads of threads now and then passing into a stomate, and of course sucking the sap from the interior of the leaf. These little threads form the *mycelium*, the proper fungous growth. It covers the leaves, stops up the breathing pores, and in fact chokes the plant upon which it is living. After the plants become fully grown, then it produces these little spore cases. (See figure 1.)

By the use of a microscope of perhaps one

hundred diameters, you will find the leaf dotted over with little black dots. I have noticed on some of the plants on these grounds quite a number of remains of allied species. They are of quite considerable importance. Allied forms affect the rose, peach, pear and a great many other plants.

In many parts of the country plum, peach and frequently cherry trees are troubled with black excrescences, which are called

Black Knot.

This is the *spharia Mirloso*. We test fungous growths by finding the fruiting. For a long time people were at a loss to know what it was until finally some man found the spores borne in this way. Standing at right angles to the surface, we find elongated sacs in which are the spores. You need not think to succeed in finding them with an ordinary lens. It requires a very good section and a good microscope in order to find them.

The only remedy for black knot is to cut off the knots as they appear. It is the only remedy that is available. Your only safety is to cut down the tree, or to cut away the branches. The branches affected by the knot must be cut off a considerable distance below these excrescences, as the mycelium extends far below them. If a tree is found to be thoroughly infested, cut the whole tree down, and burn it up as soon as possible. All applications recommended are not much to be relied upon. I will notice a few hereafter. Now, as a sort of offset to this species of *Spharia*, in all parts of the world we have some which infest larvae of the beetle and many other insects, very many of which are killed by the mycelium growing through them, the larvae, and destroying them. That offset is again offset by another which takes hold of the silkworm occasionally.

The rye plant is very frequently known to grow into and take on a peculiar growth; that is, the grain instead of development into the rye grain, develops into a dark-colored elongated mass known as ergot, (the scientific name of which is *Claviceps purpurea*.) Two species of this order are used for food, and where they are used furnish the best edible from the Fungal group. In England, truffles—an underground growth—furnish a food of exceeding excellence. As it is not found here, we pass it by. The morel, however, is found here and throughout all the world in general appearance, about like this little sketch I have here, and is covered over with little pits. These are gathered when they are full grown, and are used very largely in eating. Its scientific name is *Morchella esculenta*.

Mucoraceae derives its name from its principal genus, *Mucor*, the mould which is found very largely upon bread, fruits, paste and such things. *Mucor mucedo*, the bread mould, consists of under-surface growth, made up of filamentous threads running in every direction, and finally sending up a little blue mould (as we call it); [see Fig. 2.] The general appearance is well shown in the figure.

Under the next division the spores are naked, and we have first this little *Aspergillus*, [Fig. 3.] It is sometimes found in the summer time on bread and pie. It first grows under the surface. At the top, instead of bearing sacs, it bears strings of spores. In *Aspergillus*, one of our common plants, this thread terminates in a very large ball, and upon this are little threads, while in *Penicillium*, these strings or threads pass off without having any of these large mats. These two, as I said before, are very common.

Penicillium Crustaceum

Is what is known as the vinegar plant. You will know that vinegar is the result of fermentation, and has in it always a stringy, peculiar substance, called the "mother of vinegar." It consists of long, thready masses. You have simply these fungus threads, corresponding to the ordinary mycelium of fungus plants. Taking any fermented substance, by the aid of a microscope you will find a multitude of little cells which resemble these. They take on an elongated form, and produce what we call the "mother" in vinegar; or, the mycelium. That is one form, and it may stay that way for an age, perhaps. It has been known to exist in that condition a great many years, just in that form. It finally changes its form into mycelium, which we consider to be the basis or real plant, in every form of *Fungi*. So, that you take a little yeast under proper conditions, and from the plant you have there you can grow what seems to be another plant. We have here a great many cases of dimorphism.

Finally, under proper conditions, it changes and passes into another line—changes into what is called the "mother of vinegar." We have there the proper fungus plant.

The Potato Rot Plant

Belongs also to this group, and I have shown in Fig. 4 its general character as seen under the microscope. One of these spores falling upon the leaf of the potato begins growing, grows just the same as this one. [See a, Fig. 4.] The production of this growth is mycelium. It passes down through the leaf-stalk to the stem; in fact, infests the whole plant. The result of this taking nourishment is, the cells of the potato plant are injured and rot sets in, and the whole plant in a very few days is destroyed. The potato may in the meantime be green, seeming healthy; the plants may have a strong and apparently vigorous growth, but in a very few hours they wilt down, blacken and decay, with a most fetid odor. We account for it in just this way: This mycelium has robbed all parts of the plant; by acting upon all parts of it, the plant is destroyed in this rapid way. Now, when you come to examine

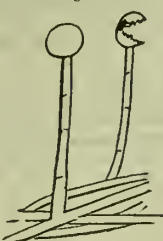
it under the microscope, you will find very few tufts project from the leaf of the potato; but remember that the real fungus plant is found in all its parts. It is an internal parasite then, and the part we see is the reproductive portion, and it fruits simply to provide for the continuance of the species. Generally we have placed in this group the grape-vine mildew. In Germany and a great many parts of the United States, grape-vines are troubled with a sort of mould called *Oidium*; and as a man by the name of Tucker, in England, investigated this pretty thoroughly, its name is now *Oidium Tuckerii*. It attacks leaves largely. Of course you are prepared to expect mycelium penetrating the plant also. Now, this form of fruiting will refer it to group No. III.

Fig. I.

Fig. II.



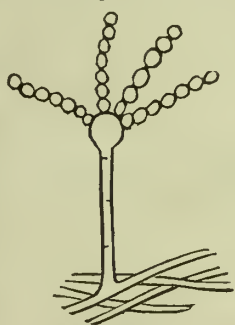
Erysiphe Martii.



Mucor.

We have these spores produced, and then again spores are blown to other plants. After a while it produces a second kind of fruit, similar to fig. 1. We consider the second kind as

Fig. III.

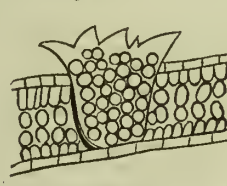


Aspergillus.

entitled to the preference. They are *Erysiphe*. The discovery was made within the last few years. This discovery carries it back to *Erysiphe*. In one of its forms it belongs to this genus *Oidium*, and we refer it then to *Erysiphe*

Fig. VI.

Fig. VII.



Uredo.



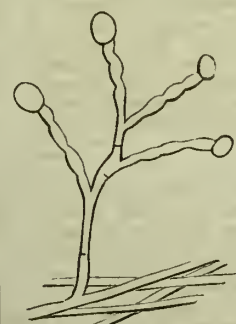
Puccinia.

Tuckerii. This will show the need of studying a plant's whole history.

In group No. IV, *Uredinaceae*, we have what are called cluster cups and I find myself embarrassed without specimens and will have to rely on the rude sketches upon the board. You

Fig. IV.

Fig. V.



Peronospora.



Aecidium.

will find occasionally the under surface of leaves covered over with little yellow appearances, which under an ordinary lens, will show themselves to be little cups. Take one of these little cups and cut it through, forming a vertical section, and its appearance will be similar to Fig. 5. This cup is found to be filled with myriads of little spores. We have here in the figure, the species *Berberidis*, the Barberry cluster cups. Now there is

A History Connected with this Rust.

In France, for a great many years, farmers complained that wherever barberry was grown it produced wheat rust. The railroad had run lines of barberry hedge along the sides of the track. The farmers complained, and did not want that barberry there. Wherever it was grown, wheat and other grains were found to be covered with rust. Botanists said it could not be barberry rust, because the two were so different. The farmers still complained, and finally the railroads concluded they would make an experiment and cut out a mile of the hedge; and after a while another mile; and so on, taking into consideration the direction of the prevailing winds. After examination, they came to the conclusion that the farmers were right and the botanists wrong. The cluster

cup *Aecidium* finally develops *Puccinia* just as the *Oidium* finally develops into *Erysiphe*. It is possible that De Baray may be wrong yet. There are some botanists who will not give in yet. Evidence seems to be very strong in his favor. Fig. 6 represents simply one form of its fruiting.

The fact is, there is another fruit also midway between these two—[Fig. 7]—first, *Aecidium* is produced on the barberry; second, round spores (*Uredo*); finally, elongated spores (*Puccinia*). That brings us to the elongated spores which produce

Wheat Rust.

Take a bit of stricken wheat, or heads of rye that are covered with rust, and you will find the stem having elongated, brownish patches; put a little of this brownish dust under the microscope, and you will find that it is made up of spores, with bodies elongated, having the shape of Fig. 6.

This is the *Puccinia graminis*; one of the most injurious we have; not because of the breaking out into the fruiting state—that does not do very much damage—but it is because of the mycelium. Notice whenever wheat is "struck with rust," as we call it, the heads do not fill well. Those little patches can not do much damage; the damage is done by this mycelium; this filamentous growth, probably all coming from a single spore, germinating and pervading the whole plant. You can very often tell just how far it went and how far down, by the patches of rust from bottom to top. It is this internal growth that does the most injury. It is not this "breaking out," as we call it.

I have been asked: "If you have watched this rust how is it that after certain hot, damp days, wheat and other grains are more likely to be affected by it?" The common opinion is that this rust is directly due to this dampness in the air. I have known a very good agriculturist to refer it to a morbid condition of the sap; the sap exuding and turning brown. There is nothing in it. These damp, hot days develop rust in just the same way that such days develop grass or any vegetable. That accounts for the fact, that always after such days we may look for a greater amount of this *Puccinia* upon the plants than at any other time.

NOTE.—All of the accompanying illustrations, with the exception of the toadstool, are highly magnified.

The Fruit Growers of Western New York.

One of our subscribers in Rochester, kindly sends us a report of the 20th annual meeting of the Western New York Horticultural Society, from which we gather some items which will be of interest to many of our readers:

The committee on shipping fruit reported the aggregate number of barrels of apples shipped during the year 1864 to be, in round numbers, 1,500,000, worth \$1.50 per barrel, exclusive of packages, or \$2,250,000. To this is added the value of other fruit shipped—\$750,000—and the value of fruit consumed at home, fed to stock, made into cider and wine, dried, and sold to near by markets without record; making an amount that is estimated at \$4,000,000, from nine counties of western New York.

Our Eastern friends complain as bitterly of extortionate rates of freight on fruit as do our own fruit growers. At the meeting alluded to, this subject was thoroughly discussed. They do not appeal to the magnanimity of the railroads in trying to secure a reduction of the freight tariff; their sole reliance is competition. They protest against paying the same freight on a barrel of apples that is charged on a barrel of potatoes, when the latter weighs a quarter more than the same bulk of the former, and is of less value. A committee was appointed to confer with railroad and express managers on the subject.

In regard to the best method of shipping fruits, the opinion of the members present was nearly unanimous that crates and half barrels were the best for finer fruits; but for larger quantities and low rates, whole barrels were declared to be more profitable.

This society numbers among its members some of the most prominent fruit growers and horticulturists of America; and the deliberations of such a meeting are worthy of consideration.

EXCELLENT CALIFORNIA FIGS.—John Taylor, our esteemed correspondent, of Mount Pleasant, Tuolumne county, sent us a box of black figs that were "a long time on the way." Too good to linger long in this wicked world, they were mostly dispatched in a few minutes by at least a dozen open countenances, in our business office and sanctum. No one had eaten quite so good a home cured article. We pass friend Taylor the premium for Tuolumne county, thus far. J. H. Hegler, of the Grange Dairy Produce and Commission Store, received a consignment of the same quality of figs from Mr. Taylor.

ON FILE.—"Farm House Chat," Mary Mountain; "From Farmington Grange," C. F. F.; "Letter from San Bernardino," D.; "From Round Valley," J. C.; "From Sacramento Co." G. R.; "The Poultry Show at Pittsburgh," W. C. Q.; "Trip Through Lake county," H. A. O.; "From La Grange, Stanislaus Co.," R. H.; "Review of P. S. Russell," P. H. M.; "Dress Reform" and "Take Good Care of Your Servants," V. A. R.

HORTICULTURE.

Florists' Flowers.

It would not be strange if our florists should be tempted to offer a "wave offering" to the god, Hymen, if what is asserted of a recent fashionable wedding be true, viz: that the floral decorations cost the round sum of \$5,000. Be this as it may, there is no denying the rapid increase of the demand for cut flowers, and that a winter supply for the home market promises to become one of the pleasantest and most profitable of our minor industries. The Easter flowers for Trinity church in the city of New York, have sometimes cost thousands of dollars—nearly all of them, such as calla lilies for instance, being the results of a forcing process to which we in more favored California are not obliged to resort.

Of all extravagances, this is one to which we would be lenient, but because we so love flowers, I respect their individualities—we object to the taste which is satisfied with mere profusion; even of the rarer and more delicate sorts. A description of a wedding in Chicago which occurred just before Christmas, expresses our ideas so nearly that we are tempted to quote it:

"The windows were framed in the beautiful 'running pine' of the northern woods, (*Lycopodium claratum*, and *complanatum*,) which will keep for months without losing its freshness.

"From hidden vases smilax and other delicate vines twined around the pictures, or depended from brackets covered with ferns and moss. But the marvel of it all was the curtains! They were so exquisitely trimmed with the most delicate ferns, stevias, and other white flowers that the effect was precisely as if the embroidery had become alive, burst into color and fragrance to add grace to the joyful occasion. The room did not look dressed up at all, everything was of the most airy lightness, and though the rarest and most costly hot house flowers were freely used, so that the rooms were delightfully redolent of their perfume, the arrangement was so judicious that they seemed not to have been put there for ornament, but to belong there as the pictures and statues do."

What a beautiful wedding might that be in which the bride going to her new home might find a conservatory stocked with lovely plants grown by loving hands for this furnishing. A person who does not scruple to pay five or ten dollars for a perishable bouquet, would often think a daphne dear at five dollars, and fee imposed upon if ten were charged for an orange tree in flower. So little heed is given to the real values of plants as objects of beauty, worthy of our permanent affection and care.

The flower trade is getting to be a fine business in the eastern cities for women and children. I mean to publish in the *RURAL PRESS* before long the market prices of violets, achimenes, tuberoses and all fine small blossoms which are required for bouquets. It was a delight to me to see the flower wagons unloaded in the Philadelphia market. Flowers and strawberries used to make up the loads. Rose huds cut with generous stems and tied up in dozens. Spurias, tea roses, raisin culuses, daisies—a great many in small pots, too, were ranged on the stalls between banks of vegetables which made one's mouth water. Crisp lettuces, and coral radishes, and pearly onions; every stall was a picture which a Dutch painter would have loved to copy.

The flower market is a gauge of our civilization. It is not the great outlay of the capitalist which determines it; but the number of people who will have their window, garden and fernery, who do not feel dressed without the button hole nosegay, and who rest themselves with a few old favorites in the wee bit of a garden at the rear of the house.

As gifts, for birthday and other domestic festivals, living and growing plants are appropriate. A small warden case is a very charming gift for a young lady. There is a young bachelor in Oakland who surprised me not a little by telling me that he was building a Fernery, and had now growing all the California ferns. I have seen miniature warden cases in which seedlings from fern spores sent in letters from the old world were growing—where the whole apparatus was not larger than a tea cup. A dear old lady who has passed into the green fields beyond the swelling flood, told me she had a cupboard with a glass back to it; fastened outside of one of the French windows of her dining room, that she might enjoy gardening in doors when the infirmities of age prohibited more extended pleasures. Let us thank God for the endless pleasures and utilities of world of vegetable forms. Age cannot wither, nor custom stale their infinite variety.

J. C. C.

FRUIT CANNING.—The Grass Valley Union is urging the fruit growers of that vicinity to unite in building a fruit canning establishment, to utilize the surplus product of their orchards. Good advice.

Bullion Product of 1874.

In order that the farmers may know what their mining friends have accomplished during the past year we give the following statistics of bullion production for 1874:

The total bullion product of the Pacific States and Territories for the year 1873 was \$72,258,693. This year it was \$74,401,055 showing an increase of \$2,142,362 over 1873. Jno. J. Valentine, General Superintendent of Wells, Fargo & Co.'s Express, who computes the most reliable statistics on this point writes as follows:

We hand you herewith a copy of our annual statement of precious metals produced in the States and Territories west of the Missouri river, including British Columbia, during 1874, which shows an aggregate yield of \$74,401,055, being an excess of \$2,142,362 over 1873. California, Nevada, Utah, Colorado and British Columbia increased; Oregon, Washington, Idaho, Montana, Arizona and Mexico (west coast) decreased. The increase in Nevada and Colorado is merely nominal, but in California and Utah it is \$3,100,000, three-fourths of which is to the credit of California.

STATES AND TERRITORIES.	Gold Dust and Bullion by Express.	Gold Dust and Bullion by other Conveyances.	Silver Bullion by Express.	Ores and Base Bullion by Freight.	TOTALS.
California.....	\$16,015,658	\$1,601,556	\$967,857	\$1,715,520	\$20,300,531
Nevada.....	34,659,283	30,934,602	30,934,602	32,492,293	\$69,070,000
Oregon.....	143,996	143,996	143,996	143,996	573,984
Washington.....	1,207,667	120,766	120,766	1,207,667	2,636,866
Idaho.....	2,681,362	268,136	268,136	2,681,362	5,911,778
Montana.....	23,333	23,333	23,333	23,333	93,332
Arizona.....	1,600,700	1,600,700	1,600,700	1,600,700	6,402,800
Colorado.....	84,665	84,665	84,665	84,665	338,660
British Columbia.....	1,487,473	148,747	148,747	1,487,473	3,272,440
Grand Total.....	\$24,114,833	\$2,233,943	\$36,681,411	\$12,380,806	\$74,401,055

In our statement for 1873 we referred to the yield—\$72,258,693—as “undoubtedly the largest, for one year, in the history of the coast.” The accuracy of the statement has been questioned, and the yield of 1853 referred to as being greater. Dr. Linderman, Director of the U. S. Mint, whose information is probably as reliable as may be had, names \$65,000,000 as the amount produced in 1853, and that amount was not exceeded until 1873, which is now exceeded by 1874, and the recent developments on the Comstock lode justify the belief that the total product for 1875 will approximate \$80,000,000.

We append to this a comparative table, showing the bullion yield for the past three years as follows:

	1872.	1873.	1874.
California.....	\$19,049,988.24	\$18,052,923	\$20,300,531
Nevada.....	25,548,041.00	35,252,507	25,452,233
Oregon.....	1,305,044.92	1,376,389	609,070
Washington.....	229,051.06	209,335	155,335
Idaho.....	2,514,089.78	2,341,654	1,880,004
Montana.....	4,442,134.90	3,889,800	3,439,498
Utah.....	3,521,020.09	4,106,337	5,911,278
Arizona.....	143,770.00	47,788	26,066
Colorado.....	3,001,750.85	4,083,268	4,191,405
Mexico (W Coast).....	5,957,180	886,798	798,878
British Columbia.....	1,350,074	1,250,035	1,636,557
	\$62,376,914	\$72,258,693	\$74,401,055

This makes a total bullion product for three years, including the west coast of Mexico and British Columbia, which do not properly belong in the table, of \$208,896,762. This is a very good showing, and is one to be proud of.

The receipts of treasure in this city for 1874 is given as follows by Mr. Valentine:

1874	Silver Bullion.	Gold Bullion.	Coln.
January.....	\$ 959,962	\$583,195	\$820,487
February.....	1,699,461	530,424	714,944
March.....	1,605,863	619,259	706,662
April.....	1,863,418	801,330	729,246
May.....	1,971,458	949,139	907,677
June.....	1,973,575	855,856	1,320,472
July.....	1,464,179	916,193	1,025,573
August.....	1,495,898	918,082	934,118
September.....	1,453,367	799,978	1,047,613
October.....	1,627,368	767,147	1,222,115
November.....	1,574,972	622,034	1,049,395
December.....	1,118,917	543,138	1,202,276
Total.....	\$18,905,448	\$8,897,471	\$11,643,979
In 1873.....	12,177,698	10,052,123	9,515,385

There has been less gold and more silver. The sources of the receipts last year are annexed:

From northern and southern mines.....	\$34,621,330
From northern coast route.....	2,206,212
From southern coast route.....	601,457
From Mexico.....	2,007,899
Total.....	\$39,436,898
In 1873.....	31,855,208
In 1872.....	33,442,737

We append a table showing the total gold and silver production of this coast since California was first settled by the Americans. The figures are such as to astonish those who have no idea of the amount of mining done here. About 20 per cent. is added to Wells, Fargo & Co.'s figures to cover bullion conveyed by other means.

Year.	Total Gold and Silver Production.		Total.
	Gold.	Silver.	
1848.....	\$5,000,000	.....	\$5,000,000
1849.....	23,000,000	.....	23,000,000
1850.....	59,000,000	.....	59,000,000
1851.....	60,000,000	.....	60,000,000
1852.....	69,000,000	.....	69,000,000
1853.....	68,000,000	.....	68,000,000
1854.....	64,000,000	.....	64,000,000
1855.....	58,000,000	.....	58,000,000
1856.....	64,000,000	.....	64,000,000
1857.....	59,000,000	.....	59,000,000
1858.....	59,000,000	.....	59,000,000
1859.....	59,000,000	.....	59,000,000
1860.....	52,000,000	\$90,897	\$52,090,897
1861.....	50,000,000	2,275,256	\$52,275,256
1862.....	52,000,000	6,247,014	\$58,247,014
1863.....	57,000,000	12,486,238	\$69,486,238
1864.....	55,967,605	16,797,585	\$72,765,190
1865.....	57,000,000	16,184,877	\$73,184,877
1866.....	61,000,000	18,000,000	\$79,000,000
1867.....	53,000,000	22,000,000	\$75,000,000
1868.....	51,000,000	16,000,000	\$67,000,000
1869.....	47,000,000	16,000,000	\$63,000,000
1870.....	48,000,000	28,000,000	\$76,000,000
1871.....	42,357,000	22,245,000	\$64,602,000
1872.....	42,688,103	27,548,811	\$70,236,914
1873.....	35,400,000	44,600,000	\$80,000,000
1874.....	43,400,000	56,600,000	\$100,000,000

Total.....\$1,382,309,508 \$294,076,678 \$1,681,386,186

The production by States and Territories is shown in the following table:

Year.	California.	Nevada.	Montana.	Idaho.
1848.....	\$ 5,000,000	.....	.....	.....
1849.....	23,000,000	.....	.....	.....
1850.....	59,000,000	.....	.....	.....
1851.....	60,000,000	.....	.....	.....
1852.....	69,000,000	.....	.....	.....
1853.....	68,000,000	.....	.....	.....
1854.....	64,000,000	.....	.....	.....
1855.....	58,000,000	.....	.....	.....
1856.....	64,000,000	.....	.....	.....
1857.....	59,000,000	.....	.....	.....
1858.....	59,000,000	.....	.....	.....
1859.....	59,000,000	.....	.....	.....
1860.....	52,000,000	90,897	.....	.....
1861.....	50,000,000	2,275,256	.....	.....
1862.....	52,000,000	6,247,014	.....	.....
1863.....	57,000,000	12,486,238	.....	.....
1864.....	55,967,605	16,797,585	.....	.....
1865.....	57,000,000	16,184,877	.....	.....
1866.....	61,000,000	18,000,000	.....	.....
1867.....	53,000,000	22,000,000	.....	.....
1868.....	51,000,000	16,000,000	.....	.....
1869.....	47,000,000	16,000,000	.....	.....
1870.....	48,000,000	28,000,000	.....	.....
1871.....	42,357,000	22,245,000	.....	.....
1872.....	42,688,103	27,548,811	.....	.....
1873.....	35,400,000	44,600,000	.....	.....
1874.....	43,400,000	56,600,000	.....	.....

Total.....\$1,143,620,000 \$254,245,866 \$126,535,998 \$62,455,525

Year. Or & Wash. Utah. Other Ter.

1864.....	\$1,493,520	.....	.....
1865.....	1,395,300	.....	.....
1866.....	3,000,000	.....	.....
1867.....	3,000,000	.....	.....
1868.....	4,000,000	.....	.....
1869.....	3,000,000	.....	.....
1870.....	3,000,000	1,300,000	.....
1871.....	2,500,000	2,900,000	.....
1872.....	2,131,086	6,125,152	.....
1873.....	1,600,000	9,000,000	.....
1874.....	1,500,000	10,000,000	.....

Total.....\$26,619,906 \$31,725,152 \$60,183,676

Some idea of the amount of money handled here may be had from a brief review of the operations of the mint in this city during 1874. The amount coined at the San Francisco branch mint in 1874 was \$27,329,000, against \$22,075,400 in 1873, an increase of \$5,253,600. Of the coinage last year, \$24,460,000 was in gold, and \$2,867,000 was in silver. During the same time the mint at Carson coined \$2,620,775 in gold, and \$1,411,781 in silver, making a total for both mints of \$31,418,265.

The operations of the San Francisco assaying and refining works were as follows for 1874:

Months.	Ounces.	Gold.	Value.
January.....	66,754.65	\$1,368,442.97	
February.....	84,914.50	1,761,610.70	
March.....	86,493.24	1,779,861.30	
April.....	85,161.68	1,745,840.03	
May.....	25,925.40	526,038.10	
June.....	126,928.93	2,596,790.65	
July.....	127,369.29	2,608,863.95	
August.....	130,838.19	2,681,257.48	
September.....	119,964.59	2,444,153.55	
October.....	105,855.28	2,170,051.15	
November.....	94,130.47	1,815,888.39	
December.....	93,440.06	1,915,359.66	
Totals.....	1,157,726.28	\$22,724,108.52	

It is but just to say in connection with the table of bullion product given above, that figures they are compiled with care by Mr. Valentine, and are approximately correct. Nevertheless, they should be much larger from the nature of things. These figures represent the bullion, gold-dust, etc., which passes through the hands of Wells, Fargo & Co. as common carriers. Fully 20 per cent. should be added, however, for the sum which passes from the mines by private bands, and other modes of conveyance than Wells, Fargo, & Co. This being the case, if we deduct Mexico and British Columbia from the aggregate, it will still be much larger than is shown in the above table.

The next important question is that of Mining Dividends.

As it has an intimate connection, of course, with the bullion product. We give a comparative table showing the dividends from mining companies called on the Stock Boards in this city:

	1872.	1873.	1874.
Belcher.....	\$2,184,000	\$6,762,000	\$5,304,000
Black Bear.....	.....	45,000	69,000
Crown Point.....	1,800,000	5,100,000	3,400,000
Cons. Virginia.....	.....	.....	2,592,000
Cons. Amador.....	36,000	.....	.....
Cedarberg.....	56,000	24,000	.....
Chollar.....	.....	.....	51,000
Chariot Mill.....	.....	.....	.....
Eureka.....	40,000	300,000	.....
Eureka Cons.....	.....	200,000	125,000
Golden Chariot.....	.....	85,000	.....
Keystone Quartz.....	30,000	.....	.....
K. K. Cons.....	.....	62,500	.....
La Grange.....	.....	12,500	.....
Meadow Valley.....	360,000	180,000	.....
Monitor Belmont.....	.....	75,000	.....
Imeson.....	.....	60,000	.....
Mahogany.....	15,000	.....	.....
North Star.....	27,000	.....	.....
Pioche.....	40,000	.....	.....
Providence.....	3,100	.....	.....
Raymond & Ely.....	2,070,000	300,000	.....
Redington Quick.....	.....	.....	264,000
Yule Gravel.....	10,000	.....	.....
Total.....	\$6,730,100	\$13,366,000	\$11,805,000

In summing up the above only those mines are taken into account which advertise their dividends in this city. All the above mentioned are on the lists of the Stock Boards, except the Redington Quicksilver, Minnesota and the Black Bear. A falling off is shown in the dividends this year, which is principally due to the decrease of the dividends of the Belcher and Crown Point. It will be noticed by even the casual observer that not one gravel mine is represented in the figures of dividends for this year. This fact alone goes to show how unsatisfactory it is to base any calculation on the dividend list published. Of the hundreds of private corporations mining profitably, not one is mentioned. Some of these mines, like the Idaho at Grass Valley, are what is known as "close corporations," the stock being held in few hands and the mines worked as mines and not as a stock jobbing operations.

We can mention the following prominent California mines, only one of which is on the Stock Board which have yielded \$2,996,503 from 187,391 tons of ore, this year, making nearly \$300,000 each on the average, yet no mention is made of them in the dividend list published. They are as follows: Idaho, Eureka, Black Bear, Plumas-Eureka, Sierra Buttes, Sumner, Hite's mine, Keystone, Empire. We shall speak more in detail of these mines further on. The following table gives an account of all the dividends disbursed by the different mines called in the Stock Board from its organization, up to January 1, 1875:

Belcher.....	\$14,135,000
Crown Point.....	11,388,000
Cons. Virginia.....	2,592,000
Chollar.....	3,080,000
Confidence.....	78,000
Chariot Mill.....	51,000
Cedarberg.....	100,000
Cons. Amador.....	210,000
Dancy.....	56,000
Eureka.....	2,494,000
Empire Mill.....	713,500
Eureka Cons.....	675,000
Gould & Curry.....	3,826,800
Golden Chariot.....	50,000
Hale & Norcross.....	1,598,000
Imperial.....	1,067,500
Ida Elmore.....	60,000
Keystone Quartz.....	30,000
Kentuck.....	1,252,000
K. K. Cons.....	62,500
Meadow Valley.....	1,200,000
Mahogany.....	15,000
Monitor Belmont.....	75,000
Ophir.....	1,394,400
O. H. Treasure.....	31,320
Pioche.....	60,000
Raymond & Ely.....	3,075,000
Rye Patch.....	22,500
Sierra Nevada.....	102,500
Succor.....	22,800
Savage.....	4,460,000
Yellow Jacket.....	2,184,000
Yule Gravel.....	40,000
Total.....	\$56,261,499

DISINTEGRATION OF GLASS.—A correspondent of the Boston Journal of Chemistry recently forwarded to that journal some small flakes of glass, which were taken from an empty fruit can. The can was filled in the summer of 1873 with red Antwerp raspberries, in the usual way of canning fruit. The fruit was used out last winter, and the can cleaned and set away for future use. During the following summer when wanted for use again a "table-spoonful" of small thin flakes of glass were found in it. The can was emptied and again set away to see the result, and soon afterward flakes were again found in the can, while the glass of the can still continued to look clear and transparent. The editor of the Journal of Chemistry has satisfied himself that the flakes are genuine glass and considers the spontaneous disintegration of the glass is certainly singular, but not altogether without precedent. The same result has been observed in ammonia bottles left dry, and in some other instances. The change is not liable often to occur, but it may be well to examine glass fruit cans carefully, before using them.

SOMETHING NEW FOR THE SICK ROOM.—Under the name of pulmonic candles, Field & Co., English chandlers, have introduced candles containing in their substance some of those gum resins, and balsams, especially benzoin and storax, which from time immemorial have proved useful in chronic bronchitis and allied maladies. When burnt, the candles yield by the combustion of these drugs, a pleasing fragrance, and at the same time, give a good light. Candles are not much used in this country, but the idea might be adapted by the medication of kerosene. The aromatic odor alone would be an improvement of the fragrant combustible.

DIVIDEND NOTICE.

The Farmers' and Mechanics' Bank of SAVINGS have declared a Dividend for the half year ending December 31, 1874, at the rate of ten per cent. per annum on term, eight per cent. per annum on class one ordinary, and six per cent. per annum on class two ordinary deposits, payable on and after January 15th, 1875. By order G. M. CONDER, Cashier.

BREEDERS' DIRECTORY.

PURCHASERS OF STOCK WILL FIND IN THIS DIRECTORY THE NAMES OF SOME OF THE MOST RELIABLE BREEDERS. OUR RATES.—Six lines or less inserted in this directory at 50 cts a line per month, payable quarterly.

CATTLE.

R. ASHBURNER, Baden Station, San Mateo Co., Cal., breeder of Short-horn cattle. Pure Bred Bulls for sale, from cows of choice milking strains.

J. BREWSTER, Galt Station, Sacramento Co., Cal., breeder of Short-Horn Cattle.

J. D. CARR, Gabilan, Monterey Co., Cal., breeder of Trotting Horses, Short-Horn Cattle, Thoroughbred Spanish Marino Sheep and Swine.

A. MAILLAIRD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.

W. L. OVERHISER, Stockton, San Joaquin Co., Cal., breeder of Short-Horn Cattle and Berkshire Swine.

STANTON & POWERS, Sacramento, Cal. Choice Jersey Heifers at reasonable rates. Address L. C. Powers, Sacramento, Cal.

MOSES WICK, Oroville, Butte Co., Cal., breeder of Short-Horn Cattle. Young bulls for sale.

SHEEP AND GOATS.

MRS. ROBERT BLACOW, Centerville, near Niles Station, Alameda Co., Cal. Pure-Blooded French Merino Sheep for sale.

THOS. BUTTERFIELD & SONS, Hollister, San Benito, Cal. Importers and breeders of Angora Goats and Sheep.

N. GILMORE, El Dorado, El Dorado Co., Cal., importer and breeder of Angora Goats.

LANDRUM & RODGERS, Watsonville, Santa Cruz County. Pure-Bred Angora Goats and Cotswold Sheep for sale.

SEVERANCE & PEET, Niles, Alameda Co., Cal., breeders of Thoroughbred Spanish Merino Sheep.

A. G. STONESIFER, Hill's Ferry, Stanislaus Co., Cal., breeder of Pure-Blooded French Merino Sheep.

POULTRY.

GEO. B. BAYLEY, Cor. 16th and Castro streets, Oakland, Cal. Imported Brahmas and other choice Fowls for sale.

ALBERT E. BURBANK, 43 and 44 California Market, San Francisco, importer and breeder of Fancy Fowls, Pigeons, Rabbits, etc.

M. EYRE, Napa. Bronze Turkeys, Emden Geese, Choice Fowls, Pigeons, Rabbits, Ferrets.

Mrs. L. E. McMAHAN, Dixon, Solano Co., Cal. Bronze Turkeys now ready for sale from the best imported stock; also eight varieties of choice Chickens; Eggs in season can be purchased very reasonably.

Mrs. L. J. WATKINS, Santa Clara. Premium Fowls. White Leghorns, S. S. Hamburg, Game Bantams, and Aylesbury Ducks. Also, Eggs. 21v8-3t

C. W. WILSON, San Francisco. The largest and heaviest Bronze Turkeys the world ever saw. One pair, 19 months old, over 72 pounds now. I offer for sale extra large Toms, old or young; also Eggs. Correspondence solicited. Address C. W. Wilson, P. O. Box, 1874, San Francisco.

SWINE.

A. T. HATCH, Suisun City, Cal., breeder of Poland China Swine.

DAWSON & BANCROFT, U. S. Live Stock Exchange, S. E. Corner 5th and Bryant streets, San Francisco. All kinds of Common and Thoroughbred stock always on exhibition and for sale.

Poultry Breeders.

BRONZE TURKEYS.

THE HEAVIEST IN THE WORLD.

MY SPECIALTY.

I was the first man on this Coast to import and breed mammoth Bronze Turkeys. I have as progeny of my imported birds, the largest single Tom, Hen and pair or trio of Turkeys, for their age, that the world ever saw. One pair, 19 months old, now weigh over 72 pounds; Toms 40 pounds and over, Hens 30 to 30 pounds. This is not what the birds weighed six months since or what they weigh when fattened, but what they weigh now as they run with the flock. During the coming season I propose to sell eggs for hatching from this stock; the eggs will be packed in my improved shipping box, which carries safely. Orders now received for early Spring delivery. I can spare a few extra large Toms; also, a few pair of great size. Weight guaranteed or no sale. I offer fowls and eggs from my very fine and choice collection of Brahmas, Cochins, Leghorns, Houdans, Ducks, etc. My yards contain the best strains of the above varieties. For further information apply to

C. W. WILSON,

P. O. 1874.

San Francisco.

LOOK!

ALBERT E. BURBANK, Importer and Breeder of Fancy Fowls, Pigeons, Rabbits, etc. Also Eggs for hatching from the finest of imported stock. Eggs and Fowls at reduced prices. Send for Price List.

ALBERT E. BURBANK, 1v8-3m 43 & 44 Cal. Market S.F.

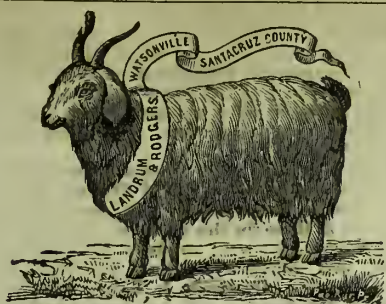
WHITE LEGHORNS.

I make these fowls a specialty and have spared no pains or trouble in procuring stock from the finest strains in the United States, and now offer eggs for hatching at Eastern prices from the finest fowls on the Pacific coast. They are small eaters, non-setters and very hardy, and for eggs are without a rival, being almost constant layers, and are truly styled the "farmer's fowl." Eggs, \$3 per dozen, (13) or six dozen for \$15. Securely packed to carry any distance, and delivered to the express on receipt of price. Cash to accompany order and orders taken in rotation.

W. J. HUNT,

Sebastopol, Sonoma county, Cal.

Live Stock Notices.



We respectfully invite the attention of wool growers to our fine stock of Cotswold Sheep and Angora Goats. We have 200 head of Pure Breed Angoras to select from; we have some of the finest Goats in America; we guarantee everything we sell to be as represented; our prices are as low as any in America for the same grade of stock. Call and see, or address,

LANDRUM & RODGERS,

13v7-cow-tf

Watsonville, Cal.

REEDVILLE HERD.

PROPRIETOR,

S. G. REED. - - Portland, Oregon.

I have for sale, Shorthorns of the most approved and fashionable families; among them are a few one year old Bulls of great merit, the produce of Cows imported direct from England, and sired by the renowned Mantaini bull, GOVERNOR GENERAL, 10,156, A. H. B., Vol. X, p 175. Also on hand,

AYRSHIRE CATTLE,

COTSWOLD AND

LEICESTER SHEEP,

AND BERKSHIRE PIGS.

of the highest standard. For particulars apply to

S. G. REED, Portland, Oregon,

Or **WM. WATSON,** Hillsboro, Oregon.

1v9-9w-tf.

12 Short-Horn Bulls,



fat and sleek, thoroughbred, just from Kentu ky, at SAXE'S Stables, 35 Ritch Street, between Folsom and Harrison, two blocks from Grand Hotel. Inquire at SAXE'S Stables, or Room 32 Russ House. 3v9-3m

FOR SALE.

A pair of thoroughbred Che ter White Hogs, one year old. **A. B. ROWLEY,** Mayfield, Santa Clara Co., Cal.

JACKS FOR SALE.

Two fine Jacks, one four and the other five years old, large and likely sired by old Samson, and of the best Kentucky Jinnetts; the best stock of the kind in the State. Address **B. C. EPPERSEN,** Bear Valley, Colusa County, Cal. 2v9-2m

Lands and Homes for Sale.

NINE FINE FARMS FOR SALE.

Near Middletown, Lake county, containing respectively 1600, 1100, 600, 300, 200, 200, 130 and 80 acres. The most of these places contain as fine land as there is in California, and the home market averages twenty per cent. higher than San Francisco. When we take into consideration the quality of the soil, certainty of crops, the market caused by the development of mines and the Mineral Springs, the climate and privileges of schools and religious society, we are satisfied that no such inducements can be offered in any other part of the State, to those desiring to purchase land.

Having examined all these places personally, we can give a minute description of each. Apply to

JOSEPH PETTIT,

or **WM. GORDON,** No. 215 Kearny Street, Up Stairs, Ring the Bell. 3v9-tf

FOR SALE.

HOMESTEAD AND FRUIT ORCHARD

About thirty-five miles from Stockton, containing three acres of land, a good house of eight rooms, good well, etc. Over two hundred fruit trees all in fine bearing order; such as Peach, Pear, Apricot, Apple, Plum, Figs, Oranges. A fine chance and a good market. Price, \$1,800. Title perfect. Apply to

GEO. W. CHAPIN,

434 Montgomery street, S. F., or this Office.

FOR SALE.

In the Riverside, Now England and Santa Ana Colonies, in the valley of the Santa Ana river, San Bernardino county, California, twenty thousand (20,000) acres of clean, rich, level, valley land, with an abundance of water for irrigation. There is no better land in the State for the orange and all other semi-tropical fruits, and no finer climate in the world. Inquire of **W. T. SAYWARD,** 420 Montgomery street, San Francisco; **S. O. EVANS,** Fort Wayne, Indiana; **C. I. HUTCHINSON,** 314 California street, San Francisco; **L. UPSON,** General Agent, Riverside, San Bernardino county, Cal.

CENTINELA COLONY

LOS ANGELES CO. CAL.

SIX MILES WEST OF LOS ANGELES, CAL.

The unparalleled success of the

LOMPOC COLONY,

SANTA BARBARA COUNTY.

Has induced the "Centinela Land Company of Los Angeles" to subdivide and place in market for sale and settlement, under the direction and management of the "California Immigrant Union," of San Francisco, the "Centinela and Sausal Redondo" Ranches, containing Twenty-five Thousand Acres of Beautiful Valley Land, located seven miles west of the city of Los Angeles, and extending to and fronting on the Pacific Ocean. There is now on the tract an orchard of about three hundred acres, containing Orange, Lemon, Lime, Fig, Walnut, Almond and Olive trees, and a nursery of young Orange and Lime Trees. Some of the Orange and Lime trees are in bearing. The tract will be subdivided in twenty, forty, eighty, one hundred and sixty-acre farms, and sold upon easy terms and long credits.

Auction Sale of Town Lots

—AND—

5, 10, 20 and 40 ACRE FARMS.

WILL COMMENCE ON

Monday, Feb. 15, 1875, at 12 o'clock, M.

And continue Five Days. The sale will take place on the Rancho. Parties desiring to purchase should be on the ground a few days prior to the sale, in order to examine the property. Title—United States patent.

SITUATION.

"Centinela," with the addition of the "Sausal Redondo," contains 25,000 acres. The boundary of the Rancho commences three and a half miles from the city limits of Los Angeles, and extends to the Pacific Ocean.

TOPOGRAPHY.

"Centinela" is made up of one broad, level, fertile valley, of over twenty thousand acres, and beautiful fertile rolling hills near the ocean.

SOIL.

The soil is an exceedingly fertile loam, and is, without exception, the richest and most productive in Southern California. Its vicinity to the ocean insures a crop without irrigation. Excellent wheat has been raised for the last two years upon the hills adjoining the ocean. This wheat field contains 1,000 acres, and covers the lightest soil upon the Rancho. There is no alkali or barren land.

SEMI-TROPICAL FRUITS.

There are a few bearing orange and lime trees upon the Centinela, and the fruit they produce is of the largest and finest quality. There is an orchard containing 6,000 orange trees, three years old, and 1,700 almond, lime and lemon trees. The almond, lime and lemon trees will bear fruit in 1875. The orange trees will bear in five years. There are 7,000 three-year-old orange trees in the nursery near the orchard. Fig, pepper and gum trees grow without irrigation. The entire orchard can be taken care of by three men with six horses. The orchard will be kept undivided by the company, to save the expense of each shareholder having a few trees to take care of. The almond, lime and lemon trees will yield an immediate return. In five years each orange tree will produce \$20 per annum, or \$300 per share for those now planted. There are flowers in the garden in bloom every day in the year.

SHEEP.

A flock of about 14,000 sheep will be kept undivided, to save expense to the shareholders. The sheep will produce in increase and wool over \$2 each, yearly, over expenses. They will be grazed upon outlying and unsold lands of the company. The "No Fence" Law is in force in Los Angeles County.

CLIMATE.

The climate of the "Centinela" is without exception the finest and most equable in the world. It varies but little throughout the year. The mean temperature is about 60 degrees. The mercury falls but little below 60 in winter and rises but little above 60 in summer. You sleep under one pair of blankets and with your bed-room window open every night in the year.

AGRICULTURE.

The soil of the "Centinela" is admirably adapted for all kinds of grain, vegetables and fruit.

WATER.

The Centinela creek rises upon the Rancho and runs through the northern portion of the tract. It affords an abundance of clear spring water. The source of the Centinela creek consists of several natural artesian springs, showing that artesian water can be obtained by boring.

THE TOWN.

A square mile is laid off at an eligible point on the tract, with lots 31x135; avenue 100 feet, and streets 80 feet wide. A stream of water can be brought in so as to supply every lot with crystal, cool, sweet water. One of the forty-acre tracts is set apart for a College and Farm School, and there will be a Ten-acre Park on each of the four sides of the town, and Four Blocks in the center of the town for Public Buildings, Schools, etc. A large lot will also be set apart for each Religious Denomination, and a block given for the erection of a large hall by the different Fraternal, Grange and Temperance Societies.

FARE.

Parties desiring to visit the Rancho can take the 8:10 A. M. train of the Southern Pacific Railroad to Soledad, thence by Coast Line Stage to Los Angeles; by 4 P. M. train to Bakersfield, thence by stage to Los Angeles; or by Pacific Mail Co.'s and Goodall, Nelson & Perkins' steamships direct to Los Angeles, where conveyances can be had to go to the Rancho free of charge.

RAILROADS AND WHARF.

The Company intend building a wharf to enable Steamships from San Francisco and other places to land passengers on the tract. A narrow-gauge railroad will be built from Los Angeles to the wharf, a distance of about 12 miles. The Main Street and Agricultural Park Railway will soon be built to the park, about — miles from the tract. This railway will be extended to the tract as soon as the settlement will justify it. Lithographed maps can be had at the office in San Francisco. Apply to **W. H. MARTIN,**

General Agent California Immigrant Union, 534 California street, between Montgomery and Kearny streets, San Francisco, to **TEMPLE & WORKMAN**, Bankers, or **GEN. SHIELDS**, Los Angeles, or **O. L. ABBOTT**, Corresponding Secretary State Grange Immigrant Aid Association, Santa Barbara.

P. S.—A second sale will take place on the Rancho, commencing on Monday, the 8th of March, 1875.



5,500 ACRES

Of the best portion of the old NOMELOCKE RESERVATION, in Tehama County, for sale very low; only five dollars per acre; one-third down, one-third in one year and one-third in two years, with interest at one per cent per month. Will be sold all together or in two parcels. This is one of the finest tracts of grazing land in Northern California; is abundantly watered by numerous perpetual springs and has two miles of the Elder Creek, a clear mountain stream. Its grass never fails from drought, and is of the best quality for sheep and has no clover burr. 800 acres of level plow land; timber for posts, fuel, etc. Enquiries of **ALLEN WILCOX**, Los Angeles, or **F. B. WASHINGTON** on the tract, twenty miles west of Tehama.

For Bleaching or Washing In Cold or Warm Water.

FALKINBURGH & CO'S

GRANGER SOAP

HAS NO EQUAL.

Don't fail to give it a trial, and be assured of a saving of money, time and labor. It speaks for itself. Warranted to accomplish more and do greater execution than any other soap. It is pressed, wrapped and perfumed.

ONCE USED, ALWAYS USED.

Sold by the principal Grocers throughout the country. Manufactured by

FALKINBURGH & CO.,

Oregon St., below Front, bet. Washington and Jackson, San Francisco, Cal. 4v9-10p

POISON!

POISON

WAKELEE'S PATENTED

Granulated Squirrel Exterminator.

A NEW AND MOST DESTRUCTIVE POISON FOR THE WORST PEST OF CALIFORNIA.

For years the farmers of the Pacific Coast have been spending money in experimenting to find a safe, cheap and efficient way of ridding their grain fields of their worst enemy, THE SQUIRREL, which destroy Millions of Dollars' worth of grain every year; and unless a strong and combined effort is made to kill them off, they will become more numerous every year.

Wakelee's Granulated Squirrel Exterminator

Is just the thing the farmers of California have been looking for. It is SURE DEATH. One or two grains of it will kill a Squirrel so quick that if it is five feet from his hole it dies before it gets there. The Poison is put up dry and in granular form, and easily handled; in one pound tins at \$1 per pound. It goes a great way, as 10 to 15 grains of it are sufficient to place at each hole. Also successfully used for killing Gophers and Rats. It has been thoroughly tested in different parts of the country, and gave universal satisfaction. It is kept and sold by druggists and dealers generally through the country. The following are some of my testimonials, viz:

SANTA CLARA, April 20th, 1874.

H. P. WAKELEE, Esq.:—Your Squirrel Exterminator was used according to your directions, on my Quito Farm with excellent success, and in my estimation is just the thing the farmers want to kill their Squirrels. **J. R. ARGUELLO.**

SAN LEANDRO, Cal., April 3d, 1874.

H. P. WAKELEE, Esq.:—Dear Sir: I have given your Squirrel Exterminator a fair trial and find it to be an economical and very destructive preparation and I can safely recommend it to our farmers. Yours, **J. M. ESTUILLLO.**

DOUGHERTY STATION, Alameda Co., Cal.

MR. H. P. WAKELEE, San Francisco: I have used your Squirrel Poison and found it to be just what you claim for it. It is sure death. Yours, **O. M. DOUGHERTY.**

H. P. WAKELEE, Druggist,

Cor. Montgomery and Bush streets, S. F.

Hooper's South End Grain Warehouse.

Japan and Townsend Streets.

SAN FRANCISCO, July, 1874.

I beg to inform you I have leased the above first-class Fire-Proof Brick Warehouse, now being erected by Geo. F. Hooper, Esq., and will be ready to receive storage on the 1st of August. This warehouse offers superior inducements to parties desiring to store grain and flour, as it is situated on the Water Front, and on the line of the O. P. R. R. and S. P. R. R. It is well ventilated, rat proof, and combines all the modern advantages and improvements. Yours respectfully, **JOHN JENNINGS.** Advances and insurance effected at the lowest rates. Storage taken at lowest current rates. 4v8-ft

HOP ROOTS FOR SALE.

I have a lot of choice HOP ROOTS, and also healthy BLACKBERRY SETS for sale at LOWEST RATES. Orders may be addressed through DEWEY & Co., of the Rural Press, San Francisco; ROBT. WILLIAMSON, Capital Nurseries, Sacramento; or to me,

CALVERT T. BIRD,

24v8-3m San Jose, Cal.

BELLA UNION HOTEL,

JOHN F. MILLER, Prop.,

SAN BERNARDINO, CAL.

This fine hotel is situated in one of the best parts of the city, and the proprietor will at all times use his best endeavors to promote the comfort of his guests.

AMERICAN SWEET CHESTNUT TREES.

Thirty Thousand American Sweet Chestnut Trees for sale cheap, in lots to suit, at Room 32 Merchants' Exchange, San Francisco, where samples may be seen. The trees are two years old, and in prime order. Will be delivered either in this city, Oakland or Sacramento. These trees are valuable for nuts, timber, shade trees or lawn trees; and are preferred by many to any of the foreign varieties. 4v

COMPTON & BINFORD,

REAL ESTATE BROKERS

Employment and Intelligence Office. Horse and buggy free to see property. Offices at Compton, and at corner of Court and Spring streets, Los Angeles, Cal.

AGRICULTURAL NOTES.

CALAVERAS.

PRODUCTS OF BENNETT VALLEY.—Calaveras Citizen, Jan. 23: There are fifty-five farms in this valley, of about 300 acres each. Product raised: Green fruit, 75 tons; dried fruit, 25 tons; wine, 150,000 gallons; horses, 100; cattle, 300; sheep, 1,000; hogs, 1,500; wool, 5,000 pounds; wheat, 16,000 bushels; oats, 1,000 bushels; barley, 1,500 bushels; corn, 6,000 bushels; hay, 200 tons; vegetables of all kinds and a numerous variety of berries for market and home consumption.

FRESNO.

CHEERFUL PROSPECTS.—A Farmer's Bonanza. —Fresno Expositor, Jan. 20: The amount of benefit this rain has been to the country is incalculable, as the whole State was sadly in need of rain or snow—the high Sierras being almost destitute of snow. But there can now no longer be any fears of a drouth, as enough rain has fallen to last a month, and by that time we shall probably have more. All who have in their crops are jubilant, and the wool-growers and stockmen are no less pleased, as the grass and grain is fairly springing forth under the influences of the rain. The merchants and business men of the county of course join in the general good feeling. This is a "bonanza" worth something. It is controlled by no ring, and is not subject to human manipulation. Shares in it have been distributed to the people of the State gratuitously, and it will cause the yield of a revenue to them far greater than that from the far-famed silver mines of Nevada. There are millions in it.

KERN.

THE HYDE STEAM PLOW.—The Kern county Courier says that the Hyde steam plow was tried on Billy Carr's ranch in that county, the other day. The wagon part was a success, but the plow attachment was a failure, which we believe has been the general result of all the experiments.

LAKE.

CROPS IN LAKE COUNTY.—Lakeport Bee, Jan. 21: It is the general testimony of our farmers that such an event as a failure of crops is unknown in Lake county. George Bucknell, who resides near Upper Lake, where he has a farm of 300 acres—100 of which he cultivates—has been in this county since 1854, and he says he has never failed to raise a good crop. The poorest years his land produced twenty-five bushels of grain to the acre; in good years as high as thirty-six bushels—making an average of thirty-three and a half bushels to the acre during the whole period of his residence here.

MENDOCINO.

SURE CROPS.—Mendocino Democrat, Jan. 16: Mendocino county, like her coast neighbors is peculiarly fortunate in the matter of raising crops, failures being a miracle. In fact we don't know that she has any failures. Some of our farmer friends complain a little occasionally, talk about want of rain, things drying up, etc., but it's more a "fashion" than a reality. Mendocino's generally "dead sure" to furnish good crops. Mendocino farmers may move along contentedly and happy that their lots have been cast in such pleasant places, for whatever may be the state of the crop yield elsewhere, whether partial or total failure, we can always raise enough here at home not only to keep the wolf from the door but to supply at least a little outside need. Potatoes, oats, barley, wheat, on our coast border, the same things with fruit and sprinkling of corn up through our center, grass and hay too all about, cattle and sheep and hogs living in health and plenty, rivers and creeks and smaller water courses rushing impetuously to the sea or moving quietly along on their beneficial missions, there's no reason why general prosperity should not rule throughout our farming community and Mendocino county become as rich in artificial as she is in natural beauty and attractions.

SAN JOAQUIN.

RAIN DOWN THE VALLEY.—The Stockton Independent, Jan. 21, says: Reports from Stanislaus, Merced, Fresno and Tulare counties are of the most cheering character respecting the rain and the effect upon grass and grain. The "sand plains" of Stanislaus, and the rich black soil of Merced are thoroughly saturated.

SANTA CLARA.

THE OUTLOOK.—Mercury, Jan. 23: The outlook for the farmers of this valley for the coming year is truly encouraging. Good crops are now a certainty, and, although the price may be low the yield will be amply large enough to bring the farmer a good sum for his labors. The farmers are happy themselves, and what suits them pleases the masses, for when the farmer prospers the county prospers in a corresponding degree. Already the effect of the rain is seen in the increased activity of business and the preparations being made for valuable improvements the coming season. All things considered we think the people of San Jose and the Santa Clara valley in general have reason to be thankful.

STANISLAUS.

THE WEST SIDE.—A correspondent of the Stanislaus News, writing from Grayson, Jan. 17th, speaks very encouragingly of the crop prospects in that vicinity, and says that the crops there are in the finest growing condition imaginable.

FENCES WASHED AWAY.—From several parties we learn that the freshet has been quite

severe in damages, occasioned by the washing away of wood and fences. One of our farmer friends, however, consoles himself in the belief that the damage is more than offset by the destruction of squirrels. These pests annually destroy a great quantity of grain, the recent floods have drowned many of them.

NUMBER OF GRAINS OF WHEAT IN A BUSHEL.—Mr. Arnold, of this place, presented us with a neat wooden measure, made by himself, that contains exactly one gill. The measure is filled with average size grains of wheat. The object Mr. Arnold had in view in the construction of the measure was to ascertain how many grains of Stanislaus wheat it required to make a bushel. On counting the kernels he found there were 2,970 in the gill, or 760,320 in a bushel.

CROP PROSPECTS.—San Jose Mercury, Jan. 21: The rain fall for the past few days has been quite sufficient for all present purposes, and some feel inclined to cry enough. The ground is thoroughly saturated with water, and we are now sure of abundant crops. The farmers all wear cheerful faces.

MOUNTAIN VIEW.—A correspondent from this place writing under date of Jan. 20, says: The long expected rain has come at last, and the farmers have commenced plowing and seeding. Vegetation is coming up fast; the farmers in the middle and uplands have all smiling countenances now, who a week ago had faces on them as long as from St. Patrick's day to America.

DIVERSIFIED FARMING.—A Few Hints.—Now that the certainty of another large crop of grain is pretty well assured, to be followed probably by another season of low prices, wouldn't it be a good time for our farmers to cast about in their minds for some more profitable use than wheat culture, to which they can devote at least a portion of their land?

We have urged this matter of diversified farming, early and late, and are glad to know that many of our farmers are getting out of the groove in which they have been so long running, and are marking out new paths in agricultural industry which they are finding it profitable to follow. But there is large room for improvement yet.

We are well aware that there are many of our large grain ranches from whose owners but little change from present methods can be expected. They are too large and unwieldy for anything but gang plows and mammoth harvesting machinery. It is a pity they are not cut up in small farms and cultivated with more profitable results. But there are also many of the latter class of farms, and that, too, upon our rich river bottoms, which are mainly devoted to grain. These lands are altogether too valuable to be used for any such purpose. They would yield their owners three times the profit, if planted to Lima beans, flax, hemp, broom corn, chicory, peas, or even Nantucket corn, than they will sow to grain. Whoever strikes out in some new industry of this sort, can hardly fail of success, provided he mixes a reasonable amount of brains with his labor. This is a good season to begin, and we hope it may come in our way to chronicle many innovations upon old wheat growing usages the coming season.

SONOMA.

AGRICULTURAL PROSPECTS.—Says the Argus: The agricultural prospects of Sonoma county, and particularly in the neighborhood of Petaluma, are better now than ever before known at this time of year. Most of our farmers are nearly or quite through seeding, and on many ranches grain and grass are further advanced than last year on the 1st of April.

Considerable seeding is yet to be done in Tomales. Grass and early sown grain are coming on finely. It is estimated that the area planted will be rather larger this year than usual.

An intelligent gentleman who has been engaged in farming pursuits in this State for the past twenty years, and has resided in this vicinity since 1872, informs us that everything considered he regards the region contiguous to Petaluma as decidedly the best agricultural district in California.

TULARE.

PLOW DEEP.—Visalia Delta, Jan. 21: Mr. Diss of San Francisco, who returned from a visit to his ranch on Cross Creek a few days since, said to us, "Tell the farmers to be sure and plow deep." The effects of the two theories of plowing is very plainly demonstrated in his alfalfa field, where the ground was plowed 3, 6, 12 and 15 inches deep. The different depths show a distinct shade of growth ranging upward in response to the plow going down. We know of several farmers who mortgaged their farms last fall in consequence of their shallow plowing theory.

INTERESTING EXPERIMENT IN TREE PLANTING.—Diss & Co. will this season set blue gum trees all around their section of land on Cross Creek with which will be tested the minimum quantity of water that can be relied upon to give them life through the dry term. The result will be looked for with interest by those who have timber claims to improve.

YOLO.

CROPS IN YOLO.—Yolo Mail, Jan. 21: Crops in the county are looking excellent. We interviewed a farmer from the Buckeye region yesterday, and he informed us that there has been more wheat put in the ground there than ever before in one year, and that much of it is summer fallow. The same may be said of all parts of the county. The wheat looks well, and the present turn for warm, growing weather, will soon bring a renewal of vegetation, and give a

green appearance to the lately plowed fields where the wheat was waiting for rain and warm sun to sprout and bring it up.

WHEAT IN WOODLAND is not very active just now. While the price was \$1.50, many sold, while others refused, but have since come in and disposed of the same for \$1.45 and \$1.40. We have no advice to offer, but the outlook now is very fair for a steady decline. The price now is \$1.37 1/2 @ \$1.40.

HEAVY PURCHASE.—The Mail of January 21st, says: Last week Dr. Glenn of Colusa, visited Davisville and contracted with the firm of Dresbach & Bane for the whole of his crop of wheat, which, in round numbers, at \$1.50 per cental, will amount to about \$250,000. Of course Messrs. Dresbach & Bane, being the agents of Friedlander, will not lose anything in the transaction, but the prospects for a dry season being entirely dispelled by the recent heavy rain. Mr. Friedlander, who no doubt, expected to hold for a big price, will not reap a second harvest from the transaction.

An Extensive Eucalyptus Plantation.

Mr. W. A. Mathews has, on the ranch of J. H. Byers, about 10 miles south of the town of Colusa, on the west bank of the Sacramento river, about 50,000 eucalyptus trees of the *Victoria Anquifolia*, or narrow-leaved iron-barked variety, which he intends planting on the ground in orchard form about 10 feet apart, during the next 60 days. The reason for planting iron-barks, instead of blue-gums, is that the former resists the severe frosts of the State better than the latter.

Mr. Mathews has come down to San Francisco to purchase 50,000 more trees of the same variety which he also intends planting this spring. He says he will plant the last named 50,000 trees on a piece of rich, never broken land, containing about 100 acres, raising cotton the first year between the rows of trees, and sugar beets the second year, as in two years the trees will probably throw too much shade for successful cotton culture.

He has raised 50,000 trees to a height of from two to eight inches, from two and a half pounds of seed, gathered from trees grown in Oakland. This certainly proves that California seed will germinate as well as imported. In fact he used equal quantities of imported and California and found the result so much in favor of that grown here that he used only those trees grown from California seed. Mr. Mathews has 225 acres of land in places within a radius of six or eight miles, upon which he intends planting eucalyptus trees. He is a young man and can afford to wait for his trees to attain a very respectable size before there will be any necessity for cutting them down for sale.

Preserving Green Fodder.

The Germans have studied the question of foods, and best conditions for feeding more thoroughly perhaps than the farmers of other countries. They find the same crop fed green, of greatly increased value over that cured in the sun, and they are therefore trying to devise some plan of preserving green fodder for winter use. The Belgian Agricultural Society has offered a prize to be awarded in 1876 for the best essay upon preserving green fodder.

There is something like a revolution to be expected in farming if a means can be practically found for storing intercalary or stolen forage crops, cultivated in autumn, and that cannot be made use of before frost sets in. The problem also includes the taking advantage of the aptitude of the close of summer and the commencement of autumn, to produce green crops capable of being stored. In the case of maize it is considered desirable to cut it in lengths of three and six inches before putting it into trenches, and covering with earth. This cutting enables it to pack better and is more efficacious in excluding the air. Conclusive experiments are required to confirm if straw, etc., mixed with the green stuff, would equally undergo the half fermentation process. The success of the problem thus involved would affect in a radical manner the rotation of crops, which has for principle, to restore to the soil all the elements of fertility carried off, by means of alternating one-half of grain with the other moiety of green crops. It is necessary now to find forage crops suited to autumn culture, of a rapid growth, and capable of being conserved in covered trenches, in a semi-green and palatable condition till spring.

Gold, Legal Tenders, Exchange, Etc.

[Corrected Weekly by CHARLES SUTRO & Co.]

SAN FRANCISCO, THURSDAY, JAN. 22, 1875.
LEGAL TENDERS IN S. F. 11A. M., 8 3/4 to 8 9/4.
GOLD BARS, 890. SILVER BARS, 3 1/2 per cent. discount.
EXCHANGE ON N. Y., 1/2 per cent. premium for gold.
Mexican Dollars, 1 1/2 and 2 per cent. discount.
Currency, 12 1/2 per cent. On London—Banks, 4 1/4; Commercial, 60. Paris, 5 francs per dollar.
LONDON—Consols, 92 1/2 to 93; Bonds, 90%; Liverpool Wheat 9s. 3d. to 9s. 8d. to 10s; C. 8s. 9d. to 10s. 3d.
QUICKSILVER IN S. F., by the flask, per lb. \$1.55

SEND IT EAST, NORTH, SOUTH, WEST.—As some of our subscribers have requested us to have their papers sent directly from our office to friends abroad, we can say to all patrons that they can have the Press changed to any address in the United States without extra expense.

A REAL CONVENIENCE.—DEWEY & Co: Please send me the RURAL PRESS. It is a real convenience and I cannot do without it. Enclosed you will find five dollars. Fraternally,
Anaheim, Cal., October 12, 1874. B. F. E. K.

PATENTS & INVENTIONS.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

[FROM OFFICIAL REPORTS FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.]

By Special Dispatch, Dated Washington, D. C., Jan. 26th, 1875.

FOR WEEK ENDING JAN. 12TH, 1875.

BLIND SLAT ADJUSTER.—David Aaron, Marysville, Cal.

SIGHT FOR FIRE ARMS.—Thomas Dunstone, Santa Cruz, Cal.

WATER WHEEL.—Samuel W. Knight, Sutter Creek, Cal.

CHIMNEY GUARD.—Robert Priseman, Sacramento, Cal.

BLIND STOP.—Alford T. Elford, Oakland, Cal.

STONE CUTTING MACHINE.—Louis Dinterre, S. F., Cal.

BIRD CAGE ATTACHMENT.—George Flidner, Portland, Oregon.

—The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue. NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & Co., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with perfect security and in the shortest time possible.

TRUCKEE, CAL., July 10, 1874.
MESSRS. DEWEY & Co.—Gentlemen: My patent is just received, and is entirely satisfactory. Permit me to tender you my sincerest thanks for the care and attention, the promptness and interest you have displayed in managing my affairs. Gratefully yours
C. F. MCGILVER.

IN SINGLE WRAPPERS.—Any subscriber who prefers it, can have this paper addressed in single wrappers.

STATEMENT

—OF THE—

Condition and Affairs

—OF THE—

California Farmers' Mutual Fire Insurance Association, OF SAN FRANCISCO.

In the State of California, on the 31st day of December, A. D. 1874, and for the year ending on that day, as made to the Insurance Commissioner of the State of California pursuant to the provisions of Sections 610 and 611 of the Political Code, condensed for publication as per blank furnished by the Commissioner:

Capital, \$100,000.
Amount of Capital Stock paid up in Cash... \$50,000 00
Amount of Capital Stock Subscribed..... 50,000 00

ASSETS.

Cash in Banks.....\$54,522 89
Premiums in Due Course of Collection..... 3,622 80
Bills Receivable, not matured, taken for Fire Risks..... 4,435 03
Cash Loans and Office Fixtures..... 350 69
Total Assets..... \$62,941 24

LIABILITIES.

Gross premiums on Fire Risks running one year or less, \$1,880 31. Re-insurance, fifty per cent..... \$940 31
Gross premiums on Fire Risks running more than one year \$15,001 16; re-insurance pro rata..... 12,000 93
Total Liabilities..... \$12,941 24

INCOME.

Net cash actually received for Fire premiums, \$10,379 69
Total income..... \$10,379 69

EXPENDITURES.

Net amount paid for Fire Losses (including \$—, losses of previous years)..... None
Net amount paid for Marine Losses..... None
Dividends to Stockholders..... None
Dividends to Policy-holders..... None
Paid or allowed for Commissions or Brokerage..... \$1,417 81
Paid for salaries, fees, and all other charges for officers, clerks, etc..... 2,420 00
Paid for all office expenses..... 1,622 48
Paid for State, National and local taxes..... 25 00
Total Expenditures..... \$5,485 29

LOSSES

Incurred during the year..... None

RISKS AND PREMIUMS.

Net amount of Risks written during the year..... \$875,737 \$16,881 47
Net amount in force December 31, 1874..... 875,837 16,881 37
Risks written in State of California..... 875,537 16,881 37

J. D. BLANCHARD, President,
W. H. BAXTER, Secretary.

Office, No. 6 Leidesdorff Street,
San Francisco. ja27-1t

Bronze Turkeys

12 Gobblers from 8 to 20 months old, 22 to 40 lbs each, for sale now.
Hens 14 to 18 lbs.

Emden Geese

40 to 50 pounds per pair at maturity.

BLACK CAYUGA DUCKS,

Games, Brahmas, Leghorns, Houdans, Bantams, etc.

Eggs, fresh, pure, true to name; well-packed so as to hatch after arrival.

For Illustrated Circular and Price-List, address

M. EYRE, Napa, Cal.

FERRETS. RABBITS. PIGEONS.

Please state where you saw this advertisement.

S. F. MARKET REPORT.

At Wholesale when not Otherwise Indicated.

Weekly Market Review.

DOMESTIC PRODUCE.

SAN FRANCISCO, Wednesday, Jan. 27, 1875.

General Remarks.—Receipts for the week are as follows, as far as reported at the Produce Exchange:

Flour, or sks.	20,396	Onions, sks.	1,428
Barley, cts.	11,295	Bran, sks.	3,130
Wheat, cts.	195,933	Middlings, sks.	1,115
Oats, cts.	482	Ground Barley, sks.	120
Corn, cts.	3,076	Hay, tons.	353
Rye, sks.	147	Straw, tons.	41
Beans, sks.	1,015	Bales.	59
Peas, sks.	10	Wool, bales.	2
Potatoes, sks.	10,661		

This, compared with last week's report, from the same source, shows increased receipts of Wheat, Corn, Rye, Potatoes, Onions, Bran, Middlings, Hay and Straw; decreased receipts of Flour, Barley, Oats, Beans and Wool. There were no receipts of Peas, Ground Barley or Hops in last week's report.

Fraughts are nominal. Under date of January 26, the following is reported. "Ship Kate Davenport," 1,249 tons; Wheat to Cork, £2 12s 6d.

To-day Liverpool Wheat is reported at 9s 3d to 9s 7d for average California and 9s 8d to 10s for Club.

Legal tenders in S. F.; 88% buying and 89% selling. For additions particulars with reference to Gold, Exchange, etc., see under appropriate head on preceding page.

We have changes to note this week in a variety of articles. With some of them the stormy weather and consequent lessening of supply has no doubt had its influence. The recent gale at this port seriously damaged a score of vessels; including among the number the "Carroll Castle," "Dharwar," "Eskdale," "Herman," "Maramma," "Nautilus" and "Sparrowhawk."

The incorporation of a company for the manufacture of Linen from Pacific grown Flax is an important event noted since our last review.

Negotiations have been commenced for a reciprocity treaty with the Hawaiian Islands.

Barley is 6c lower for best choice and is now reported at \$1.45 to \$1.50 per ctn. Sale of 600 sks Bay feed yesterday at \$1.50. Brewing shows a wide margin, according to quality, prices being from \$1.55 to \$1.70. Receipts of barley reported since January 1st up to this morning, 69,957 cts.

Beans. Receipts since January 1st up to this morning 8,161 cts. We note small White at 3 1/2 to 3 3/4 cts; Butter, small, are 3 1/2 to 3 3/4; do, large, 4 to 4 1/4, making the range of the market for this variety, 3 1/2 to 4 1/4; Bayo are 2 1/2 to 3, Pink 1 1/2 to 2, Pea 3 1/2 to 3 3/4.

Beef. No essential change in Fresh since last report.

Beeswax, 25 to 27 1/2 cts per lb, being lower than last week's report.

Butter is a little higher, except for inferior and firkin. Pickled not quoted. Cal., choice, 50 to 52 1/2; do, good, 37 1/2 to 45; do, inferior, 30 to 35; do, firkin, 30 to 35.

Buckwheat. In the absence of sales for some time, past, the report may be considered rather nominal at \$2.25 to \$2.50.

Bran. The city millers have reduced the price to \$15 per ton.

Broom Corn. No essential change since last report, of 5 to 8c.

Cotton. Cal. is 1/2 c lower, present rates being 12 to 14 1/2.

Corn. Receipts this morning, from Jan. 1st, 10,921 cts. Choice White, \$1.50 to \$1.55 per ctn., while some may bring as high as \$1.60. Yellow, \$1.45 to \$1.55; recent sale of choice small do., 150 sks, at \$1.55. Southern Yellow is selling at \$1.45.

Corn Meal, \$33.00 to \$33.50 per ton for Feed. Table, about 2 1/2 to 3c per lb.

Cheese. Cal., 12 1/2 to 17c per lb. Eastern, 15 to 20c, there being no important change.

Eggs less plentiful and the Fresh in market command a higher price. Cal. Fresh 35 to 37 1/2 cts doz Ducks' are 35.

Flour. The ship Borrowdale is loading at Vallejo for Liverpool and the Avonmore is taking here a partial cargo for Hong Kong. Extra is \$5.00 to \$5.37 1/2 for jobbing lots. Superfine is \$4.00 to \$4.50 per bbl. Receipts of Flour since Jan. 1st to morning of Jan. 27th, 154,574 qr sks.

Hay, \$12 to \$17. No essential change.

Hops—Since January 1st, to morning of 27th, receipts 152 bales. California, 1874, 30 to 32 1/2 c. Eastern, 1874, choice, 40 to 42 1/2 c.

Honey in comb is 15 to 25c per lb. What is called "Straight White"—because of its being placed squarely upon its surrounding frame so as to admit of convenient separation for retelling one cake, as it were, at a time—brings the higher figure reported. Strained Honey is 7 to 12 1/2 c. Receipts of Honey since January 6th, including 26th, 192 cases.

Lamb is 7 to 8c. No marked change.

Mutton. The range is 10 to higher; 6 to 6 1/2.

Middlings. The mill price has been placed at \$25 per ton.

Nuts—Jobbing. No important change. For prices see list.

Pork. No essential change except a slight change in dressed, 8 1/2 to 8 3/4 c.

RETAIL GROCERIES, ETC.

DOMESTIC PRODUCE.

WEDNESDAY M., Jan. 27, 1875.

Beans, small white, 3/4 @ 3 1/2	Tomatoes, 15 @ 90
do, butter, 3/4 @ 4 1/2	Salmon, 18 1/2 @ 90
do, bayo, 2 1/2 @ 3	Bodega, 1 1/2 @ 90
do, pink, 3/4 @ 2	St. Barbara, — @ —
do, pea, 3/4 @ 2 1/2	Sac. River, — @ —
Broom corn, 5 @ 8	Live Turkeys, 18 @ 20
Per lb., 5 @ 8	hens per doz., 16 @ 18

POULTRY & GAME.

Cal. 1874, 12 @ 14 1/2	do dressed, 20 @ 22
Butter, Cal. choice, 50 @ 52 1/2	Hens, per doz., 16 @ 18
do, good, 37 1/2 @ 45	Roosters, young, — @ 8 00
do, inferior, 30 @ 35	Large, — @ 9 00
do, firkin, 30 @ 35	Broilers, small, 3 50 @ 4 00
do, pickled, — @ —	do large, 4 00 @ 5 00
Oatmeal, 12 1/2 @ 17	Ducks, tame, doz, 8 00 @ 9 00
do, Eastern, 15 @ 20	Cheese, per pair, 2 00 @ 2 50
do, Western, 15 @ 20	Hare, per doz., 2 00 @ 3 00

Eggs, Cal. fresh, 35 @ 37 1/2	Snipe, Eng. doz., 10 @ 15
do, Oregon, — @ —	Quail, per doz., 1 50 @ 2 00
do, Eastern, — @ —	Mallard Ducks, 2 00 @ 3 00
do, Duck, — @ 35	do small, 1 50 @ 2 25

Wheat, coast, 1 50 @ 1 52 1/2	Wild Geese, gray, — @ —
do milling, 52 1/2 @ 57 1/2	Doves, per dozen, 50 @ 75
Barley, coast, 1 45 @ 1 50	Prairie Chickens, — @ —
do brewing, 1 55 @ 1 70	Rabbits, 1 25 @ 50
Oats, choice, 2 00 @ 2 10	do same, 3 00 @ 5 00
do common, 1 62 1/2 @ 1 70	Venison, — @ 8
Corn, white, 50 @ 55	Cal. Bacon, Light, 14 @ 14 1/2
do, yellow, 45 @ 55	do Medium, — @ 13 1/2
Buckwheat, 2 25 @ 2 50	do Heavy, 13 @ 13 1/2
Rye, 1 37 1/2 @ 40	Hams, Cal., 13 1/2 @ 14

California, 1874, 20 @ 42 1/2	do Whitefakers, — @ 17 1/2
East'n, 7 1/2 @ 42 1/2	do Duffell, ch, — @ 16
do common, 1 45 @ 50	do Armour, — @ 16
Corn, white, 50 @ 55	do Boyd's, — @ —
do, yellow, 45 @ 55	do Eastern, — @ —
Buckwheat, 2 25 @ 2 50	do new hams, 16 1/2 @ 17
Rye, 1 37 1/2 @ 40	Cal. Smoked Beef, 9 @ 10

Wheat, coast, 1 50 @ 1 52 1/2	Alfalfa, Chile, 10 @ 14
do milling, 52 1/2 @ 57 1/2	do California, 16 @ 18
Barley, coast, 1 45 @ 1 50	Cenary, 10 @ 15
do brewing, 1 55 @ 1 70	Cotton, 6 @ 10
Oats, choice, 2 00 @ 2 10	Flaxseed, 8 @ 14
do common, 1 62 1/2 @ 1 70	Hemp, 6 @ 10
Corn, white, 50 @ 55	Ky, 50 @ 60
do, yellow, 45 @ 55	do 3d quality, 40 @ 50
Buckwheat, 2 25 @ 2 50	Millet, 10 @ 12
Rye, 1 37 1/2 @ 40	Mustard, white, 1 1/2 @ 2

California, 1874, 20 @ 42 1/2	do Italian, 30 @ 40
East'n, 7 1/2 @ 42 1/2	do Perennal, 20 @ 35
do common, 1 45 @ 50	do Rape, 11 @ 12
Corn, white, 50 @ 55	do Timothy, 8 @ 12
do, yellow, 45 @ 55	do Sweet V Grass, 30 @ 40
Buckwheat, 2 25 @ 2 50	do Clover, 15 @ 20
Rye, 1 37 1/2 @ 40	do Red Top, 25 @ 30

California, 1874, 20 @ 42 1/2	do Hungarian, 8 @ 12
East'n, 7 1/2 @ 42 1/2	do Lawn, 50 @ 60
do common, 1 45 @ 50	do Mesquit, 15 @ 20
Corn, white, 50 @ 55	do Clover Red, 15 @ 20
do, yellow, 45 @ 55	do White, 65 @ 75
Buckwheat, 2 25 @ 2 50	Wool, Etc., — @ —
Rye, 1 37 1/2 @ 40	FALL—

California, 1874, 20 @ 42 1/2	Good to choice, 19 @ 22
East'n, 7 1/2 @ 42 1/2	Fair grade, 16 @ 18
do common, 1 45 @ 50	Defective, 12 @ 14
Corn, white, 50 @ 55	Hides, dry, 18 @ 19
do, yellow, 45 @ 55	do wet salted, 8 1/2 @ 9
Buckwheat, 2 25 @ 2 50	Tallow, Crude, 6 1/2 @ 7
Rye, 1 37 1/2 @ 40	do Refined, 8 @ 9

California, 1874, 20 @ 42 1/2	Alfalfa, Chile, 10 @ 14
East'n, 7 1/2 @ 42 1/2	do California, 16 @ 18
do common, 1 45 @ 50	Cenary, 10 @ 15
Corn, white, 50 @ 55	Cotton, 6 @ 10
do, yellow, 45 @ 55	Flaxseed, 8 @ 14
Buckwheat, 2 25 @ 2 50	Hemp, 6 @ 10
Rye, 1 37 1/2 @ 40	Ky, 50 @ 60

California, 1874, 20 @ 42 1/2	Good to choice, 19 @ 22
East'n, 7 1/2 @ 42 1/2	Fair grade, 16 @ 18
do common, 1 45 @ 50	Defective, 12 @ 14
Corn, white, 50 @ 55	Hides, dry, 18 @ 19
do, yellow, 45 @ 55	do wet salted, 8 1/2 @ 9
Buckwheat, 2 25 @ 2 50	Tallow, Crude, 6 1/2 @ 7
Rye, 1 37 1/2 @ 40	do Refined, 8 @ 9

California, 1874, 20 @ 42 1/2	Alfalfa, Chile, 10 @ 14
East'n, 7 1/2 @ 42 1/2	do California, 16 @ 18
do common, 1 45 @ 50	Cenary, 10 @ 15
Corn, white, 50 @ 55	Cotton, 6 @ 10
do, yellow, 45 @ 55	Flaxseed, 8 @ 14
Buckwheat, 2 25 @ 2 50	Hemp, 6 @ 10
Rye, 1 37 1/2 @ 40	Ky, 50 @ 60

California, 1874, 20 @ 42 1/2	Good to choice, 19 @ 22
East'n, 7 1/2 @ 42 1/2	Fair grade, 16 @ 18
do common, 1 45 @ 50	Defective, 12 @ 14
Corn, white, 50 @ 55	Hides, dry, 18 @ 19
do, yellow, 45 @ 55	do wet salted, 8 1/2 @ 9
Buckwheat, 2 25 @ 2 50	Tallow, Crude, 6 1/2 @ 7
Rye, 1 37 1/2 @ 40	do Refined, 8 @ 9

California, 1874, 20 @ 42 1/2	Alfalfa, Chile, 10 @ 14
East'n, 7 1/2 @ 42 1/2	do California, 16 @ 18
do common, 1 45 @ 50	Cenary, 10 @ 15
Corn, white, 50 @ 55	Cotton, 6 @ 10
do, yellow, 45 @ 55	Flaxseed, 8 @ 14
Buckwheat, 2 25 @ 2 50	Hemp, 6 @ 10
Rye, 1 37 1/2 @ 40	Ky, 50 @ 60

California, 1874, 20 @ 42 1/2	Good to choice, 19 @ 22
East'n, 7 1/2 @ 42 1/2	Fair grade, 16 @ 18
do common, 1 45 @ 50	Defective, 12 @ 14
Corn, white, 50 @ 55	Hides, dry, 18 @ 19
do, yellow, 45 @ 55	do wet salted, 8 1/2 @ 9
Buckwheat, 2 25 @ 2 50	Tallow, Crude, 6 1/2 @ 7
Rye, 1 37 1/2 @ 40	do Refined, 8 @ 9

California, 1874, 20 @ 42 1/2	Alfalfa, Chile, 10 @ 14
East'n, 7 1/2 @ 42 1/2	do California, 16 @ 18
do common, 1 45 @ 50	Cenary, 10 @ 15
Corn, white, 50 @ 55	Cotton, 6 @ 10
do, yellow, 45 @ 55	Flaxseed, 8 @ 14
Buckwheat, 2 25 @ 2 50	Hemp, 6 @ 10
Rye, 1 37 1/2 @ 40	Ky, 50 @ 60

California, 1874, 20 @ 42 1/2	Good to choice, 19 @ 22
East'n, 7 1/2 @ 42 1/2	Fair grade, 16 @ 18
do common, 1 45 @ 50	Defective, 12 @ 14
Corn, white, 50 @ 55	Hides, dry, 18 @ 19
do, yellow, 45 @ 55	do wet salted, 8 1/2 @ 9
Buckwheat, 2 25 @ 2 50	Tallow, Crude, 6 1/2 @ 7
Rye, 1 37 1/2 @ 40	do Refined, 8 @ 9

California, 1874, 20 @ 42 1/2	Alfalfa, Chile, 10 @ 14
East'n, 7 1/2 @ 42 1/2	do California, 16 @ 18
do common, 1 45 @ 50	Cenary, 10 @ 15
Corn, white, 50 @ 55	Cotton, 6 @ 10
do, yellow, 45 @ 55	Flaxseed, 8 @ 14
Buckwheat, 2 25 @ 2 50	Hemp, 6 @ 10
Rye, 1 37 1/2 @ 40	Ky, 50 @ 60

California, 1874, 20 @ 42 1/2	Good to choice, 19 @ 22
East'n, 7 1/2 @ 42 1/2	Fair grade, 16 @ 18
do common, 1 45 @ 50	Defective, 12 @ 14
Corn, white, 50 @ 55	Hides, dry, 18 @ 19
do, yellow, 45 @ 55	do wet salted, 8 1/2 @ 9
Buckwheat, 2 25 @ 2 50	Tallow, Crude, 6 1/2 @ 7
Rye, 1 37 1/2 @ 40	do Refined, 8 @ 9

California, 1874, 20 @ 42 1/2	Alfalfa, Chile, 10 @ 14
East'n, 7 1/2 @ 42 1/2	do California, 16 @ 18
do common, 1 45 @ 50	Cenary, 10 @ 15
Corn, white, 50 @ 55	Cotton, 6 @ 10
do, yellow, 45 @ 55	Flaxseed, 8 @ 14
Buckwheat, 2 25 @ 2 50	Hemp, 6 @ 10
Rye, 1 37 1/2 @ 40	Ky, 50 @ 60

California, 1874, 20 @ 42 1/2	Good to choice, 19 @ 22
East'n, 7 1/2 @ 42 1/2	Fair grade, 16 @ 18
do common, 1 45 @ 50	Defective, 12 @ 14
Corn, white, 50 @ 55	Hides, dry, 18 @ 19
do, yellow, 45 @ 55	do wet salted, 8 1/2 @ 9
Buckwheat, 2 25 @ 2 50	Tallow, Crude, 6 1/2 @ 7
Rye, 1 37 1/2 @ 40	do Refined, 8 @ 9

California, 1874, 20 @ 42 1/2	Alfalfa, Chile, 10 @ 14
East'n, 7 1/2 @ 42 1/2	do California, 16 @ 18
do common, 1 45 @ 50	Cenary, 10 @ 15
Corn, white, 50 @ 55	Cotton, 6 @ 10
do, yellow, 45 @ 55	Flaxseed, 8 @ 14
Buckwheat, 2 25 @ 2 50	Hemp, 6 @ 10
Rye, 1 37 1/2 @ 40	Ky, 50 @ 60

California, 1874, 20 @ 42 1/2	Good to choice, 19 @ 22
East'n, 7 1/2 @ 42 1/2	Fair grade, 16 @ 18
do common, 1 45 @ 50	Defective, 12 @ 14
Corn, white, 50 @ 55	Hides, dry, 18 @ 19
do, yellow, 45 @ 55	do wet salted, 8 1/2 @ 9
Buckwheat, 2 25 @ 2 50	Tallow, Crude, 6 1/2 @ 7
Rye, 1 37 1/2 @ 40	do Refined, 8 @ 9

California, 1874, 20 @ 42 1/2	Alfalfa, Chile, 10 @ 14
East'n, 7 1/2 @ 42 1/2	do California, 16 @ 18
do common, 1 45 @ 50	Cenary, 10 @ 15
Corn, white, 50 @ 55	Cotton, 6 @ 10
do, yellow, 45 @ 55	Flaxseed, 8 @ 14
Buckwheat, 2 25 @ 2 50	Hemp, 6 @ 10
Rye, 1 37 1/2 @ 40	Ky, 50 @ 60

California, 1874, 20 @ 42 1/2	Good to choice, 19 @ 22
East'n, 7 1/2 @ 42 1/2	Fair grade, 16 @ 18
do common, 1 45 @ 50	Defective, 12 @ 14
Corn, white, 50 @ 55	Hides, dry, 18 @ 19
do, yellow, 45 @ 55	do wet salted, 8 1/2 @ 9
Buckwheat, 2 25 @ 2 50	Tallow, Crude, 6 1/2 @ 7
Rye, 1 37 1/2 @ 40	do Refined, 8 @ 9

California, 1874, 20 @ 42 1/2	Alfalfa, Chile, 10 @ 14
East'n, 7 1/2 @ 42 1/2	do California, 16 @ 18
do common, 1 45 @ 50	Cenary, 10 @ 15
Corn, white, 50 @ 55	Cotton, 6 @ 10
do, yellow, 45 @ 55	Flaxseed, 8 @ 14
Buckwheat, 2 25 @ 2 50	Hemp, 6 @ 10
Rye, 1 37 1/2 @ 40	Ky, 50 @ 60

California, 1874, 20 @ 42 1/2	Good to choice, 19 @ 22
East'n, 7 1/2 @ 42 1/2	Fair grade, 16 @ 18
do common, 1 45 @ 50	Defective, 12 @ 14
Corn, white, 50 @ 55	Hides, dry, 18 @ 19
do, yellow, 45 @ 55	do wet salted, 8 1/2 @ 9
Buckwheat, 2 25 @ 2 50	Tallow, Crude, 6 1/2 @ 7
Rye, 1 37 1/2 @ 40	do Refined, 8 @ 9

California, 1874, 20 @ 42 1/2	Alfalfa, Chile, 10 @ 14
East'n, 7 1/2 @ 42 1/2	do California, 16 @ 18
do common, 1 45 @ 50	Cenary, 10 @ 15
Corn, white, 50 @ 55	Cotton, 6 @ 10
do, yellow, 45 @ 55	Flaxseed, 8 @ 14
Buckwheat, 2 25 @ 2 50	Hemp, 6 @ 10
Rye, 1 37 1/2 @ 40	Ky, 50 @ 60

California, 1874, 20 @ 42 1/2	Good to choice, 19 @ 22
East'n, 7 1/2 @ 42 1/2	Fair grade, 16 @ 18
do common, 1 45 @ 50	Defective, 12 @ 14
Corn, white, 50 @ 55	Hides, dry, 18 @ 19
do, yellow, 45 @ 55	do wet salted, 8 1/2 @ 9
Buckwheat, 2 25 @ 2 50	Tallow, Crude, 6 1/2 @ 7
Rye, 1 37 1/2 @ 40	do Refined, 8 @ 9

Java.....	—	@	26 1/2	do in 50 lb bxs..	—	@	12
Manilla.....	20	@	21	do in 25 lb bxs.	—	@	12
Ground in cs....	—	@	27	Circle A crushed	—	@	11
Chicory.....	9	@	10	Powdered.....	—	@	11
FISH.				Fine crushed...	—	@	11 1/2

Seedsman.

1875. Established 1857. 1875.

Capital Nursery and Seed House

W. R. STRONG and ROBERT WILLIAMSON, Proprietors, having united their interests in the Seed and Tree business, offer to the public the largest and finest growth of both Seeds and Trees ever offered to the California public, of their own production, and also from the largest and most reliable houses of the Eastern States and Europe, all of which we offer as low as Eastern Dealers.

TREES. Fruit, Shade, Ornamental, Evergreen, etc., raised in our Nurseries of the very best varieties. Dealers and Growers furnished at very lowest rates. Among our numerous varieties we call especial attention to **BRIGGS' RED MAY PEACH**, the earliest known, large, handsome of excellent flavor and good shipper.

SEEDS. Vegetable, Flower, Field and Tree Seeds, and Flowering Bulbs and Plants.

100,000 pounds Finest Quality California ALFALFA, RED and WHITE CLOVER, KENTUCKY BLUE GRASS, RYE GRASS, ORCHARD GRASS, VERNAL GRASS, MESQUIT GRASS, TIMOTHY, RED-TOP GRASS, and every other Grass adapted to the Pacific States and Territories.

All the finer qualities of our Seeds will be forwarded by mail (post-paid) to customers at Catalogue rates, on receipt of money, which can be sent by postal orders or registered letters, or express, at our risk.

CATALOGUES AND PRICE LISTS on application, and forwarded by mail.

WAREHOUSE, 8 and 10 J street. NURSERIES, U street, SACRAMENTO CITY. TREE YARD, I street, next to Library Building.

W. R. STRONG.



SEEDS. SEEDS.

Encourage home industry and make a saving of at least 30 per cent.

If you want Seed that you can depend upon as to variety and freshness, why not send your orders direct to the grower and make a saving of at least thirty per cent. on the prices of other seedsmen. Send for catalogue, free, post-paid, and compare with prices of other dealers. Just received,

Grasses, Clover, Alfalfa and Field Seeds, Fruit and Evergreen Trees, Shrubs, Flowering Shrubs, and Green-house Plants. Cabbage, Onion and Cauliflower Plants.

Large assortment of Bulbs from Holland. Address all orders or letters of inquiry, to

SEVIN VINCENT,

607 Sansome street, San Francisco, Cal

22v8-3m



My annual catalogue of Vegetable and Flower Seed for 1875, will be ready by Jan. 1st for all who apply. Customers of last season need not write for it. In it will be found several valuable varieties of new vegetables introduced for the first time this season, having made new vegetables a specialty for many years. Growing over a hundred and fifty varieties on my several farms, I would particularly invite the patronage of market gardeners and all others who are especially desirous to have their seed pure and fresh, and of the very best strain. All seed sent out from my establishment are covered by three warrants as given in my catalogue.

JAMES J. H. GREGORY, Marblehead, Mass

FLOWER SEEDS. Spooner's Prize Flower Seeds, Spooner's BOSTON MARKET VEGETABLE SEEDS.

VEGETABLE SEEDS. Descriptive Priced Catalogue, with over 150 illustrations, mailed free to applicant.

W. H. SPOONER, Boston, Mass.

Fresh Osage Orange Seed At One Dollar per pound, will be forwarded by mail in one pound packages on receipt of the price. Address,

DR. STRENTZEL, Martinez, Contra Costa Co., Cal.

SANTA CLARA.

Orders Wanted at the National Employment Office, 608 Market street, room 9; office crowded daily with good men and women, seeking employment; particular attention paid to country orders.

25v8-3m

A. BRANDT & CO., Prop's

Agricultural Articles.

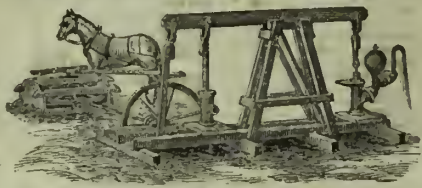
VINE AND FRUIT GROWERS,

TO RAISE LARGE CROPS

YOU MUST IRRIGATE.

To irrigate successfully, you must have the power that does not give out when the wind fails.

Laufkotter Bros. & Churchman's Horse-Power,



[PATENTED FEBRUARY 13TH, 1872.]

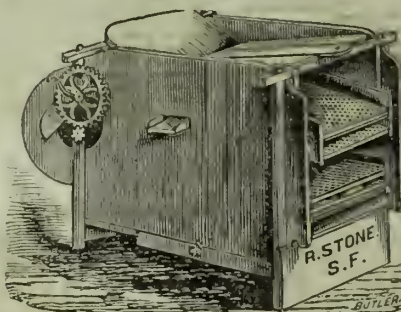
Never fails to supply more water than four or five Windmills, even supposing you had all the wind you want. It is also suitable for running light machinery, such as Harley Crackers, Corn Shellers, Lanning Mills, Grain Separators, or for Sawing Wood. They are never failing, cannot get out of order, easily worked, substantial, and always give satisfaction wherever they have been used. One horse can easily work two 6-inch pumps, with a continuous flow of water. Force Pumps, from 3/4 to 10/40 gallons per hour. WINDMILLS of all kinds manufactured to order. Wells Bored, Windmills and Horse-Powers set in any part of the State, and repairing of all kinds done. Manufactured and for sale by

LAUFKOTTER BROS.,

v7-2m-3m Cor. J and 10th Sts., Sacramento.

THE PATENT

Novelty Mill and Grain Separator



Is one of the greatest improvements of the age for cleaning and separating grain, while it combines all the essential qualities of a first-class Fanning Mill. It also far exceeds anything that has been invented for the separation of grain. It has been thoroughly tested on all the different kinds of mixed grain. It takes out Mustard, Grass Seeds, Barley and Oats, and makes two distinct qualities of Wheat if desired.

For further information, apply to

R. STONE,

10v8-cow-3m 422 Battery street, S. F.

MATTESON & WILLIAMSON'S

AMERICAN CHIEF



GANG PLOW

Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

4v2-3m

MATTESON & WILLIAMSON, Stockton, Cal.

THE TREADWELL SULKY



GANG PLOW.

Improved for 1874, with BLACK HAWK Plow Bottoms, is the best GANG PLOW in the world. It is Simple, Strong and Durable, and does its work effectually. Has high wheels, running both on unplowed land; iron axle, wrought iron beams, and is built nearly all of iron and steel. No farmer should neglect to see it before buying. Send for descriptive circular and price. We have also the "VICTOR GANG," with hard wood beams and heavy cast iron standards; price, \$75. Also the "GOLDEN STATE GANG," with all iron beams; price \$75. "PETER'S GANG," improved; price \$50; old style, \$25. The largest and best stock of Plows, Harrows, Cultivators, Grain Drills, Seed Sowers, Farm Wagons, etc., in the country.

TREADWELL & CO.,

18v8-tf San Francisco

Notice—To Tule Land Owners.

I am manufacturing a Gang Plow specially adapted to ploughing Tule Lands. Address

Vallejo Foundry, J. L. Heald, Prop.,

18v29-3m VALLEJO, CAL

O. CREGO.

A. C. BOWLEY.

B. W. OWENS, San Francisco, | E. MOORE, Stockton, Cal

CREGO & BOWLEY,

Importers and Manufacturers

—OF—

CARRIAGES and WAGONS,

No. 9 Merchant's Exchange,

CALIFORNIA STREET.....SAN FRANCISCO

Keep constantly on hand top and open Buggies, top and open Rockaways, Jump-seat Buggies, Track and Road Sulkeys, Skeleton Wagons, Basket Phaetons of the very latest styles and finest workmanship.

We would call particular attention to our fine stock of light Road and Trotting Wagons, made to order by the following celebrated makers:

Charles S. Coffey, Camden, New Jersey; Helfield & Jackson, Rahway, New Jersey; Gregg & Bow, Wilmington, Delaware;

And the first-class makers, which we are prepared to sell on the most reasonable terms.

Also, a large assortment of single and double Harness, of the most celebrated makers:

O. Graham, New York; J. R. Hill, Concord; Plittkin & Thomas, Philadelphia.

Also, a full assortment of Dress and Light Blankets, Fur and Lap Robes, Whips, Halters, Surcingles, etc., at wholesale and retail.

CREGO & BOWLEY,

No. 9 Merchant's Exchange, California street, 24v5-3m San Francisco.

Farmers and Threshers

WISHING TO HAVE

Straw Burning Engines

For next season must engage them soon, as most of those now building are already sold. Threshing Engines for Repairs should be sent in now. A number of second-hand Engines—taken in exchange for "Straw Burners"—for sale cheap. For particulars and prices, address:

H. W. RICE,

23v8-3m Haywood, Alameda County.

Allen's Planet Jr. Silver Medal

HAND DRILLS and WHEEL HOES. THREE new styles. They "run like a charm," and are better, easier, and six times faster than the hand hoe. S. L. ALLEN & CO., Mfrs. 119 S. 4th St., Phila., Pa. Circulars free. A LIVE AGENT WANTED in every town.

Commission Merchants.

STUART & ELDER,

WHOLESALE

COMMISSION MERCHANTS

FOR THE SALE OF

California Dairy Produce,

GRAIN & QUICKSILVER,

204 Front Street, San Francisco.

AGENTS FOR THE

Missouri,

Kentuck,

Ida Clayton

and Yellow Jacket

Quicksilver Mines.

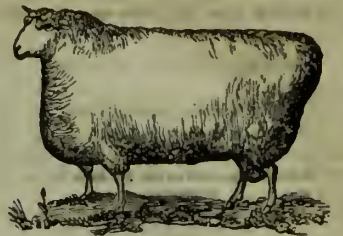
All orders for Supplies and Machinery for Mines promptly attended to.

RETORTS, POWDER and MINERS' TOOL

Supplied at Importers' Prices.

3v8-cow-hp

Davis & Sutton, Commission Merchants, For California Fruits; also for the sale of Butter, Eggs, Cheese, Hops, Green and Dried Fruits, etc., 75 Warren street, New York. Refer to Anthony, Halsey, Cashier, Trademark's National Bank, N. Y.; Ellwanger & Barry, Rochester, N. Y.; O. W. Reed, Sacramento, Cal.; A. Lusk & Co., Pacific Fruit Market, San Francisco, Cal.



OWENS & MOORE, COMMISSION MERCHANTS,

DEALERS IN

WOOL, HIDES, PELTS AND GRAIN.

Office—405 Front street, S. F. 14v7-3m

H. K. CUMMINGS, 1858.

H. H. BALSTON, 1876.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission House,

ESTABLISHED 1868.

No. 424 Battery street, southeast corner of Washington, San Francisco.

Our business being exclusively Commission, we have interests that will conflict with those of the producer.

Miscellaneous Notices.



\$30 A DAY

AND EXPENSES.

Men and Women Wanted

TO SELL OUR

KING IRON.

Four Complete Irons in one. Circulars and terms sent free. Address S. M. WOODS, No. 205 Sansome Street, S. F. 17 State, County and Town rights for sale.

LEA & PERRINS'

—CELEBRATED—

Worcestershire Sauce.

Declared by Connoisseurs to be the only good SAUCE.

Caution Against Fraud.

The success of this most delicious and unrivaled Condiment having caused certain dealers to apply the name of "Worcestershire Sauce" to their own inferior compounds, the public is hereby informed that the only way to secure the genuine is to ask for LEA & PERRINS' SAUCE, and see that their names are upon the wrapper, labels, stopper and bottle.

Some of the foreign markets having been supplied with a spurious Worcestershire Sauce, upon the wrapper and labels of which the names of Lea & Perrins have been forged, L. & P. give notice that they have furnished their correspondents with power of attorney to take instant proceedings against manufacturers and vendors of such, or any other imitations by which their right may be infringed.

To be obtained of Messrs. CROSS & CO., San Francisco.

THE CELEBRATED

H. H. H.

HORSE MEDICINE

IS STILL AHEAD OF ALL OTHERS.

The Wholesale Druggists of San Francisco, give evidence of its appreciation throughout the State, by and rapidly increasing orders. We pledge it a cure for SPAVINS, WIND GALLS,

SWEENEY, SCRATCHES,

LAME AND STIFF JOINTS,

CALLONS, LUMPS,

AND ALL BLEMISHES,

SPRAINS OR BRUISES.

It is a household blessing and no family should be without a bottle in the house. For sale everywhere.

WILLIAMS & MOORE, Prop's.,

25v8-6m Stockton, Cal.

ALEX. BUSWELL,

BOOK BINDER, PAPER RULER

AND BLANK BOOK MANUFACTURER.

418 & 420 Clay Street, S. F.

Blank Books Ruled, Printed and Bound to Order.

OWENS, LANE & DYER MACHINE COMPANY.

Manufacturers of the following Specialties:

**Portable & Stationary Engines,
CIRCULAR SAW MILLS,**

OF ANY CAPACITY REQUIRED.

Also, the Celebrated

STEAM THRESHER, "California Chief"

Have recently added to their lists, the

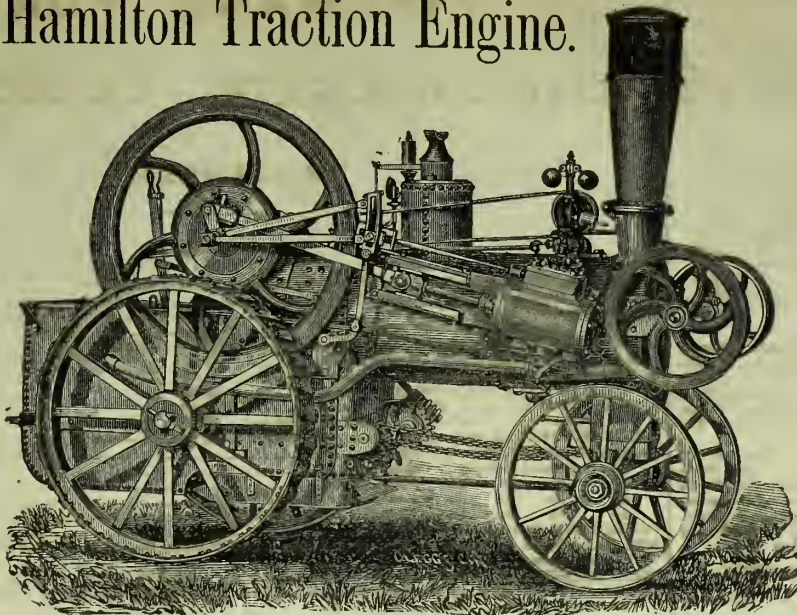
HAMILTON TRACTION ENGINE.

WORKS IN

MACHINERY DEPOT.

HAMILTON, O. ST. LOUIS, MO.

Hamilton Traction Engine.



OUR TRACTION ENGINE

Is no mere novelty or uncertain experiment, but is well designed, well constructed and thoroughly practical in all its operations. It is strong and substantial in all its parts, reliable and durable in action, and capable of any service for which the best of such Engines are adapted.

In its design and construction we have taken as models the best of the English engines of this class, and with modifications and improvements suggested by an experience in the construction and operation of Portable Engines, and a knowledge of the uses that will be required of them, and the conditions to which they will be subjected in this country. We thereby advertise that we are prepared to furnish a ROAD AND FIELD LOCOMOTIVE better adapted for such service and in many respects superior to any thing yet produced in that line.

For full description, prices, &c. of these or any other machinery in our line we invite parties wishing to purchase such machinery, to call and see or address us at our place of business in

HAMILTON, O., or ST. LOUIS, MO.,

OWENS, LANE & DYER, MACHINE CO

Nurserymen.

Established 1853.

Stocks for Nurserymen.

Plum Seedlings, Mirobolan, the best French stock, does not sucker.....	\$50 per 1000
Apple Seedlings.....	10 per 1000
Pear Seedlings.....	10 per 1000
Cherry Seedlings, Mazzard.....	12 per 1000
Walnut, English, 4 to 6 feet.....	20 per 1000
Cork Elm, best Elm, 4 to 6 feet.....	15 per 100
Blue Gum or Eucalyptus, in variety.....	5 to 10 per 100
Magnolia Grandiflora.....	
Magnolia Acuminata.....	
Magnolia Tripetala.....	
Golden Arborvitae.....	
Crataegus Arborescens.....	
Swedish Juniper.....	
Irish Juniper.....	
Heath-leaved Arborvitae.....	
Heath, Mediterranean.....	\$2 50 per doz.
Laurustinus, 6 to 12 in.....	2 50 per doz.

LARGE STOCK

Making the growth of Oranges and Lemons a specialty, I have imported from all sources the best known varieties, and now offer five thousand Grafted Trees properly worked and twice transplanted at \$18 per dozen. Grafted oranges by the 100 or 1,000 at prices on application. The amateur in want of large PALMS, large AURICARIAS, large CAMELIAS and large TREE FERNS, a good stock on hand; also the usual large stock of fruit and ornamental trees.

BERNARD S. FOX,
San Jose, Cal.

THOS. MEHERIN, Agent, 516 Battery Street, San Francisco. 24v83m.

KELSEY'S NURSERIES,

OAKLAND, - - - - - CAL.

Established 1852.

More largely stocked this year than any previous year. Embracing all and every kind of

FRUIT, DECIDUOUS, ORNAMENTAL AND

FLOWERING TREES AND

PLANTS, ETC.

Send for Catalogue and Price List free, on application.

W. F. KELSEY, Prop.

KING'S NURSERY,

Twenty-fifth St., bet. Telegraph & Broadway
OAKLAND, CAL.

Fruit, Shade and Evergreen Trees, Shrubs, Roses, Etc. Persons laying out new grounds would do well to call and examine our stock before purchasing elsewhere. A large stock of EUCALYPTUS, including BLUE GUM Pines and OXYSPRESS from six inches to twelve feet high. Acacias in variety. Young Stock for Nurserymen: Pines and Cypress; Three Thousand Magnolia Grandiflora from six inches to five feet high; Camellia Japonica; Gardenia Cape Jessamine; Arbutus in variety, at Lowest Rates. Orders attended to. Address, **M. KING, Nurseryman,** Oakland, Cal.

PEPPER'S NURSERIES.

(Established in 1858.) PETALUMA, OAL.

Green Houses and Tree Depot corner Washington and Liberty streets.

4 Green Houses. 3,000 feet of Glass. Fruit Trees a Specialty.

We offer for sale at lowest market rates a general assortment of Fruit and Shade trees, small Fruits, Vines, etc. Evergreen trees and Shrubs in great variety. Green House, Conservatory and Bedding Plants, Roses, etc.

We are now ready, Nov. 1st, to fill orders for trees and plants. Catalogue and price list furnished on application.

Address, **W. H. & G. B. PEPPER,**
19v8-tf Petaluma, Sonoma Co., Oal.

THE BIRMINGHAM SHOVEL.

These Shovels have No Rivets nor Straps.

The blade is made of one piece of BEST SOLID CAST STEEL, the blade and shank being one piece.

THEY WILL WEAR TWICE AS LONG

As the ordinary shovel They are the STRONGEST, BEST and CHEAPEST SHOVEL EVER MADE. Examine the engravings carefully and you can see how they are made.

THEY NEED ONLY TO BE TRIED

To prove their value. Prices same as ordinary shovels. Ask for the BIRMINGHAM SHOVEL. Take no other.

TREADWELL & CO., Sole Agents for Pacific States,
San Francisco, Cal.



Fruit, Shade and Ornamental

EVERGREEN TREES

-AND-

Plants for Sale.

At the old stand, corner Oregon and Battery streets, directly opposite Post Office, San Francisco.

I NOW OFFER FOR SALE

The Largest and Best Collection of Fruit, Shade and Evergreen Trees and Plants ever offered in this market, and at Reduced Prices.

Persons laying out new grounds would do well to call and examine our stock before purchasing elsewhere.

ORDERS FROM THE COUNTRY

Promptly attended to and packed with great care. A large stock of Cypress, Pines and Blue Gums for sale very low. Send for Price Catalogue.

Agent for B. S. Fox's Nurseries, San Jose. Address

THOMAS MEHERIN,

P. O. Box, 722,

516 Battery St., S. F.

SHINN'S NURSERIES,

NILES' JUNCTION,

Alameda County, - - - California.

The attention of persons intending to set out Trees is requested to the well grown and large variety offered for sale by the undersigned at the above Nurseries. An examination of our stock will satisfy any one of the quality, being all that can be asked, and when the low prices we have fixed are taken into consideration, we believe we are offering the very best inducements for buyers to deal with us. For full particulars we refer to our circular for the approaching season, which will be sent, as requested, on application to either of the undersigned.

SHINN & CO.,

Proprietors.

Address James Shinn, Niles, Alameda County, Cal., or, Dr. J. W. Olark, 418 California street. San Francisco, Oal. 8v17-4mo.

BELLEVUE NURSERY,

Telegraph Avenue, Oakland.

WE OFFER FOR SALE THE PRESENT SEASON A LARGE ASSORTMENT OF

Ornamental Trees and Shrubs

OF BEST TRIED VARIETIES.

Many fine specimens of good size can be seen on the grounds to select from. Choice collections (true to name) put up for those starting a garden. Street cars pass every fifteen minutes.

3v9-tf

S. NOLAN.

Metropolitan Nurseries,

Lombard Street,

Between Polk & Larkin Streets, at the Terminus of the Clay Street Hill Railroad.

MILLER & SIEVERS, PROPRIETORS.

FLORAL AND SEED DEPOT,

NO. 27 POST STREET, San Francisco.

Our stock of plants, comprising a most selected collection of Flowering and Ornamental Plants for the garden and the conservatory.

ROSES, over 200 varieties.

PINKS, 100 varieties.

DAHLIAS, 60 varieties.

PALMS, 40 varieties.

FERNS, 100 varieties.

ORANGES & LEMONS,

30 varieties.

Our assortment of Flowering Bulbs is complete. Always on hand a choice and fresh lot of

TREE, SHRUB and FLOWER SEEDS.

CUT FLOWERS, BOUQUETS, FUNERAL WREATHS and FLORAL DECORATIONS furnished at short notice and on reasonable terms.

Orders from any part of the country promptly filled.

Eucalyptus globules, (Blue Gum) seed, fresh invoice \$15.00 per pound.

New catalogue now ready, gratis on application.

ALMOND TREES.

35,000 Brier's Languedoc Almond Trees, one and two years old from the bud. This is the only Almond planted on a large scale, being hardy, late blooming, beautiful tree. It bears the second year from planting. The Almond is large and sweet with soft shell. Also, two year old Peach and English Walnut trees. Liberal terms to the trade and persons planting large orchards. Send orders to

W. W. BRIER,

Centerville, Alameda Co., Cal.

21v8-3m

PEACHES, APRICOTS and PLUMS are specialties at the Vacaville Nursery, Solano County, Cal. Alexander's Early, Thurber and Peento in bud, 50 cents each. Beatrice, Louise, Rivers' Early, Lord Palmerston Lady Palmerston, Prince of Wales, Princess of Wales, Piquet's Late, Lady Farham, Italian Dwarf, Golden Dwarf, Bloodleaved and many other varieties of new Peaches in bud, at 25 cents each; Trees of Alexander's Early, \$1 each. Beatrice, Plowden, Freemason and a general assortment of the leading varieties, 25 cents each; Apricots, Plums, Apples, Pears, Cherries, Almonds, Figs, Olives, Pomegranates and including most of the leading varieties of fruit for sale at low prices. D. E. Mough, Vacaville, Solano Co., Cal.

SUPERIOR FRUIT TREES

TRUE TO NAME.

A fine collection of Evergreen and Deciduous Trees. Australian Gum Trees in variety, by the hundred or thousand. Monterey Cypress in quantities and sizes to suit all. Orange and Lemon Trees at reduced prices. A general variety of Nursery stock.

Also, Rhubarb and Asparagus roots.

T. CORLEY,

18v29-tf

315 Washington Street, S. F.

J. ROCK'S NURSERIES,

San Jose, California.

We offer this season a Complete stock of

FRUIT AND ORNAMENTAL TREES,

SMALL FRUITS AND PLANTS.

The attention of Dealers, Nurserymen and Planters is invited to our Large Stock of Fruit Trees.

All Leading Market Varieties are grown in large quantities. To all those purchasing largely we will make a Liberal Discount. Catalogues FREE on application.

23-v8-tf

JOHN ROCK, San Jose, Cal

F. LUDEMANN.

RUD. MICHELSEN.

PACIFIC NURSERY,

Baker St., Between Lombard and Chestnut,
San Francisco, Cal.

P. O. Box 475.

We offer this Season a Large and Complete Selection of Well Grown

EVERGREEN AND DECIDUOUS TREES AND SHRUBS, FLOWERING AND ORNAMENTAL PLANTS

At very reasonable Prices. Our Descriptive Catalogue of Evergreens and Deciduous Trees and Shrubs, and our Wholesale Trade List (For Dealers and Nurserymen) will be sent on application. All Orders promptly filled. **F. LUDEMANN & CO.**

Thos. A. Garey's

Semi-Tropical Nurseries.

LOS ANGELOS, CAL.

Forty varieties of the Citrus family of semi-tropical trees, including many rare and beautiful, as well as useful and profitable kinds.

Grafted and Budded Orange Trees a specialty. Trees packed to arrive in good order. Priced Catalogue sent free. Address me P. O. Box, 528, Los Angeles city, Cal.

22v8-6m

THOS. A. GAREY.

20,000

AUSTRALIAN GUM TREES,

FOR SALE AT THE CELEBRATED

GUM TREE FOREST NURSERY,

Haywards, Alameda Co.

Address

JAMES T. STRATTON.

No. 206 Pine street, over Pacific Bank, S. F.
22v8-tf

GRAPE VINES FOR SALE.

Roots and Cuttings of the best foreign varieties in lots to suit, at ten to twelve dollars for the former and three to five dollars for the latter. Thirty thousand roots W. Muscat, Alexandria, &c. Orders solicited early.

H. W. CRABB,

Oakville, Napa Co., Cal.

1v9-tf

John Saul's Catalogue of New, Rare and Beautiful Plants for spring of 1875 will be ready in February, with colored plate. Free to all my customers. To others, 25 cents. A plain copy to all applicants free. Washington, D. C.

1874. GUIDE AND CATALOGUE 1875.
FREE.

To persons contemplating purchasing I will send my ILLUSTRATED, DESCRIPTIVE CATALOGUE and GUIDE to the VEGETABLE and FLOWER GARDEN WITHOUT CHARGE. It contains the most extensive and valuable list of



Flowering Bulbs, Roots and Plants, Semi-Tropical Trees, Ornamental Shrubs, Fruit and Shade Trees, etc., ever offered in this market. It tells how to successfully grow the Australian Blue Gum, the Monterey Cypress, Pine, etc., and the proper method of Cultivating Tobacco on this Coast.

My stock of seeds is in part my own raising and in part direct importations from the best European and Eastern growers, and is unsurpassed in all respects by that offered by any other establishment. 100,000 Australian Blue Gums and Monterey Cypress in boxes at from \$30 to \$50 per 1,000, raised at my own Nursery at San Rafael.

R. J. TRUMBULL,

Grower, Importer, Wholesale and Retail Dealer in Seeds, Shrubs, Trees, etc.

2078-6m-16p

427 Sansome street, S. F.

M. FALLON,

Cor. Seventh & Oak sts.,

OAKLAND, CAL.

Light & Dark Brahmas, Buff, White and Partridge Cochins, Spangled, Golden and Silver Polish, Spangled, Golden and Silver Hamburgs, Pure White-faced Black Spanish, White and Brown Leghorns, Silver Grey Dorkings, Houdans, Silkies, Black-Red Games, Bronze Turkeys, Rouen and Aylesbury Ducks.

All from Premium Stock of Best Strains.

Fowls of above varieties for sale; also, Chicks in their season. Eggs packed with care and sent in rotation as orders are received.

HEALD'S

BUSINESS COLLEGE,

No. 24 Post Street, San Francisco.

The largest and best Business College in America. Its teachers are competent and experienced. Its pupils are from the best class of young men in the State. It is under the very best discipline. Its scholarships are good in the THIRTY-SIX Bryant & Stratton Colleges. It employs four of the best penmen in the State. It has the largest rooms, the largest attendance, and the most complete system of business training of any commercial school in the country.

For information, call at the office, 24 Post street, or address, for circulars,

E. P. HEALD,

President Business College, San Francisco.

379-16-4f

OAKLAND POULTRY YARDS

Cor. 16th & Castro Streets, Oakland, Cal.

A choice selection of Brahmas, Cochins, Houdans, Games, Leghorns, Bantams, Bronze Turkeys, and Ducks constantly on hand and for sale at reasonable rates. Eggs guaranteed to be fresh, true to name and to reach customers safely. Also two Imported Bronze Gobblers for sale; weight 38lbs; price \$75 each. Send for Illustrated Circular containing a full description of all the best known and most profitable fowls in the world, to

GEO. B. BAYLEY,

P. O. Box 659, San Francisco.

J. S. HALVERSTADT & CO.,

Breeder and Shippers of

HIGH CLASS POULTRY

Embracing all

THE LEADING VARIETIES.

LEETONIA, OHIO.

Chicken Eggs, \$3; Turkey Eggs, \$5; Wild Geese Eggs, \$5. Letters of inquiry promptly answered. Descriptive Circulars and Price Lists sent on application.

EDGORTH POULTRY YARDS.

R. F. SHANNON,

Breeder of

Light and Dark Brahmas, Silver Duckwing and Black Breasted Red Game Bantams.

P. O. Box 568.

PITTSBURGH, PA.

Light Brahma Eggs, \$4, gold; Dark Brahma Eggs, \$6; Bantams Eggs, \$4. Orders received for Pigeons to be delivered in the Fall. At Pittsburgh Show, January, 1875, on 4 coops fowls and 8 coops pigeons, won 6 firsts, 2 seconds and 1 third and 3 specials.

PACIFIC RURAL PRESS,

A first-class 16-page Agricultural Home Journal, filled with fresh, valuable and interesting reading. Every farmer and ruralist should take it. It is immensely popular. Subscription, \$4 a year.

DEWEY & CO., Publishers,

No. 224 Sansome street,

SAN FRANCISCO.

No AGENTS are authorized to receive subscriptions for this paper at less than our advertised rates.

C. H. WHEELER.—Please address this office.

FIREMANS' FUND INSURANCE COMPANY OF CALIFORNIA.

Assets:

REAL ESTATE (unencumbered) S. W. cor. Sansome and California streets.....	\$165,000 00
LOANS ON BOND AND MORTGAGE, first liens.....	120,672 00
INTEREST due thereon.....	701 42
do due and accrued on stocks.....	640 00
UNITED STATES REGISTERED BONDS, par value, \$138,500; market value.....	148,195 00
SAN FRANCISCO CITY AND COUNTY do.....	18,000 00
CALIFORNIA STATE BONDS.....	1,000 00
SOUTH CAROLINA STATE BONDS.....	2,600 00
STOCKS, BANK OF CALIFORNIA, 200 shares.....	26,800 00
do FIRST NATIONAL GOLD BANK, 100 shares.....	11,750 00
BILLS RECEIVABLE, secured by collaterals, market value \$88,600—loaned.....	60,000 00
CASH in Company's Principal Office.....	5,892 86
do deposited in Bank of California.....	7,574 82
do do do do Sather & Co.....	9,286 01
do do do do Laidlaw & Co., New York.....	2,843 10
do do do Union National Bank, Chicago.....	6,210 06
PREMIUMS in due course of collection.....	23,431 42
NET BALANCES in hands of Managers, Eastern and Western Departments, and in due course of transmission.....	25,749 00
BILLS RECEIVABLE, not matured, taken for Marine and Inland Risks.....	22,239 75
TAXES AND STREET ASSESSMENTS advanced on Real Estate, secured by terms of original Mortgages.....	3,073 19
RENTS due and accrued.....	250 00
OFFICE FURNITURE.....	5,061 12
Gross Assets.....	\$667,469 93

Liabilities:

LOSSES due and unpaid—none.....	
do reported and in process of adjustment.....	\$31,870 61
do resisted.....	2,126 25
MARINE BILLS payable.....	1,784 00
PERSONAL ACCOUNTS.....	2,169 35
Total.....	\$37,940 21

Net Assets, December 31, 1874.....\$629,529 72**COMPARATIVE.**

NET ASSETS, December 31, 1873.....	\$558,418 50
NET ASSETS, December 31, 1874.....	629,529 72
Gain.....	\$71,111 22

D. J. STAPLES, President.

ALPHEUS BULL, Vice-President.

GEO. D. DORNIN, Secretary.

WM. J. DUTTON, Assistant Secretary.

J. D. YOST, San Francisco. H. S. CROCKER, Sacramento

H. S. CROCKER & CO.,**IMPORTING STATIONERS**

—AND—

General Job Printers.

401 and 403 Sansome St., S. F.

PARTICULAR ATTENTION PAID TO

Manufacture of Blank Books.**BANK AND INSURANCE WORK**

A SPECIALTY.

2378-3m-16p

SEEDS.**PLANTS.**

OF EVERY VARIETY.

Fresh and reliable, such as experience and care only can select.

GRASS AND CLOVER SEEDS, KENTUCKY BLUE GRASS, HUNGARIAN, ORCHARD, ITALIAN RYE, RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL, CHOICE CALIFORNIA ALFALFA, WHITE CLOVER, RED CLOVER, Etc.

Also, RAMIE, JUTE AND TOBACCO SEEDS; together with a fine and complete collection of TREE SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGANTEA, PINUS INSIGNIS, Etc.

For Sale, wholesale or retail, by

B. F. WELLINGTON,

(Successor to E. E. Moore).

425 Washington St., San Francisco.

227-1y

THE CLEETON COOP COMPANY,

Of New Haven, Conn.,

Are now prepared to furnish societies and individuals with

Standard Exhibition Coops

AT REASONABLE RATES.

Correspondence Solicited.

NEW CROP OF**BLUE GUM SEED.****GRASS AND CLOVER SEEDS.****FLOWER AND VEGETABLE SEEDS.****TREE AND FRUIT SEEDS.**

OF EVERY DESIRABLE VARIETY AND OF THE BEST QUALITY, OFFERED AT WHOLESALE OR RETAIL, BY

**GEO. F. SILVESTER,
SEEDSMAN,**

No. 317 Washington Street,

2478 tf

SAN FRANCISCO

Improve Your Poultry,

IT COSTS NO MORE TO KEEP GOOD FOWLS THAN POOR ONES!

OAKLAND POULTRY YARDS,

Cor. 16th and Castro streets, Oakland, Cal.

**WHITE LEGHORNS.**

Called THE POOR MAN'S FOWL. Eggs, \$6 per doz; Fowls, \$20 to \$30 per trio; Single Cocks, \$10. A new importation of J. Boardman Smith & Pitkin's celebrated strains just received. Stock guaranteed perfect in markings—white ear lobes, etc. No inferior stock sold at the Oakland Poultry Yards for any money.

For further information send stamp for Illustrated Circular, containing a full description of all the best known and most profitable fowls in the country, to

GEO. B. BAYLEY,

Importer and Breeder of Blooded Fowls.

Box 659, San Francisco. Purity of all Stock and Eggs sold absolutely guaranteed.

C. C. Burr & Co's**Mustard**

9v5-cow-bp.

J. S. BEANER,

BREEDER OF

WHITE LEGHORNS.

My fowls are from stock that took the Special Premiums at the Boston Poultry Show in 1873 and 1874. Also at Pittsburgh this year. Eggs \$3 per setting. My P. O. address is Rochester, Beaver County, Pa. Correspondence Solicited.

OAKDALE POULTRY YARDS.

SATISFACTION GUARANTEED.

Light Brahmas, Dark Brahmas, Buff Cochins, BRONZE TURKEYS, AYLESBURY AND ROUEN DUCKS.

A. A. MILLER,

Oakdale Station, Allegheny Co., Pa.

Correspondence Solicited.

\$5 to \$20 Per Day at home. Terms free. Address G. STINSON & Co., Portland, Me.

BLOOMINGTON NURSERY, Bloomington, Ill.—F. KHENIX. Spring lists free, or the set of four catalogues post free for twenty cents.

S. H. COOK,

BREEDER OF

CHOICE LIGHT AND DARK BRAHMAS,

B. B. R. Game Bantams,

Mammoth Bronze Turkeys,

TOULOUSE, BREMEN AND AFRICAN GEESE,

ROUEN AND MUSCOVY DUCKS.

Some choice Light and Dark Brahmas for sale also, Bronze Turkeys. Address

S. H. COOK,

McDonald's, Washington Co., Pa.

Send for Price-List.

**BAY NURSERIES**

and Seed Store.

Established 1852.

P. O. Box 331.

OAKLAND, CAL.

An immense collection of Evergreen Trees, Shrubs and Flowering Plants, wholesale and retail. I invite inspection. Catalogues on application.

JAMES HUTCHISON, Prop.

T. A. WINFIELD,

Hubbard, Ohio.

Breeder of CHOICE POULTRY, BRAHMAS, COCHINS, BLACK AND RED GAMES, GAME BANTAMS, HAMBURGERS AND POLISH. Also, Choice collection of Fancy Pigeons. Send for Price-List. Eggs for sale in season, from \$3 to \$6 currency.

R. H. PECK,

BREEDER AND SHIPPER OF

Fancy Poultry and Eggs,

From Pure and Imported Stocks.

Having been very successful as an exhibitor, I solicit patronage. Address, with stamps, R. H. PECK, Earlville, Portage County, Ohio.

E. M. Hively's Poultry Yards,

YOUNGSTOWN, OHIO.

20 Varieties Land and Water Fowls,

—ALSO—

PIGEONS AND EGGS IN SEASON.

Correspondence Solicited.

C. B. ELBEN.

I make a specialty of

Fine Light Brahmas, AYLESBURY AND CALL DUCKS BLACK AFRICAN BANTAMS, &c.

Send for my new Catalogue and Price List.

C. B. ELBEN, Pittsburgh, Pa.



Volume IX.]

SAN FRANCISCO, SATURDAY, FEBRUARY 6, 1875.

[Number 6.]

Plants for Hedging.

We give on this page of our paper, illustrations of some plants used for hedging.

No. 1, Is *Esteditschia Monosperma*, a variety of the Honey Locust. It is native of S. Carolina to Florida; found mostly in the swamps, and not common. It grows quite as well in dry soils notwithstanding the fact that its native situation is wet. Is not as strong a grower as the Honey Locust, consequently better adapted for hedges. If kept closely clipped for the first two years, it seems almost impossible for cattle to effect an entrance through it. It is not suited to small places. Ranchers and large farmers will find it a great acquisition. It will grow in the salt water or in places washed by the spray of the ocean, where no other tree will grow.

No. 2, *Escallonia Alba*, makes a very nice hedge in a small place, is a good, close grower, and of nice habit. There are other varieties of the *Escallonia*, such as *Rubra*, *Maerantha*, etc.; but these are better adapted for training on walls, trellises, etc.

No. 3, Is the Mesquit Tree; a native of Texas, Mexico and Arizona. This tree is an evergreen, and resembles the peach in appearance. It is grown for feed as well as for hedges, producing a pod similar to the common garden bean. The pods are much used by Indians for food, while horses and cattle fatten on them readily.

No. 4, Is *Cercis Canadensis*, commonly called the Judas tree, from the fact that Gerarde the author asserts that it was on the *Cercis* that Judas hung himself. It grows to a medium sized tree, say 15 to 20 feet, under proper culture. As a hedge plant it is not much known, and its only main recommendation, in our opinion, would be its oddity. Flowering in early spring in great profusion before the sign of a leaf can be observed on any portion of its body and limbs, and continuing in flower until hid by the leaves. The color of the flowers are of the richest purple, and in a nicely kept hedge would resemble a purple band. In artistic landscapes a hedge of it would be very appropriate.

Clearing Land by Blasting.

We read the other day of a large farmer in England who had a portable steam engine for the special purpose of clearing his land of stumps. He had heavy tackles fastened to the stump, and the steam engine pulled it out roots and all, like a dentist pulls a tooth, by mere force and very little coaxing. This may be a very good way, but every farmer cannot afford to keep a steam engine for this purpose. Another method adopted in some parts of Great Britain is to remove the stumps, rocks, etc., of new ground by means of Giant powder. A substance well known in mining operations among us on this coast. It is a very powerful explosive, exerting its force in a more favorable manner than gunpowder and does not require any tamping. In some parts of California, especially in the mining regions, removing stumps by means of giant powder is an old thing, but in other parts of the State it may be new to some farmers.

The methods of applying it in blasting out trees were lately described in the London *Agricultural Gazette*: A hole is bored with a common auger into the center of a stump, and a charge of Giant powder, in a cartridge already prepared to fit the hole, is inserted. An iron tapering screw, made to fit a winch, is then tightly screwed into the hole. The screw has a hole through its center, by which a fuse is carried to the charge. The charge is exploded in the usual manner, and the stump is blown to pieces, or lifted out of its place. It may be well to caution those who undertake this work to exercise the greatest care, and to keep a good lookout for the screw, as it will sometimes

be blown to a considerable distance if too large a charge is used. Greater useful effect is gained by moderate charges. Excessive charges do very poor execution, either blowing out the screw or a portion of the stump, and leaving the larger portion shattered, but still in a condition which makes their removal very difficult. By another plan a hole is punched in the earth beneath the center of the stump, and between two of the largest roots. A cartridge of

object to be removed by a stump or a rock, the effect is the same.

This powder can be used economically on farms, as it now is in hydraulic mines, in breaking up large rocks which need removal, as well as in removing stumps. Bandmann, Nielson & Co., 210 Front street, who manufacture Giant powder in this city, will furnish the necessary instructions for the use of the powder to those who desire them. It is very simple



HEDGE PLANTS.

Giant powder is placed at the bottom of the hole, with a fuse attached to it. It is stated that the powder, when it explodes, throws the stump completely from the ground in every case, and frequently splits it into several portions. With common blasting powder this can not be done. Its explosion is not sufficiently rapid, and the earth is simply removed from the stump. But with the many times more rapid and forcible explosion of the Giant powder, the loose earth offers sufficient resistance, and the force of the explosion is exerted directly upward, with the best effect upon the stump or rock. It matters not whether the

and safe, and in many localities where ground is being cleaned, would be of great assistance.

MORE TREE PLANTING.—Mr. G. T. Stratton, of Brooklyn, has sold, besides other orders, 60,000 Eucalyptus trees this season to two individuals. G. P. Jones will transplant 35,000 on his land northwest of Berkeley, and E. C. Sessions, 25,000 on the low hills back of Brooklyn—all in Alameda county. Mr. Stratton may well be proud of his leading influence in the introduction of the Australian Gum trees.

Answers to Correspondents.

HIDE-BOUND.—A correspondent asks "what causes hide-binding, and what will cure a hide-bound horse?" The condition signified by the term "hide-bound" is not so much a disease as the consequence of exposure, of poor provender, and of neglect. A horse that has been used to treatment the reverse of this, and is then subject to such ill-treatment, will be more likely to be afflicted by it than one that has been "brought up to it." Foul stable beds, and yards where horses are allowed to lie upon half-rotted manure, with lack of grooming, have a tendency to produce this condition.

The principal reliance in affecting a cure should be a liberal supply of food—roots forming a portion of it—clean lodging, soft bed, proper exercise and good grooming. To hasten relief various remedies are prescribed, among which the following is recommended; but as we have never tested its efficacy, we leave it with the parties to use it at their discretion: Liquor arsenicalis, half an ounce; tincture of muriate of iron, one ounce; water, one pint; mix, and give as a dose daily.

ABOUT THE TEA PLANT.—"What treatment does it require?" It requires careful propagation from seed, and when the plants have become sufficiently hardy to set, transplant as with any other shrub, putting them in rows about ten feet apart. Cultivate and keep clean, using the ground for other crops, if desired, until the growth of the tea plants or bushes shut you out of the field. In five or six years they will yield a regular crop of leaves. But the processes of harvesting and curing are of too difficult and complicated a character to be properly treated in an ordinary newspaper article. It is generally conceded that the tea plant will thrive in nearly all parts of California—if it is not allowed to dry out—but there is little probability that we will ever be able to compete with the Asiatics—even with high tariffs—in producing tea. The lowest rates of Chinese labor at present prevailing in California are ten times as high as those under which tea is produced in China and Japan. There is now a prospect that these countries, will, to some extent, accept our wheat in exchange for tea; and if our people would abandon the project of producing tea, and devote their energies to bringing about this exchange, it would probably be to the advantage of all parties concerned.

It would be well to note here that Japan and China are extremely eager to monopolize tea growing, and that we in embarking in the enterprise are, in a measure, at their mercy. It is found very difficult to procure plants of the right character and in good condition, and it is even declared that the imported seed is scalded or otherwise tampered with before it leaves the hands of the producers, so that germination is prevented though the seed may be unchanged in appearance.

"What are the best varieties of plums for market and for drying?" From the communication accompanying this inquiry we are convinced that the gentleman means business, strictly, and in referring to our list of plums we shall only note those that have been marked "for market," by an experienced California fruit grower. They are as follows, their periods of ripening being nearly in the order in which they are named: Columbia, Imperial Gage, Damson, Coe's Late Red, Jefferson, Quackenboss, Rein Claude de Bavay and Yellow Gage.

MEETING OF THE STATE AGRICULTURAL SOCIETY.—The twenty-first annual meeting of the State Agricultural Society was held at the Pavilion, Sacramento, January 26th. Ransome A. Carey was re-elected President by acclamation. He was called upon for remarks, and thanked the Society, and said that when he was elected before the Society was \$2,500 in debt, now it was \$12,000 in debt, and he was proud of it, for they had something to show for it. He said that when the Society got out of debt he would never take the position again. Chris. Green, Jas. J. Green and Robert M. Hamilton were nominated as Directors and elected unanimously.

CORRESPONDENCE.

[The Rural Press, in opening the columns of this department to its correspondents, does not desire to lay before its readers anything which is not in keeping with its character and position as an agricultural and family paper. Facts are always thankfully received; and suggestions and matters of opinion on subjects connected with agriculture are also acceptable; though correspondents are to be understood as speaking for themselves and not for the Press.]

Crops, Fruit Drying and Dodder in Sacramento County.

EDITORS PRESS:—Many have suffered severely the last week, pecuniarily and otherwise in portions of the State, and in our valley. Their land washed by the surging waves, stock, produce, fences, their homes, their all, devastated by the surrounding element. The sighing and moaning wind came gently at first, and then gradually increased in thundering mutterings, and ended in raging storms over mountains, hills, valleys and plain, and our city, and the plains has stood the blast there is no damage within the pale limits—except along the river banks—outside of the levee bulwark. Our plain never has been washed, except a portion near the city limits in that memorable event of '62. We have but a small creek meandering through the plains, dry in summer—flowing in winter, and washing over its banks after such a storm, but of short duration—enriching, rather than damaging the earth with its sediments. The soil cultivated previous to the storm is fully saturated to the hard pan, and the sod land is in good condition for summer fallow. Our heavy rains coming so late is an unusual occurrence, they are generally in November or December, giving many an opportunity to accomplish far more than they expected.

The Crops.

Having so long a spell of comparatively dry weather, kept growing and rooting well, and are now receiving a perfect drenching by the storm that has prevailed with very little interruption for the past week or more. This is Saturday evening, January 23d, and there is no intermission. Grain may suffer the reverse way by rotting, and then there is our dry north winds in spring that suck the life blood from it before it is cut and garnered.

Variation.

Your portion of the valley does not depend wholly on cereals; farmers vary their tillage with fruits, hops and vegetables, and engaging in the best breeds of poultry, swine and stock; hence, failing in one, they can fall back on the rest. This is the true and safest plan for the husbandman to pursue.

Small Fruit Dryers.

I am glad to see that small dryers are being erected in adjoining counties, giving those who have a surplus left from market, to engage in drying, without great expenses. There is a dryer that can be made for \$75 to \$100. The patentee is a farmer near Stockton, who holds the patent himself, but not in use. He will probably get it up, and give all the privilege at a small cost to erect their own. A dozen of them could be easily distributed throughout our county and put in use. There has been a good deal sun-dried by many of our fruit growers this year, plums especially—which do well in the sandy loam soils along the river sides, and which has sold at remunerative rates. Drying Muscats for raisins has brought out considerable discussion in the Grange and out side, whether they retain the same flavor and escape burning by the heat. There is some doubt left in many minds, but trial and experience will work out the result.

The Parasite "Dodder."

In your issue of January 16th you give an account of the above parasite with cut from the *American Agriculturist*. You will always find it in one of the many instructive series of "Wonders of the World." Under one of the subjects headed "Geographical Distribution of Plants," page 212, description of the parasitic plants that derive their nourishment from vegetables, such as mistletoe, brown-rap, dodder and a number of lichens, mushroom and mosses. Pseudo parasite plants also, that live upon dead vegetables or upon the bark of living vegetable, but do not derive their nourishment from them, such as epidendron lichens and mosses; plants that vegetate in hot springs, of 80 to 150 degrees Fah., as *vitula agnus castus*—"Chaste tree" of the ancients and a species of osier, several cryptogamous plants, and *ulva thermalis*, the hot spring laver; plants that are developed in artificial infusions in liquors, as the mould found in the Maderia wine, a species of *canfurva* (the above I have added). You will also find in the Agricultural Report of 1865, page 516, under the classes of Weeds of American Agriculture—*cuscuta epilinum*—dodder and flax wine, resembling copper wire in appearance. This was introduced with our flax crop and became a great pest by winding round and entangling branches of stocks so as to spoil them. But the vine has become rare since the culture has declined among us. I have seen it on the banks of the Sacramento while going down to your city. I discovered it first on a plant of alfalfa, adjoining the house, wondering where it came from, but supposing the wind carried the seeds from the river banks, as the wind came from that way, or that the birds

dropped them as they flew over. I knew it was of the parasite family but did not know the name. Last summer I took some straw and experimented by burning it. Since the rain has commenced I discover it has not been fully exterminated and will give it another trial.

GEO. RICH.

Sacramento county, January 23, 1875.

From Montana Territory.

EDITORS PRESS:—Having been a constant reader of your valuable paper from its first issue, and seeing nothing of late from this section, I have concluded to send you an item or two. At the present time we are enjoying a nice spell of weather, with the thermometer ranging from zero down to the congeling of the mercury, which inclines one to feel like emigrating to California, or some more favorable climate. We have just succeeded in organizing a county fair association, styled the "Western Montana Agricultural, Mechanical and Mineral Association." We propose holding our first fair the coming fall. This county was the only one in the Territory not seriously injured by the grasshopper raid the past season, and with moderately good crops and a good demand for our surplus produce, the farmers of this county are in a much better condition financially than at any time before since its organization. In fact, the prospects look flattering for the farmers of this county. With the discovery of new placers on Nine Mile creek, which bid fair to turn out well, and give employment to a good many miners. Stock of all kinds have been doing extremely well up to the present time, and are generally in good condition to go through the winter, should it not be too severe. There are two Granges of the Patrons of Husbandry in this city, and I am told they are in a flourishing condition. Owing to my remoteness from either of them, I have not had an opportunity to join, though my inclination is good.

THOS. NEWMAN.

Missoula Co., M. T., Jan. 11.

Rain Fall at Los Banos.

EDITORS PRESS:—An old subscriber to your valuable paper wishes to add to the knowledge and records of the State at large, a statement of the rain fall since January 1st, 1875; having bought a Standard Rain Gauge from Wm. Schmolz, of San Francisco. I am used to transmitting (in other parts of the State) such statements through any telegraph office free of charge; but here in Los Banos the telegraphist refused to transmit without paying the regular tariff. Will you please enquire at the headquarters, San Francisco, whether such messages will not be allowed free of charge on their line.

Los Banos, Merced county rain gauge, January 25th, 1875:

January 14, commenced to rain about 5 P. M.	inches.
January 15, to 7 o'clock, A. M.	1 10-100
January 16, commenced to rain about 2 o'clock, A. M., up to 4 o'clock, P. M.	1 53-100
January 18, from 4 o'clock, A. M., to January 19, 10 o'clock, A. M.	35-100
January 19, from 10 o'clock, A. M., to 5 o'clock, P. M.	6-100
January 23, from 12 o'clock, A. M., to January 24, 7 o'clock, A. M.	47-100
January 24, from 7 o'clock, A. M., to January 25, 7 o'clock, P. M.	21-100
Total.....	3 42-100

ADOLPH WIDMAN.

Los Banos, Merced Co., January 25, 1875.

[On making the enquiries suggested by our obliging correspondent, we learn that the company do not transmit such messages free of charge, unless they are written on Government blanks of the Signal Service Department.—Eds. PRESS.]

From Covelo, Mendocino County.

EDITORS PRESS:—We get several newspapers, but your journal is to me the most interesting of all. I always read it from beginning to end. I am glad that you take up so little of your space with general news. An agricultural paper, in my opinion, should confine itself almost entirely to agricultural subjects, and, of course, subjects akin thereto. Should you be tempted to depart from your present line, I think the usefulness of your publication would be much impaired.

We are comparatively isolated here—nearly one hundred miles from the railroad—so, as you may suppose, our farming is confined to supplying the wants of our immediate neighborhood. We are all more or less interested in stock, principally sheep and cattle. Our mountain ranges are well stocked with sheep of ordinary grade merinos, and a few small flocks of high grade merinos are being raised in the valley. In a few years, I think, we shall have thousands of high grade sheep pasturing on alfalfa in these valley farms. Alfalfa was tried by three or four farmers, last spring, on a small scale, and in all cases was a complete success. Now that we have titles to our lands we look for the display of much more energy than has hitherto been apparent. The season has been most favorable for farming; more land has been seeded to grain than usual, and the prospects of a good harvest are at present most encouraging.

J. A. CRAWFORD.

Railroads in Southern California.

EDITORS PRESS:—Report says the Southern Pacific railroad company will commence work at Spadra, in a few days, to extend their road thence east to this town. We learn, however, that their engineer with some force are now at work in the Cajon Pass, some twelve miles northwest from this place, working in competition with the Los Angeles and Independence company, who had preceded them (after surveying this route twice), with thirty or forty hands engaged in grading that Pass. What the result of this apparent collision may be, is a matter of conjecture.

Should the Southern Pacific company succeed in procuring a footing by purchase or otherwise of this new route to the numerous rich mines now being developed, lying north of this valley, none will doubt the speedy extension of their road from Spadra to this place, as well also of the immediate construction of the contemplated one from this place to Panamint. Placing their depot for this place on the west or north of this town, it becomes the junction of the Spadra and Panamint roads, and from which, proceeding eastward through the great San Geronimo Pass, to join the Texas Pacific, thus forming the San Francisco branch of that railroad.

Fears are entertained by the people of Los Angeles that the object of this company in seeking possession of this route, at this time, is to leave the thriving young city of Los Angeles "out in the cold," by extending their road from Bakersfield to Independence and Panamint, to connect with their work in this quarter, thus selecting a new route for the San Francisco branch road of the Texas Pacific railroad, by running eastward to the Colorado river, and joining the main trunk where it may cross that river. In procuring the control of the Cajon Pass, and building the road from this place to the mines, a two-fold object will have been accomplished; as this road will serve as part of the great southern branch of the Texas Pacific, which can be extended and connection made with their road in the San Joaquin Valley, at Bakersfield, by piercing the mountain range north of the Tejon Pass, where it is asserted a better pass has been found than that last named. The unfinished portion of the Southern Pacific road, lying between Bakersfield and San Fernando in the direction of Los Angeles, a distance of 140 miles—a rough mountainous way, it is presumed they will leave unfinished—the completion of which it ever is, will, with that company at least, remain a subject for future consideration.

Viewing the present aspect of railroad affairs in this quarter, one is led to suppose that San Bernardino—town and valley—are both likely to become prominent; as the Texas Pacific railroad will necessarily pass through the San Geronimo Pass (which is in sight of our town), in order to reach San Diego, so that our town will, ere long, become a railroad center, consequently compete successfully with both Los Angeles and San Diego, in controlling, to a great extent, the rich and growing trade of Southern California and Arizona.

San Bernardino, Cal., Jan. 22, 1875.

Is Grape Growing Remunerative?

EDITORS PRESS:—In your January 2d number under the head of "Agricultural Notes"—San Joaquin—"Grapes vs Wheat for Profit," your correspondent says: "Grape culture is doubtless one of the most profitable branches of rural industry"; and quotes the *Sonoma Democrat*, "that grapes are worth \$20 and \$30 per ton, and that \$50 per acre is a low yield for grape vines." That may be the case with regard to a few of the best market centers; but in the majority of the counties of this State, grape growing will not pay the cost of raising and transportation; emphatically is this the case in San Joaquin, Stanislaus, Merced and Tuolumne counties. Here in Tuolumne and Merced, hundreds of tons were offered at fifty cents per hundred, and few buyers. I have fifteen tons now rotting in the field. Our vine barrels are all full and no market for it. Our vines produce from 10 to 50 lbs. to the vine of as fine grapes as can be had in the State, but I and many others are grubbing them up, for there is no profit in them.

Is it not most in the interest of truth and fairness that both sides of the question be considered. From one who has had thirteen years experience in fruit raising.

R. HARDHAND.

La Grange, Stanislaus Co., Jan. 18th, 1875.

DON'T SELL THE BELTS.—The skin of an animal, whether cow, calf, colt or horse, that dies on the farm is worth more at home than at the tanner's. Cut it into narrow stripes, and shave off the hair with a sharp knife before the kitchen fire, or in your workshop on stormy days and evenings. You may make them soft by rubbing. A rawhide halter strap an inch wide will hold a horse better and last longer than an inch rope. It is stronger than hoop-iron and more durable, and may be used to hoop dry casks and boxes, and for hinges. Try it on a broken thill or any woodwork that has been split. Put it on wet and nail fast. Thin skina make the best to use it in its natural state. For other purposes it may be dressed.

The Abuse of Appetite.

The appetite is one of the least appreciated of nature's gifts to man. It is generally regarded in this work-a-day world as something to be either starved or stuffed—to be got rid of at all events with the least inconvenience possible. There are people who are not only glad that they have been endowed with sound, healthy bodies, for which nature demands refreshment and replenishment, but they are actually ashamed to have it known that they are sustained in the usual manner. The reason of this we are at a loss to conceive. Everybody admires beauty, and there can be no true beauty without good health; and no good health without a regular and unvarying appetite. We are disinclined to let appetite take any responsibility on itself. It happens to consider it too delicate, we try to coax it, perhaps stimulate it with highly seasoned or fancifully-prepared food. There are times when this may seem necessary, as in the case of a person so debilitated as to depend for daily strength on what he eats. But, usually, the cajoling process is a mistake. If the appetite of an individual in fair bodily condition be occasionally slender, it is no cause for alarm, and it should be allowed to regulate itself. It may safely be considered nature's protest against some transgression, and it is wise not to attempt coercion.

At certain seasons, as in spring and summer, the appetite of even the robust is apt to fail, and the relish for meats and heavy food to wane. This is all right enough, for animal diet in warm weather heats the blood, tends to headaches, and is generally unwholesome, unless sparingly used. On the other hand, fresh vegetables, berries, fruit and bread are cooling, corrective, and what the palate most craves. Don't be afraid to go without meat a month or so; and if you like, live purely on a vegetable regimen. We will warrant that you will lose no more strength than is common to the time, and that you will not suffer from protracted heat, as when dining on the regulation toast.

—Good Health.

Science and Faith.

Professor Tyndall lately gave the first of a series of six popular science lectures at the Free Trade Hall, Manchester. The subject was "Crystalline and Molecular Forces." Toward the close of the lecture, after a successful experiment showing the tendency of atoms to follow an architectural instinct, he said although he had seen this experiment hundreds and hundreds of times, he had never looked upon it without feelings of astonishment. The revelations of science were not in the least degree calculated to lessen one's feelings of astonishment. We were surrounded by wonders, by mystery everywhere. He had often in the spring time watched the advance of the sprouting leaves, and observed the general joy of opening life in nature, and had asked himself this question: Can it be that there is no being or thing in nature that knows more about these things than I do? Do I in my ignorance represent the highest knowledge of these things existing in this universe. The man who put the question fairly to himself, if he were a man capable of being penetrated by a profound thought, would never answer that question by professing that creed of atheism which had been so lightly attributed to him. "It is not," Professor Tyndall said, "always those who are charged with skepticism who are the real skeptics, and I confess it is a matter of some grief to me to see able, useful and courageous men running to and fro upon the earth wringing their hands over the threatened destruction of their ideas. I would exhort them to cast out skepticism for this fear has its root in skepticism. In the human mind we have the substratum of all ideals, and as string responds to string when the proper note is sounded, so surely, when words of truth and nobleness are uttered by a living human soul, while these words have a resonant response in other souls, and in this faith I abide, and in this way I leave the question."

BURIED KNOWLEDGE.—It is impossible to foresee to what extent scientists of our time will resurrect the buried knowledge of the past. The bricks of Nineveh, stamped with unknown letters in an unknown language, have been deciphered and translated; the existence and manners of the men who lived contemporaneously with the elephant and rhinoceros in Europe have been inferred from fragments of bone and stone; the domestic religion of the early Greeks has been explained for the first time after a lapse of 2500 years; and now we are about to have a translation of a comprehensive treatise on medicine, as understood and practiced in the valley of the Nile 3400 years since. A large papyrus, written in hieroglyphics and in excellent preservation, found in a pyramid, has been translated in Europe, and is now being printed by steam to satisfy the doctors that their learning and their ignorance do not date from yesterday.

FALL IN THE VALUE OF AMETHYSTS.—According to the *Journal of Applied Science*, the large number of diamonds that has been thrown into the market since 1872, from Brazil, has caused a great depreciation in their value. The first lots sent to Europe brought from \$500 to \$600 per arroba of 32 pounds weight; but as the quantity increased the price rapidly receded, and at last finally decreased to nothing. At present no offer can be obtained for any lots on hand.

HORTICULTURE.

Sierra Valley and Some of its New Flowers.

(For the RURAL PRESS by J. G. Lemmon, Sierra Valley.)

Sierra valley, California, is a lost branch of the great Utah basin. It is shaped like half of a Turkish cimeter sheath, split lengthwise. Piercing the high Sierra at the famous Beckworth pass, it extends its widened trough westward 30 miles, sweeping southward ten miles to within 20 miles of the lofty pass where now winds the Central Pacific railroad. Its average elevation is 5,000 feet; estimated extent, 300,000 acres; population, 1,800. Too cold for most fruits and many vegetables, yet its four thriving villages and hundreds of well-tilled farms and verdant meadows tell what prosperity may be derived almost solely from the products of meadows and forests.

When this crescent valley contained a lake, ages ago, the waters flowed over the low pass first named to be lost in the sea where now lies the great basin incrustured with the sedimentary deposits, by evaporation, during vast cycles of time. On the northwest, the widest sweep of the curve, the valley is bounded by lofty volcanic mountains, and through a rift in these, not long ago as world-forming processes are now understood, the waters were let out to form the far source of the Middle Feather river, and their bed was vacated to be soon clothed with verdure and afford food and shelter to the animal kingdom. The Flora of Sierra valley is hence very remarkable. It comprises the hairy, ash-colored, thick-leaved, dwarfed plants of its progenitor, the great basin, with the smooth, high-colored, graceful and aspiring plants of the heavily timbered, snow crowned Sierra, between the teeth of which it has been insinuated. Such is its isolation that many new varieties and distinct species of plants (and no doubt animals) have been generated here, a phenomenon of California reported by Professor Bolander in other localities, and affording rare fields for research by amateur naturalists. Particular families of plants are totally absent, compensated by the superabundance of others. Of over 800 species collected and forwarded the past two seasons by the writer to Dr. Asa Gray, of Cambridge, Massachusetts, for determination, an unwontedly large proportion belong to the Legume, or Pulse order. Fifteen species of *Fritifolium* (clover), six of *Hosackia* and fourteen of *Astragalus* have been noted. The last genus is so abundant, so curious, and moreover presents so many new species and varieties that I will limit this article to a brief discussion of the *Astragalus* family and its stragglers.

The word *Astragalus* is the Greek name for the ankle-bone. Its pertinence as the name of a plant "is past all guess." Gray says: The *Astragalus* genus are chiefly herbs with odd-pinnate (not tendrilled) leaves, and spiked or racemed papilionaceous (butterfly-like) flowers, followed by mostly large and thick or membranous pods. Torrey and Gray's Flora of North America describes forty species. Horace Mann's late Catalogue of Plants of the United States east of the Mississippi river, gives a list of eleven. Gray's Class Book of Botany for the Eastern States north of the Ohio river, describes but six species. Prof. Bolander's Catalogue of Plants, within 100 miles of San Francisco, enumerates a larger number again—eleven species. In a small district of Sierra valley, located near the Beckworth Pass, no less than fourteen species have already been determined. Half of that number may often be detected on one mound of sand raised by the wind. One singular species is found amidst the *Linosyris* and *Purshia* (sage brush.) It is hairy, prostrate and radiating, so as to form a white, dense mat or low sugar-leaf six to eight inches across. Its numerous pods covered thick with clotted hairs look like tufts of short wool. This species, a type of the peculiar characters of the great basin flora, was first found in Eastern Oregon, by one of the early explorers of this coast, Douglas, who named it *Astragalus Purshia*, in honor of the naturalist Pursh.

Another species is directly opposite in appearance, erect, tall, smooth and graceful, its inflated, translucent pods large as butternuts, colored crimson, purple and gold, hang like inverted, painted balloons from the outer branches of the stout plant securely rooted on the parterres of the mountains. This beautiful species, representing the peculiar characters of mountain flora, has been named by Torrey and Gray *Astragalus Hookerianus*, in honor of the great English botanist, J. D. Hooker, who with his illustrious father has done so much to collect and disseminate a knowledge of American botany.

The rest of the species approach these two types in varying degrees, according as found on the open floor of the valley, or climbing its timbered rim. Many varieties of these and other long established species have not before been seen by Dr. Gray, and three particular plants he declares "are certainly distinct species," and he has described and named them accordingly as new species.

One, the first found (1872), is of the great basin type; in part, prostrate, radiating, but smooth, long-stemmed and graceful, with small, bright, green leaves, blue and yellow flowers, and small brown or purple pods. Like a circular net spread under the bushes, the different stages of inflorescence on the radiating branches formed concentric, colored rings, reminding one of a home-made rainbow rug. This species, the first new plant discovered by the writer, at the recommendation of Prof. Bolander, was named by Dr. Gray *Astragalus Lemmoni*.

Another new species partakes still more of the arid basin type; wooly, prostrate, dwarfed, radiating, even for many inches before appearing at the surface of the ground, but with smooth, medium-sized, inflated pods, it forms a beautiful broad, soft, thick, bejeweled rug, but with a vacant center as if designed for a lamp mat. It is named *Astragalus Pulsiferi*, in honor of Mrs. Mary E. Pulsifer Ames, a botanist of Indian valley, where she found it about the same time it was forwarded from Sierra valley, in June last.

The third species, collected two years ago, but just this winter reported "new," is an upright plant of the mountain type, but with long, yellow, hard, tough pods. Dr. Gray proposes—which I gladly chronicle—to name it *Astragalus Webberi*, to honor Dr. D. G. Webber, of Sierra valley and Webber lake; eminent for his great practical benevolence and liberal patronage of science.

The last few paragraphs—penned not in the spirit of egotism—show what may be gained by careful search of almost any floral region of this wonder-land; and, it is hoped, may stimulate others to greater achievements in advancing knowledge.

Webber Lake, Sierra Co., Holidays of '74.

THE FIRST PLANING MACHINE.—The first planing machine ever made was, according to the *London Iron Trade Exchange*, constructed in the Holland street works of John Rennie the elder. "In March, 1814 (and we copy from an original memorandum book of the late George Rennie), the following plan was adopted for 'chipping' the cast-iron sides of a new lathe. The sides are placed close together, with their faces upward. Two planks of elm, one on each side, are bolted with their edges truly placed end upward. Upon the edges of the elm planks run four wheels on axles, which support a truck of oak. To the truck is fixed a slide rest, to which is attached a cutting tool. The truck is well loaded with weights, and pulled along the surface of the elm planks by means of a crab and chain. Thus the tool, in fact planes the iron lathe-beds straight." This was in fact the first planing machine, crude and rude as it was, and from it Whitworth, to whom the original apparatus was shown subsequently made a self-acting machine. We all know how important a tool it has become, and the wondrous saving it effects in the manufacture of nearly every kind of machinery.

SEWAGE UTILIZATION.—Recent investigations have raised grave doubts as to the propriety of using sewage as a manure, the vegetables raised by its means proving unhealthy. If we can light our streets and houses with the contents of the sewers, the great problem of what to do with the sewerage of great cities is in a fair way to be solved, but it will not do to be too sanguine. In this connection we may call attention to a ridiculous paragraph which has recently found its way into the public journals to the effect that an English inventor is making an illuminating gas from sewage water. It is said that forty-seven feet of gas is obtained from one quart of sewage water. One foot of sewage gas gives as much light as three feet of coal gas, and the flame is much clearer, purer, more healthful, and cheaper. The process consists in passing the liquid through two heated retorts, then through an iron cylinder called the hydraulic main, which is above the furnace, then through another heated retort, and next through a coil of metal piping immersed in cold water. Afterward the process is the same as in making coal gas.

IMPORTANT DISCOVERY IN LUBRICATION.—Professor Barker, of Philadelphia, and formerly of Yale College, has recently made a discovery which promises to be of great value to railroad men. It is a metallic paint, intended for application to "journal boxes" on railroad cars. The paint when heated to about 160 degrees Fahrenheit turns from its original color, which is a deep clear red, to a pure black, and immediately on cooling it resumes its redish hue. The journal boxes being covered with this paint, train hands detect at a glance whether a journal has heated or is heating. Their knowledge now is only gained when the wood work is ignited, and the damage has already been done.

LARGE HAMMER AND CRANE.—The largest trip-hammer in the United States has recently been completed at Nashua, New Hampshire, at an expense of \$75,000. The weight of iron in the machine is about 200 tons; the rams weigh 12 tons; its striking force is about 100 tons; and four large boilers are brought into use to furnish steam to run the 600 horse-power engine required to work it. The immense crane with which the iron that is being manipulated is hoisted into position is the largest in the country, and is rigged with modern mechanism so nicely that two men can easily hoist 50 tons dead weight.

The Breadstuff Prospects of California for 1875.

A couple of weeks since the extremely dry weather awakened apprehensions in the minds of all persons throughout the State that we were going to have a short crop this year and immediately Wheat went up, while the souls of importers of Bags and Bagging shrunk within them. But in the course of that fortnight things have altogether changed and the old fashioned California Winter is upon us again. This time, instead of needing rain, we have had too much of it, and the deluge from the clouds has swamped out not only Wheat fields but even towns and cities and literally sent the interior of the State a floating. Jupiter Pluvius has asserted his power, and now with a few showers in the Spring California has every prospect of an abundant harvest. The damage done by inundation to the growing crops will be comparatively small; therefore we may expect an average from the land sown at least equal to that given last year.

The breadth of land under crop being one-fourth greater, the product will also be one-fourth greater. Last year the crop equaled at least twenty-one million cents with fifteen million available for export. Up to the close of the year the equivalent of 6,145,234 cents had been exported. The amount has now nearly reached seven million cents, so that there remains on hand at present writing about eight million cents. The product of the next harvest ought to be twenty-six million cents with twenty million for export. There is, therefore, every prospect of low prices not only for the balance of the harvest year, but also for the next, unless there should be short crops next year in Europe or the East. Of this, however, there is no prospect, so that farmers and all concerned may prepare themselves to see Wheat go down to \$1.50 for Good Shipping.

This should impress on our merchants the necessity of seeking new markets and on our farmers the necessity of varying their crops, etc., a little. There are other European countries as well as England that need Breadstuffs and that import them. Such are the countries bordering on the Mediterranean as far as the Adriatic, and certain sections of Northern Europe. Such also are Brazil, Uruguay, Peru, the United States of Colombia, Central America, Mexico, and, though last not least, China, Japan and India. To these several countries we ought to send as large a surplus as we will have to export from the next harvest year without taking England into account a of Hog raising by our farmers than has hitherto been the case.

There are other industries not so easily followed by our inexperienced agriculturist or for which all parts of the State may not be equally suited that can to a great extent take the place of Wheat growing. Such are the cultivation of Cotton, Tobacco, Beet Sugar, etc.

With these and with the growth of manufactures in the State, and with the seeking out of new markets for our Breadstuffs, the farmers of the State need have no fear for the future. Given an extended home market and new foreign ones, and our people need not be afraid of the result, though the State had 40,000,000 cents to export next year instead of 20,000,000.—*San Francisco Journal of Commerce*

ENGLISH RAILROAD IRON.—The importation of English railroad iron into the United States is falling off at a rapid rate. The average monthly importations for 1872 was 37,000 tons; for 1873 it was 15,000 tons; while for 1874 it has fallen to 9,000 tons. America is now nearly independent of Great Britain in the iron trade, and will soon prove her powerful competitor in foreign markets—British iron masters see this, and are seeking to save themselves by establishing free trade between this country and Canada, and establishing branch manufactures in that province.

USEFUL INFORMATION.

THE improved German bleaching process, known as Pubetz's, is spoken of in foreign journals as an important success. It consists in first dissolving about nine pounds of permanganate of potash or soda, in water, and then adding one-fourth this quantity of sulphate of magnesia dissolved in water. The color of the liquid is then a very fine violet, and the amount thus prepared will suffice for about two hundred and twenty pounds of wool. A sulphurous acid bath is also prepared, heated to seventy-seven degrees, Fahrenheit, when used. The materials to be bleached are first thoroughly cleansed, and then kept in the permanganate bath for a quarter of an hour, on withdrawal from which they are found covered with a deposit of peroxide of manganese. They are next introduced into the sulphurous acid bath, which reduces the peroxide of manganese to the peroxide, the salts of which are readily removed by subsequent washing. If the yarns or fabric resist the bleaching process, they are treated with hydrochloric acid, containing one part of commercial acid to twenty parts of water. One special advantage of this process is, that it affords a means by which even indigo may be discharged by a series of successive bleachings, leaving the stuff fit for re-dyeing.

NUMBER OF AMERICAN NEWSPAPERS.—There are now published in the United States and Canada 7,769 newspapers—of which number 7,360 are published in the States, and 409 in the Dominion of Canada. There are 400 papers printed in New York city.

THE ANTIQUITY OF IRON.—We are relieved from any doubt as to whether iron was in use 3,400 years ago by the discovery of a wedge or plate of iron imbedded in the masonry of the Great Pyramid itself. This instructive relic, like the half fused magnifying lens found at Pompeii, throws much light on questions of early workmanship. It has been a great puzzle to those who attributed the first use of iron to a date not much more than 2,900 years back, how such sharp and well defined hieroglyphics could have been cut by the ancient Egyptians on porphyry, granite and the hardest stone. From the certain proof that iron had been produced and wrought in the age of King Cheops, 5,400 years ago, we can better understand how the innumerable and exquisitely sunk symbols and figures were wrought on tombs, temples and sarcophagi. And more than that, from the great similarity in the mode of treatment that prevailed from the time of the Ptolemies back to the very earliest known Egyptian inscriptions, we have sometimes closely approaching a proof of the use of iron as far back as the fifth Egyptian dynasty, if not in the time of Moses himself; that is to say, six thousand three hundred years ago.

PREVENTING THE DECAY OF SHINOLES.—A CHEAP WAY.—Take a large kettle or tub that will hold about a barrel and fill it half full of wood ashes or potash lye, add to the liquid about three pounds of alum, and as much salt as will dissolve in the mixture. Make the liquor quite warm, and put as many shingles in it as can be conveniently wetted at once. Stir them up thoroughly, and when well soaked take them out and put in more, renewing the liquor as necessary. Then lay the shingles, when dry, in the usual manner.

After they are laid, take the liquor that is left, put lime enough into it to make white-wash, and if any coloring is desirable add ochre, Spanish brown, lamp-black, etc., and apply to the roof with a brush or an old broom. This wash may be removed from time to time. Salt and lye are excellent preservatives of wood. It is well known that leach tubs, troughs and other articles used in the manufacture of potash never rot. The become saturated with alkali, turn yellowish inside and remain impervious to the weather.

WEIGHT BY MEASURE.—It will be a very great convenience in the family, and sometimes elsewhere, to remember the following:

Wheat flour, one quart is one pound.

Indian meal, one quart is a pound and two ounces.

Batter, when soft, one quart is one pound and one ounce.

Loaf sugar, broken, one quart is one pound.

White sugar, powdered, one quart is one pound and one ounce.

Best brown sugar, one quart is one pound and two ounces.

Eggs, average size, ten eggs are one pound.

Sixteen large tablespoonfuls are a half pint, eight are a gill, four are a half gill, etc.

SOMETHING NEW IN THE PRESERVATION OF FRUIT.—The following method for the preservation of fruit has been patented in England. The fruit is placed in a vertical vessel in layers, separated by layers of pulverized white sugar, and is then covered with alcohol of 80° Gay Lussac. After twelve hours the closed vessel is inverted and the maceration allowed to continue from 12 to 72 hours, according to the nature of the fruit, which is then removed and allowed to drain and dry. About two pounds of sugar and two pounds of alcohol are recommended for four pounds of fruit.

HOW TO PREVENT DAMP FROM ENTERING INTO STONE.—The following ingredients melted and mixed together and applied while in a hot state to the surface of the stone, will prevent all damp from entering into it, and also those vegetable substances from growing upon it: 1½ pounds of rosin, 1 pound of Russian tallow, 1 quart of linseed oil. This simple remedy has been proved upon a piece of very porous stone made into the form of a basin, and two coats of this liquid being applied, caused it to hold water as any earthenware vessel.

FIRST USE OF ANTHRACITE.—It appears by letters embraced in the Penn manuscripts that anthracite coal was found in the Wyoming region, and a specimen sent to England in 1766. Heretofore it has been supposed that the discovery was first made about 1770 or 1771. In 1769, Thomas Penn, writing from London, refers to coal hills near Pittsburg. A map of Pennsylvania, published in 1770, notes the existence of coal in the vicinity of Pottsville.

HEAT IN THE HUMAN BODY.—If the heat which a human body gives off in twenty-four hours could, consistently with life, be retained within the body, its temperature would, at the end of that time, have reached 185 deg., Fah., a temperature above the point of coagulation of albumen, and high enough to cook the tissues.

OREGON PINE.—A recent test of the relative strength of oak and Oregon pine, made at San Francisco, with bars an inch square and three feet long, showed that the pine was equal to the oak. Both broke under the same weight placed in the middle of each bar, namely, 260 lbs.

From the Granges.

Petaluma Grange.

The installation of officers on the 9th ult. was an occasion of much pleasure in Grange Hall. S. W. Walker, P. M., officiated in a happy manner, assisted by Bro. Wisnell, A. S. Worthy Master Hammond and others enlivened the occasion with speeches and remarks too lengthy for us to report. We learn the above facts from the Secretary, who sent us the following song, composed and read by Mrs. C. A. Parker.

Woman in the Grange.

[TUNE—A Starry Night for a Ramble.]

The car of time is flying fast,
We're riding on the train,
I have a word to say to you,
I hope you'll not complain;
The best of all I have to tell—
'Tis something very strange,
That women are permitted
To come into the Grange.

There are pleasant institutions
In the East and in the West;
But one among the many is
The Grange, I love the best.
Now, who'd have thought ten years ago
Of there being such a change—
For men to take their wives along
With them into the Grange?

In former times we had to work
At home, the live-long day,
While men went out to chat and talk
And while the hours away;
But thanks to those kind gentlemen
Who invented this great change,
And invited wives and daughters
To come into the Grange.

Dear Husbandmen, both far and near,
This truth will long remain,
If happiness is what you wish,
Don't of your wives complain;
But rather let sweet charity
Within your household reign,
Build up your homes in peace and love,
Rich blessings you will gain.

While in this school we'll act our part,
The rules we will obey,
All good instruction we will keep,
The bad we'll throw away,
Now since you have concluded thus
With us your course to change,
We'll get a dinner for you all
And help you in the Grange.

In Memoriam.

J. L. Mock, A. W. Thompson and George Hammond, Committee, reported the following: WHEREAS, The Almighty in his wisdom and infinite love has taken from our Grange and this earthly life our sister Rebecca Higgins to her eternal life in the "Mansion not made with hands eternal in the Heavens," and, whereas, the deprivation of her society, temporary as we hope and believe it to be, is an affliction to us only less than it is to her husband, children and family connections, as their relations with the dear departed were more close than ours. Therefore, be it

Resolved, That this Grange tender their expression of sympathy in their affliction to our worthy Brother Higgins, and to the other members of the family of our Sister, who has taken the highest degree in our Brotherhood of Love and rests with our Redeemer.

Resolved, That in being separated from our dear Sister we recognize a great immediate loss; but are led by our belief in the Divine love to hope that through the holy teachings of our Order, we may learn here on earth to so love one another that when called upon to lay aside our implements of labor in this world, we may be fitted to meet our departed Sister on the further shore of the Great River, and be received into the perfect love of Christ our Lord.

Resolved, That these resolutions be spread on the minutes of this meeting and the Secretary be directed to send a copy thereof to our Brother Higgins, the Petaluma Argus and PACIFIC RURAL PRESS.

FREEMAN PARKER, Sec'y.

Petaluma, Cal., Jan. 11, 1875.

Two Rock Grange.

EDITORS PRESS:—As I have never seen anything in your most valuable paper about Two Rock Grange I take the liberty to send you a few items to let you and the many readers of the Press know that we are still in existence. We are located in one of the most fertile parts of Sonoma county. Our hall is in the village of Two Rock, eight miles west of Petaluma. Our Grange is prospering finely. On the 5th of this month we had our officers installed by Deputy G. W. Davis, of Santa Rosa; also a harvest feast, one sister having passed through the mysteries of the fourth degree on that day. We now number fifty-two members in good standing. The social features of our Grange, like that of many others, is necessarily neglected, by having degree work at every meeting.

The farmers in this part of the country have sown an enormous amount of grain anticipating a dry winter, such winters being the most successful in these parts. We have had some very heavy rains in the last few days, which will make grass plenty and insure good crops for that already sown. The ground is full of water and plowing is stopped but at present writing the weather is clear with a heavy wind blowing from the north, and with the prospects of another dry spell, when the farmers will finish their reeding.

Inclosed find a list of officers elected and installed to serve for the ensuing year of Two Rock Grange. J. C. PURVINE, Sec'y.

Two Rock, January 26th, 1875.

Cloverdale Grange.

EDITORS PRESS:—Seeing a notice in the RURAL requesting the names of officer in different Granges, I send list of officers of Cloverdale Grange No. 63: J. H. Cooley, M.; H. Kier, O.; Mr. Howell, T.; F. W. Davenport, Sec'y.

F. W. D.

Cloverdale, January 25, 1875.

Guznac Grange.

EDITORS PRESS:—Our Grange has been removed to Middletown, Lake county. All communications had better be addressed to Middletown, Lake county. WM. C. GREENFIELD.

Stanislaus Grange.

EDITORS PRESS:—We have heard of your wedding the Granger, and if it is not too late would like to offer our congratulations; and yet we miss the weekly visits of the Granger so much. On the 9th of this month the officers elect of Stanislaus Grange, No. 4, were installed by Worthy Deputy, Brother Joseph Reyburn, assisted by Worthy Master, J. D. Spencer, who embraced the occasion of retiring from the Worthy Master's chair, which he had filled so long, to make quite a lengthy speech, reviewing his connection with the Order in the past and tendering his best wishes for the future. Brother Reyburn and Brother Bangs also favored the Grange with some very pertinent remarks, and had it not been that "wimmin mustn't speak in meetin," I think some of the sisters might have found something to say. As it was, however, they contented themselves with sitting still and looking wise, "wise as we could, you know."

E. J. TURNER, Sec'y.

Modesto, Stanislaus county, Jan. 24.

Cahto Grange.

EDITORS PRESS:—Having received copies of the RURAL sent to the Secretary of Cahto Grange, and being now a subscriber, I thank you very much for the presents. J. H. Braden has been newly installed Master, and O. R. Bennett, Treasurer. JOSEPH H. CLARKE,

Sec'y Cahto Grange, P. O. H. No. 202.

Cahto, Jan. 25, 1875.

Azusa Grange.

EDITORS PRESS:—The Azusa Grange is in a flourishing condition, yet they have to regret the continued absence of their Worthy Master, W. W. Maxcy, who has been confined to his house ever since October last, by a severe attack of sickness.

We have had thirteen inches of rain this month. The first rain commenced on Saturday night, the 16th inst., and continued 76 hours; result 9 3/4 inches. The second set in on Sunday night, the 24th inst., and lasted 43 hours; result 3 1/4 inches. Total for the month to date, 13 inches. The crops that were sown prior to the rain, look remarkably well and promise an abundant yield.

Much interest is being manifested in behalf of the projected railroad that is designed to connect Independence, in Inyo county, and the Panamint region with tide water, in the Bay of Santa Monica, via the City of Los Angeles. The success of this undertaking would have the happiest results, as it would afford a competing line with the Southern Pacific Railroad, that is now penetrating this part of the State in several directions. Accept our congratulations upon the union of the Press and Granger. May your influence in the good cause be greatly multiplied thereby.

Yours, fraternally,

J. TURBerville GORDON.

Azusa, January 27th, 1875.

Grangers' Council.

Delegates from the several Granges in Nevada met in council at Carson on the 21st and 22d instants. Owing to the inclemency of the weather and bad state of the roads, a majority of the delegates did not reach their destination until the 21st. The attendance would have been greater had the weather been more favorable. The council organized by electing R. J. Livingston, of Carson Valley Grange, President; C. W. Chedie, of Eagle Valley Grange, Vice-President; J. L. Griffin, of Eagle Valley Grange, Secretary; A. D. Treadway, of the same, Treasurer; A. A. Longley, of Alfalfa Grange, Doorkeeper. A Constitution and By-Laws were adopted. Most of the Granges were reported to be in a prosperous condition—some of them extremely so. Means were discussed and adopted to insure the organization of Granges in every part of the State during the present year. Several measures of importance to the Order, but not to the public generally, were discussed and passed upon. Among the most important resolutions of a general nature were the following, which were discussed at some length and unanimously adopted:

Resolved, That it is the duty of the present Legislature to devise means to make known the agricultural resources of this State, and invite immigration thereto.

Resolved, That for the purpose of encouraging immigration a commission should be established the duty of which should be to disseminate information concerning the climate, the quality of the soil, the value of farm products, stock raising, the price of land and the mode of obtaining the same, and the different parts of the State where settlers can locate to advantage.

Resolved, That the discriminating rates of fare at present exacted by the Central Pacific Railroad Company is destructive of the best interests of the State, and that it is the duty of the Legislature to memorialize Congress to establish such rates on said road as may seem just and equitable as between the people and the corporation.

The Council elected the following named Patrons as its Executive Committee for the term of one year: G. W. Huffaker, of Alfalfa Grange; George W. Chedie, Eagle Valley Grange; R. J. Livingston, Carson V. Grange; B. F. Riley, Paradise Grange; K. Cleaver, Meritt Grange; Elias Owens, Washoe Valley Grange; A. H. Hawley, Wellington Grange.

The Council adjourned to meet at Reno on the first Monday in April next.—Nevada State Journal.

THE GRANGER AND RURAL PRESS.—The California Granger, has consolidated with the PACIFIC RURAL PRESS. We regret to see our old friend go out of existence, but commend the choice made of a paper with which to join. For we regard the Press as one of the ablest and best of our agricultural exchanges.—Hoosier Patron.

The Chamber of Commerce and the Grangers.

President W. F. Babcock, in his annual report, thus refers to the Grangers:

"It is much to be regretted that so prominent a class as our farmers should have suffered themselves to occupy a position more or less at variance with the regular mercantile interest of the State. That they have acted without sufficient consideration as to the intrinsic merits of their condition, as compared with that of the Grangers in the Western States, is every day becoming more apparent. Our farmers, even in the most remote districts, are not far removed from the tide-water, and their products are exported at rates less expensive than formerly, or they would employ the old methods of reaching the markets. We may be permitted to indulge in the hope that wiser councils will prevail, and that our business relations will be placed upon a footing which shall hereafter prove to be more acceptable both to themselves and our own merchants."

Much as one might say of some poor cur kicked off the crowded walk in California street and trod on till he yelled: "He's nothing but a dog, you know! but then he isn't to blame for that; it's nothing but a way he has."

Coming as they do from so distinguished a personage as Mr. Babcock, the President of the Chamber of Commerce, in his address to that august body, the remarks made by him and above quoted, we cannot with propriety pass without comment. Farmers have no right to attend to their own affairs, because in doing so, they interfere with trade, is about as near as words can paint the thoughts upon this head, of merchants here. The men who till the soil and raise our crops should stay at home and work; not question how these crops are sold; this last is not their trade, and they can have no interest in it; are they not cared for by the purest and best of all the men in town? Don't these have charge of their affairs and strictly act in all things for their good, for all their goods? Are not their old, self-constituted agents with their experience the best that they can wish? Perhaps so, but possibly not, and monstrous as the proposition is, the producers claim a share of profits which result from their labors; the merchants skin too close our pans of milk, and we think they should not take all the cream. Will some one, who is of this princely class of merchant kings, explain why the farmers and their factors are so differently circumstanced as to wealth? How it occurs that the first are rich, the latter poor and that these conditions result from the business of raising and selling crops. The farmer owns the crop at first, he has it in his hands, or ought to have, and it would seem as though he might so far control its sale as to get some of the good from it when it is clear there is a gain somewhere.

Take any year in the past twenty, and probably without exception, the farmer and the man who sold his crop may be compared and the same result attained. The one has risen with the lark, the other, often after an expensive one, but seldom before the sun has long been up. At night, or rather long before it, the factor quits his work not very much fatigued; the farmer drags his weary limbs to rest. One works hard all the time, the other labors but little and never hurts himself by work.

From the beginning of the year until its end the farmer and his folks economize in every way, the converse is the rule in the other class; even the employes show the same distinction; the farm laborer is hard-worked and poorly clad, the clerk or salesman is sleek and jaunty, easy, and a type of taste and expense in clothing and personal habits.

The contrast don't end there; the very horses employed show the same condition of labor on one side, ease on the other.

Naturally if rules of cause and effect be considered, it should result that those who work hard and economize should become more wealthy than those who don't; but every person who knows anything is aware that just the reverse is here the fact. Take any farmer who has stayed at home and steadily worked his farm and compare his status with that of his commission merchant and trelater, as a rule, is much the richer man, and this notwithstanding the fact that the farmer has had in his favor the advance in the value of his farm.

On the other hand the producer who has not closely remained at home, but has watched his sales and taken advantage of the markets, has always done better than he who did not, and the palpable solution of this enigma which we have presented is the truism that hard work can not compete with head labor.

Therefore, is it to be wondered at, or as the worthy President of the Chamber of Commerce intimates, to be deplored, that those who use their hands should occupy their minds with their affairs, and, as their better halves do a goodly share of the manual labor, their wives should be associated with them also in this mental work?

Can it be that farmers must not join in consultation upon matters which concern them as a class, and act upon the result of their deliberations, when the merchants, who rebuke them do it through the President of their Chamber of Commerce, which is, to all intents, a Grange? A. W. T.

FOR THE KANSAS SUFFERERS.—The Patrons of Livermore Valley will give a ball on the 22nd of February, for the benefit of the Kansas sufferers.

The S. F. Board of Provision Packers to Home Producers.

We give below the circular recently issued by the above named association. The only surprise which this will create in the minds of our readers will be a wonder that this very thing has never been done before. The statements and views put forth in the following circular are only such as have become current among producers, dealers and consumers. The Board of Packers have merely reduced them to a definite form. We look upon this movement as one of the good signs of the times. We hope that this Board will be up to the necessities of the situation in energy, means and fair dealings and we know that our farmers and stock raisers can supply the raw material. In nothing has California made greater progress than in the improvement of the stock of swine. Following is the circular issued from the office of the Board, December 15th, 1874:

To the Farmers and Stock Raisers of California:—The undersigned, constituting the San Francisco Board of Provision Packers, comprising all the firms engaged in the business in this city, desire to call the attention of the farmers and stock raisers of our State to the profit and successful results attending the breeding and fattening of superior breed of hogs for this market.

During the past three years the low prices of hog product at eastern points, has enabled eastern provision packers to supply, and at times glut this market with pork product, thereby decreasing the demand for California hogs, and making it comparatively unprofitable to raise them.

A most radical change has occurred in this respect, however, and one which bids fair to be comparatively permanent. Hogs on foot are now selling at Chicago and other packing points at 6 1/2 @ 7 1/2 cents, with a large demand and scant supply. Prices for pork product have advanced 30 @ 40 per cent., without any prospect of a return to the late very low prices. Under these circumstances we beg to respectfully suggest to all stock raisers in our State the advisability and profit certain to result from greatly increased attention to this industry; however unprofitable and liable to the contingencies of a European demand our agricultural crops may be, there is the moral certainty of high prices for hogs during the next two or three years. A high freight from eastern points of supply affords a constant protection. The home demand for pork product is constantly and rapidly increasing, and our local firms in this line are yearly doing a larger business.

Under these conditions we respectfully urge increased attention on the part of our farmers and stock men to the raising and fattening of hogs for this market. They always command cash and are comparatively much more remunerative to parties who take the trouble to pay the necessary attention thereto than ordinary crops of cereals.

Reliable statistics prove that during the year 1874 provision dealers in this city have paid for Eastern pork product, \$1,400,000, gold, while during the two years previous the amounts were much larger. Reliable estimates of cost made upon information derived from intelligent farmers in the Sacramento valley, prove that on the average, it costs about \$1 @ \$1 05 per hundred pounds to place wheat in sacks on board ship, including all costs, starting from the standing crop. In more distant localities this is still further increased. The comparatively small balance left to the farmer proves conclusively that at least a part of his crop might have been used to much better advantage in fattening hogs, as, aside from the direct pecuniary advantage, were this generally done, it would induce better prices for grain.

As our State is more closely inhabited, and our farms decrease in acreage (a condition of affairs gradually approaching), the advantages of this industry will become plainly manifest, and it will assume its proper importance and development.

With a remunerative market at this date, and a certain prospect of further improvement, there can be no error in stimulating the production of pork product in our State.

There is no reason why our merchants should be obliged to send millions of dollars east every year for pork product. It can be raised here of better quality, and prove more remunerative by far than it has been to the farmer in the Middle States.

With these facts before them, we respectfully urge all farmers and stockmen in our State to make preparations hereafter for a greatly increased supply of hogs, which are certain to meet an appreciative market.

MICHELSEN, BROWN & Co.
J. Y. WILSON & Co.
S. F. PACKING & PROV. Co.
W. K. DEITRICH,
Manager.

L. HENTRICH.
H. ROSSBACH.
R. F. BUNKER.
MULLER & KENIG.
G. WALTER & Co.

Published by order of the Board.
H. ROSSBACH,
Secretary.

W. L. MERRY,
President S. F. Board of Provision Packers.



The Singer.

By ALICE WILLIAMS.

A singer went stinging down the world,
Now in green meadows and now in the town,
Anon where the smoke of the battle whirled,
Then off where the autumn woods lay brown.

Singing, still singing! Ay, nothing but that—
When the trumpets summoned the hosts to war,
And the soldiers rushed at the rat-tat-tat
Of the deafening drum, she stood afar,

And sang of the conflict in ringing tones,
Of the laurel wreath of the victor's death—
Till the dying silenced their shuddering moans
And smiled as they drew their final breath.

She sang of Duty, she sang of Love;
Of all that is noble, and grand and good
Below, of the joys of the soul above—
Some scoffed, or smiled, and some... understood

She sang of Duty. Her weak hands failed
When she strove the burden of life to bear,
But through all the song no sadness veiled,
As she sang, still sang, in her white despair.

She sang of love. From her eager hand
The brimming chalice was dashed aside,
When her steps drew near the Unknown Land
She gazed on the past and wistfully sighed:—

"In all the fray I have struck no blow—
Ah! well-a-day, but the hours are long!
When the Master comes what have I to show
Save here and there the thread of a song?"

But the warriors knew at the conflict's end,
When the roar of the battle died away, [blend,
That the song which seemed with the cannon to
Had strengthened each arm in the deadly fray.

And the souls that in Duty's lonely way
With faltering steps had journeyed long,
When the voice of the Singer reached them that day,
Felt the hearts within them grow brave and strong.

And the happy lovers that hand in hand
Wandered together the wild world o'er,
From the song they but dimly could understand,
Learned a deeper love than they knew before.

Farm House Chat.

By MARY MOUNTAIN.

Among the good things in the Grange Department of a late RURAL, I enjoyed the wide-awake "Notes and Comments of Sister C. A. C.," and if the other sisters are like-minded, we may expect to see the Order of Patrons go marching on, even as the soul of John Brown.

"Glory, glory, hallelujah!"

If Grange influence will help women to think, and act, and dress for their own health and comfort, and with no pitiful submission to the intangible bugaboo called "they," (otherwise known as Dame Grundy), why, then the Kingdom of Heaven is at hand; yea, at our very doors. Is that too rashly stated? Nay, when large numbers of women become both intelligent and independent enough to do the thing that is right, and wear the clothes that are suitable and comfortable without inward quaking, or slavish fears of anybody seen or unseen, then will be the beginning of a race strong and brave enough to carry forward reforms that we only dare touch with our timid hopes and fears. And so when the Kingdom of Heaven is come, every little child will have its right of comfort and decent life. Not one will be wholly left in the clutch of ignorance and vice; not one will be pushed aside and trodden down with heedless cruelty.

I am not yet quite clear whether political power will make us any better, brighter or happier; but if women's strength is surely needed to reform the world in this direction, let her begin the good work at once by reforming herself into more vigorous habits of body and mind.

No one needs to be told at this present moment women have hardly enough strength for present duties, real or imaginary. The duty of keeping up the fashions is imaginary in one sense, but terribly real in another; and for those who would joyfully shoulder the affairs of Government, there is but one course—they must free themselves from the persistent worries of fashion. Of course there must be fashion, but it should be subordinate and harmonious with a well-ordered life; not dominating over all lives, and practically enslaving millions of women who ought to be free.

Hence now this hint from C. A. C. that women of the Granges are moving in this matter and preparing to adopt some sensible plan of dress reform, it has occurred to me that the strong-minded and progressive women would surely unite with them upon a platform that might be made to last for the next four years—four years!

Ah, what a cheerful outlook! Long suffering women might drop her ruffles and take time to breathe and rest her jaded soul and body.

You see she cannot possibly rest as matters stand now, for unless she hurries with all her might, those yards upon yards of ruffles and

other trimmings will go out of style before she can get them placed upon her back, or around her feet as the case may be.

I have mentioned four years as a period having a certain political significance and therefore likely to please those who picture the stirring reality of leading off in a great Presidential tussle, from which they might gently subside into the lesser turmoil of adjusting our plain republican fashions for the same space of time.

If it will suit any better to have the toilet business attended to first, there will be no serious objection; for if managed with good sense it will no longer exhaust the whole mental and physical capacity of its devotees.

If any one will get up a better plan than this, it shall have my cordial sympathy, and I would gladly do whatever I can to assist women into the right sort of clothes, and then—stop fussing! Why may not we be as free from fuss as the men? You will think I am never tired of preaching up the grandmothers; but I do like to remember their pongee gowns and camel cloaks that were as fashionable at the end of seven years as at the beginning.

Much of the newspaper talk about dress reform has reference to the fashion of under-clothing, and there is rumor of a Mrs. Flint, whose patterns of all garments have been admired in Boston, and await only for the protection of patent right. Some of them seem very similar and not superior to my own inventions, that I have long enjoyed and often recommended to others, but not very successfully. So I read of the Boston movement with hearty approval—my faith grows by what it feeds upon, and my heart (having room) swells with pride that American women are really about to assert their own good taste, and a right to be comfortable. But a trip to town is fatal to this "proud swelling," and my faith comes home in a state of collapse, having no patience with reform that moves so slowly. It should be so speedy and spirited as to make a woman ashamed of dragging her clothes through all the filth of the streets. But abler and wiser pens than mine have failed to convince American women that trains were never intended for slop-work, and are only to be worn in places where everything is dainty and clean. Perhaps the reason of failure is that the women who degrade themselves and their dry-goods by this dirty business of street cleaning are the women who never read. Bless you! they have no time to read!

Again, I have a quarrel with the hats. So lately they were in danger of tipping off in front, and now they slide into an equally dangerous incline the other way. At least, it looks dangerous, and is very tiresome for those who must notice the ungraceful poise and broken outlines. If girls will be giddy, and wear their hats at all sorts of capricious angles, why, never mind; youth and beauty are not easily spoiled by an ugly fashion. But for steady-going, middle-aged women, whose well-earned wrinkles need the friendly shelter of a hat brim, what could be more restful and becoming than to see the head-covering in a position "where it would do the most good." And here is the very mischief of that slavery I was talking about.

Hardly a woman has the courage to resist the latest decree, even though she knows it is fatal to her style of beauty, and gives her an expression quite foreign to her true character.

"O, my!" says Mrs. Flutter. "it really won't do for me to wear it so far back. It shows all my wrinkles and gray hairs, and feels so very foolish."

"You can get a false front that will look nicely," replies the milliner, "but the hat must be worn as far back as that." The style is very decided at present.

So it is perched at an alarming angle, and the meek little woman walks off, holding her head forward and hunching her shoulders in the effort to keep the heavy top-rigging at the required tilt.

Not hats alone are enjoyed(?) in the same dubious way, and the aggregate of discomfort imposed by fashion and endured heroically for its sake is simply immense.

And the merit of this martyrdom is a mystery to me, though I can always admire the zeal with which individual samples of suffering are denied or defended. Ladies will innocently confess in this wise:—

"Why, I used to enjoy walking so much, and could walk as far as anybody; but now a very short distance tires me out, and really, I cannot walk."

"My dear madame, the fault is mainly in your boots. Those long, pointed heels force the muscles from a true—"

"Dear me! You are entirely mistaken. There is no trouble at all with my boots, as I always make it a point to have them comfortable."

Very true. They may not pinch or hurt while sitting still; but for continued standing or walking no surer instruments of torture could well be invented, as all will be ready to admit as soon as they go out of fashion.

So we see that high heels not only cause direct suffering by burning the muscles and forcing the toes forward to the painful encounter of corns and bunions, but indirectly they hurt by preventing much healthful exercise; and so unconsciously thousands are victimized by their boot-heels.

A FAIR HIT.—Every fashionable woman in Paris hangs to her belt an atlas bag, a fan, a card case, a pocket book, an umbrella, a turnip watch, a pin-cushion, some ivory tablets, and a little mirror. And the sons of women like these are expected to knock the nonsense out of Germany some day.

The Gift of Thought.

[Written for the PRESS.]

How wonderful this great gift which God has bestowed upon man to raise him above, far above the lower grade of animals. Indeed, how wonderful and inexplicable this power of thinking is. All we can know concerning it is that God, in His great goodness has given us this blessing of indulging in silent contemplation which alone can be read by Him and ourselves. Were it not for our many thoughts, we would never be able to reach the intellectual standard that we now attain. Our advance in intellect is entirely dependent upon our thoughts. This is why we go through such a course of study, a quarter part of which appears to some of us to be of so little value as we will never be called upon to make a practical use of it. But the idea is to bring out and train our thoughts, to cultivate our minds, and to prepare us to battle more successfully with the world. These thoughts of ours are constant and innumerable. Everything the eye rests upon or the ear hears conveys to us some idea. Were it not for the senses and the accompanying thought, how often would we find ourselves going astray, and even now we do not use this blessed privilege as we ought. We often find ourselves acting without sufficient thought. Some unkind word has been spoken, or in various other ways we have injured another's feelings by our heedlessness and want of thought. It is a sacred duty of ours to use the precious privilege to perform some good and wise work. In the first place they should be directed to God to acknowledge Him as the Supreme Being, and that they may be pure and holy, for the bible tells us "out of the abundance of the heart the mouth speaketh." Thoughts that defile the mind should be put away at once, as we would take a burning coal from our carpet. Thoughts of an evil character if permitted to remain would, in time, corrupt all the good ones that had ever had possession of our hearts. How thankful we should be that we are made capable of thinking. Does it seem as though it were possible for us to live without thoughts. Would it not be dreary for us without the pleasant memories of our past lives which cling to us so long to cheer and illumine our path, so brightly helping us to bear our trials and sorrows much better. How sweet at twilight, when the departing sun carrying with it the last remnant of the day and its cares, sinks in the west, to sit at the windows looking out, and busy ourselves with pleasant thoughts of the day, so nearly past, and those of days long since gone forever; to think of home, if you are absent, of dearly loved ones there; the many joyous scenes we have witnessed; the kind, friendly word given in grief's dark hour; the pictured thought of the return home and happy meeting of broken family circle. And when alone we can indulge in such happy, precious thoughts, as that all our feelings of loneliness will depart. We are living over again all those past pleasures with the friends who then shared them with us. I often think from these after thoughts I really derive more perfect good or pleasure than when I had such privileges. For at such times we feel too excited to realize what we are enjoying, and so pleasures brighten as they vanish.

"Thoughts are to us of far more worth
Than glittering gems of purest ray,
The dearest things of all on earth,
Our own sweet thoughts to-day."

"S. L."

PATIENCE.—There is no kind of vocation, no degree, neither spiritual nor temporal, no estate and condition of life; which can lack this excellent virtue, Christian patience. For, as it is some time day, some time night, other whiles cold and frosty winter, other whiles present and lusty summer, and other whiles spring-tide, so the life of man and woman is mingled of sweet and sour things. It hath commodities and pleasures, and it hath griefs and displeasures. There be things that delight and refresh us and there be as many things which molest and vex us. For who is there living, either temporal or spiritual, which can truly report that he hath had continual health and prosperity, without any storm of adversity? Wherefore patience is necessary unto all sorts of men.

SLEEP IN THE OLDEN TIME.—There are yet to be met with, in some old castles, monstrous old fashioned bedsteads, in which formerly whole families used to sleep together. This custom dates back to the times of chivalry. These valiant souls were accustomed in the field to share the same tent bed and table, were also admitted to share Winter quarters in each other's castles with the same cordiality. And then there might be seen, sleeping in one and the same bed, the master of the castle, his spouse and children, the knights his guests, and along with the rest sometimes the favorite dog. Admiral Bonnavet used to sleep with Francis I., who called him his knight companion.

A CLERGYMAN says: "I once married a handsome young couple, and as I took the bride by the hand, at the close of the ceremony, and gave her my warmest congratulations, she tossed her pretty head, and, pointing to the bridegroom, replied: 'I think he is the one to be congratulated.'"

A USELESS RULE.—Hill's Journal of Health says, "that when a woman gets to be over thirty years of age she should not marry; but who ever heard of a single woman over thirty?"

Touching Incident.

The Glasgow Christian News gives the following "no fiction, but the plain truth."

A young man and his wife were preparing to attend a Christmas party, at the house of a friend some miles distant. "Henry, my dear husband, don't drink too much at the party to-day—you will promise me, won't you," said she putting her hand upon his brow, and raising her eyes to his face, with a pleading smile. "Millie, I will not; you may trust me." And he wrapt his infant boy in a soft blanket and they descended. The horses were soon prancing over the turf, and a pleasant conversation beguiled the way. "Now, don't forget your promise," whispered the young wife, as she passed up the steps. Poor thing! She was the wife of a man who loved to look on the wine when red. The party passed off pleasantly, the time for departing grew near and the wife descended from the upper chamber to join her husband.

A pang shot through her trusting heart as she met him—for he was intoxicated—he had broken his promise. Silently they rode homeward, save when the drunken man broke into snatches of song or meaningless laughter. But the wife rode on, her babe pressed closely to her grieving heart. "Give me the baby, Millie, I cannot trust you with him," said he, as they approached a dark and swollen stream. After some hesitation, she resigned her darling babe, closely wrapt in a large blanket, to his arms. Over the dark waters the noble steed safely bore them, and when they reached the bank the mother asked for the child. With much care and tenderness he placed the bundle in her arms, but when she clasped it to her bosom no babe was there! It had slipped from the blanket, and the drunken father knew it not. A wild shriek from the mother aroused him, and he turned around just in time to see the little rosy face rise one moment above the dark waters, then sink forever. What a spectacle! The idol of his heart gone, gone forever, and that by his own intemperance. The anguish of the mother, the remorse of the father, are better imagined than described.

Hints on Rearing Children.

1. Children should not go to school until six years old.
2. Should not learn at home during that time more than the alphabet, religious teachings excepted.
3. Should be fed with plain and substantial food, at regular intervals of not less than four hours.
4. Should not be allowed to eat anything within two hours of bed time.
5. Should have nothing for supper but a single cup of warm drink, such as very weak tea of some kind, or cambric tea, or warm milk and water, with one slice of cold bread and butter—nothing else.
6. Should sleep in separate beds, on hair mattresses, without caps, feet first well warmed by the fire, or rubbed with the hands until perfectly dry; extra covering on the lower limbs, but little on the body.
7. Should be compelled to be out of doors for the greater part of daylight, from after breakfast until half an hour before sundown unless in damp, raw weather, when they should not be allowed to go outside the door.
8. Never limit a healthy child as to sleeping or eating, except at supper; but compel regularity as to both. It is of great importance.
9. Never compel a child to sit still, nor interfere with its enjoyment, as long as it is not actually injurious to persons or property, or against good morals.

GIRLS.—Holmes, in one of his poems, says, in a parenthetical way—

"—my grandpa
Loved girls when he was young"

No doubt of it, for Holmes is a sensible man, and must have had a grandfather. All sensible men love girls when they are young, and when they are old, too. We apply the "old" to the men—not to the girls, mind you. Girlhood is an institution—a peculiar institution—which as lovers of the union, we feel bound to cherish; and as the girls large and small, we hold that no gentleman's family is complete without them. Of little girls, an American poet says:

"With rosy cheeks and dancing curls,
And eyes of tender light,
O, very beautiful are little girls,
And goodly to the sight."

And as to large girls—big, bouncing girls—what a pity it is they must soon be women, stately, matronly, queenly women, who are not angels, because they are not girls! who, by-the-by, are not angels either, but vastly more charming than any we remember to have seen in the pictures or elsewhere! Indeed they are.

SEASONABLE SUGGESTIONS.—An exchange paper gives the following hints, which are worth remembering at this season: "A poor minister received last year a service of plate, when he was suffering from an overcoat. His wife took quietly her oil painting, thinking all the while of her black silk, which had been turned again and again. A young man will receive to-night a beautiful gift-book, who is suffering for a half a dozen shirts. A young woman will receive a set of jewelry who will have consumption fixed on her lungs before next May, owing to the need of proper under-clothing. In paucity time we ought to remember what which is too proud to tell even friends in need."

Haul Down the Green Boughs.

To decorate private residences and stores with green boughs at the approach of Christmas gives an air of festivity, of cheerfulness and rejoicing appropriate to the season. It is a good old custom that brings up many hallowed remembrances, and marks more impressively the great event which Christmas calls forth. But when they are permitted to remain attached to chandeliers, for instance, until they become dried to a crisp, they are likely to cause trouble, unless removed. Within a few days cases have occurred in which the neglect to haul down the boughs have been the cause of at least some excitement, and in all of which fires, which from the nature of the circumstances accompanying them, would no doubt have proved serious, were arrested by the most extreme caution. One occurred in a private residence on Pine street. The gentleman who occupies the house, in attempting to light the gas in one of the rooms accidentally set fire to the boughs, which being thoroughly dry blazed up at once. By his coolness and presence of mind, he succeeded in hauling down the branches and placing them upon a table which stood directly under the chandelier he managed to extinguish them without much damage having been done. Another case of a similar character occurred in one of the stalls in the California market. But the danger lies, not in the amount of damage likely to be produced by the burning of the boughs alone, should the heat soften the solder by which the connection of the pipes are secured and the gas escape, the consequence would be serious. Christmas is gone, and left behind many pleasant remembrances; haul down the boughs and let nothing connected with it produce sorrow at this late day.—*Ex.*

PRESS ON.—This is a brief speech, but full of inspiration and opening the way to all victory. The mystery of Napoleon's career was his—under all difficulties and discouragements, "Press on!" It solves the problem of all heroes; it is the rule, by which to weigh rightly, all wonderful successes, and triumphal marches to fortune and genius.

"Press on!" Never despair; never be discouraged, however stormy the heavens, however dark the way; however great the difficulties, and repeated failures,—"Press on!" If fortune has played false with thee to-day, do thou play true for thyself to-morrow. If thy riches have taken wings, and left thee, do not weep thy life away; but be up and doing, and retrieve the loss, by new energies, new action. If an unfortunate bargain has deranged thy business, do not fold thy arms, and give up all as lost; but stir thyself, and work more vigorously.

A COMMON ERROR.—From some cause the assertion has been frequently made, and is received by the thoughtless, that the 4th of March never comes on Sunday, and on that account selected as the day for inaugurating our Chief Magistrate. Next inauguration day will fall on Sunday, and as the terms of the President and Vice-President expire at twelve o'clock Saturday night, the Speaker of the House of Representatives will be President of the United States till the President elect is sworn in on Monday. This will be the third occurrence of this kind in the history of our country—Monroe commencing his second term Monday, March 5, 1821, and Zachary Taylor his term on Monday, March 5, 1849.

A SCHOOL GIRL'S IDEA.—Grace Hunter writes to the St. Nicholas for August: I would like to tell the girls something. It is about a good use for the frames of old umbrellas, sunshades or parasols. You just open them, strip off the silk, sharpen the handle to a point; and thrusting them open, in the ground, let them serve as trellises for vines. Last Summer we girls had a lovely sweet-pea vine growing over mother's old parasol frame, and a balloon line training over father's old castaway umbrella. They were lovely.

HAVE A PURPOSE.—Seven years at Sunday school without missing a single Sunday! That is the record of a boy in Rochester, N. Y. It shows promptness, punctuality, and last and best of all—purpose. Indeed, it was the purpose that made him prompt and punctual. It is only a purpose which will and can master circumstances and make them all bear on the successful pursuit of one great object. A boy with a purpose has made a noble beginning in life, for think how much else it tells about him.

THE ways of women are past finding out. It is said that the ladies of Jacksonville, Tenn., have a fashion of tying up their fingers when young gentlemen are expected to call, and when they very naturally ask the cause they blushing reply, "I burned them broiling the steak this morning." The result, as chronicled by the local paper, is that several young gentlemen have burned their fingers by believing the story.

TO MAKE HAIR CURL.—The method employed by professional workers in hair is as follows: Wet the hair to be curled, wrap it smoothly around a cylindrical stick or tube of proper size, tie it in place, then put it in water and boil it two or three hours, remove it from the boiler, wrap it carefully in a newspaper and bake it in a moderate oven for an hour. Thus treated it will stay in curl permanently.

Young Folks' Column.

A Boy's Mistakes.

BY ONE WHO KNOWS.

When I was a little boy, I felt sure men must be happy because they could do as they pleased. Many an hour have I amused myself by thinking what good things I could have when I grew up. I would buy a watch and a gun, and keep a horse, and eat as much candy as I pleased; these seemed to me some of the greatest things to be hoped for. Now I am a man and can ride, or hunt, or look at my watch, or eat candy now whenever I choose, but the pleasure I expected is not in them. I have no longer a boy's active limbs, quick eyes, and keen tastes, to enjoy them with. That was a mistake of the imagination; I wish all my boyish errors might have been as harmless.

As I could not grow to be a man at once, I tried to do what older persons did. I thought it looked manly to smoke a cigar; and I well remember how I strutted, and carried my head on one side, and put on airs as I watched the smoke curling above my head. I am often reminded of it by seeing boys making the same mistake now a days. But oh! how sick it made me; I paid dearly enough for my pleasure, and for a long time concluded to try some other way to be manly.

Perhaps one of my greatest mistakes was in thinking how much I knew. I could not believe that father and mother knew best; so I often took my own against their advice, and in many ways have had to suffer for it. Then I made a sad mistake at school, when I regarded learning as a task to be performed for the pleasure of the teacher, instead of seeing that it was my opportunity to lay up stores which would be of the greatest service through life. I was forced by faithful friends to secure some thing of this treasure, but how rich I might have been in mind, could I have seen things as they now appear. Then I let some habits become fastened upon me which it took years to shake off, and I have been nearly half my life trying to mend the mistakes of the other half.

I should not speak of these things, were it not that I see boys every day making the same mistakes, and preparing for the same regrets. Perhaps some of them among the readers of the PRESS will be helped to think by these thoughts of an old man, and thus avoid some of my early mistakes.

A School Boy's Experience.

When a boy goes to school, he is satisfied for a few months, and likes it pretty well; but after he has been there—say six months—to use his own expression, he is sick of it, and wants to go to work. So he leaves school, goes to work and likes that very well at first, the same as he did the school, but a re-action soon ensues, and he gets tired of work, also; and his employer, upon seeing him listless and indifferent, will not keep him, and he is discharged and becomes a street loafer, and too frequently a disgrace to his parents, who of course will not countenance his riotings. All this generally ends by the boy leaving his home and parents, and entering upon the battle of life alone. Then he finds he cannot get along without education and bitterly regrets that he did not stay at school when a boy. This is the experience of more than one boy. So, my young friends, let me advise you to take warning, and when you are at school stay at it, and you may in time become men, and prosperous, and honored and respected by every one who knows you. My parting advice is—never leave school until you have received a thorough education.

ADVISER.

[We found the above upon our table, without the name of the writer; but as we infer that it has been handed in by some of our younger readers, who perhaps is relating his personal experience, and as we know it is the experience of many, we lay aside our usual rule and give it a place in our columns. The advice is good, and should be followed by all to whom it will apply.—*EDS. PRESS.*]

A BOY WHO WILL SUCCEED IN THE WORLD.—A boy only fifteen years old, in Blackhawk county, Iowa, whose father died three years ago, leaving his widow and son an eighty-acre farm burdened with a thousand dollar mortgage, has taken the whole and sole charge of the farm, hiring help only in seed time, harvest and threshing, paid off the mortgage, purchased a harvester, a sulky plough, a wagon and a set of harness, besides a sewing machine for his mother, and is now out of debt. He is a member of the Cedar Valley Agricultural Society, and attends school three months each winter.

SMART BOY.—A bright little chap not long ago entered a confectionary store and asked, "How much is your stick candy?" "Six sticks for five cents," "Six sticks for five cents, eh? New lem' me see, six sticks for five cents, five for four cents, four for three cents, three for two cents, two for one cent, one for nothing. I'll take on," and he started out of the store leaving the candy man in a state of bewilderment, who shortly after, sent his clerk out after the bright little chap and gave him a good sized package of gum drops.

GOOD HEALTH.

The Philosophy and Relative Warmth of Clothing.

A London medical journal says that Dr. Von Pettenkofer, in a careful study of this subject recently published, has pointed out that the permeability of stuffs to air is a condition of their warmth. Of equal surfaces of the following materials, he found that they were permeated by the following relative quantities of air, the most porous flannel, such as is used ordinarily for clothing, being taken at 100; Flannel, 100; linen, of medium fineness, 58; silk, 40; buckskin, 58; tanned leather, 51. Hence, if the warmth of clothing depend upon the degree in which it keeps out the air from our bodies, then glove kid must be 100 times warmer than flannel, which every one knows is not the fact. The whole question, then, is resolved into that of ventilation. If several layers of the same material be placed together, and the air be allowed to penetrate through them, the ventilation through the second layer is not much less than through the first, since the meshes of the two form a system of continuous tubes of uniform diameter, and the rapidity of the movement of the air through these, is affected merely by the resulting friction. Through our clothing, then, there passes a stream of air, the amount of which, as in ventilation, depends upon the size of the meshes, upon the difference of temperature between the external and internal atmosphere and upon the velocity of the surrounding atmosphere.

Our clothing, then, is required, not to prevent the admission of the air, but to regulate the same so that our nervous system shall be sensible to no movement in the air. Further, our clothes at the same time, regulate the temperature of the contained air as it pass through them, so that the temperature of the air between the clothing and the surface of our body averages 84 to 86 degrees Fahrenheit. The hygroscopic property of different material used for clothing essentially modifies their functions. This property varies with the different materials; wool, for instance, takes up more water than linen, while the latter takes up and gives off its watery contents more rapidly than the former. The more the air is displaced by water from the clothes, the less will be their power of retaining the heat; in other words, they conduct the heat more readily and hence we are quickly chilled by wet garments.

About One's Self.

The object of brushing the teeth is to remove the destructive particles of food which by their decomposition generate decay. To neutralize the acid resulting from this chemical change is the object of dentifrice. A stiff brush should be used after every meal, and a thread of silk floss or India rubber passed through between the teeth to remove particles of food. Rinsing the mouth in lime water neutralizes the acid.

Living and sleeping in a room in which the sun never enters is a slow form of suicide. A sun bath is the most refreshing and life-giving bath that can possibly be taken.

Always keep the feet warm, and thus avoid colds. To this end, never sit in damp shoes or wear foot coverings fitting and pressing closely. The best time to eat fruit is half an hour before breakfast.

A full bath should not be taken less than three hours after a meal. Never drink cold water before bathing. Do not take a cold bath when tired.

Keep a box of powdered starch on the washstand; and after washing, rub a pinch over the hands. It will prevent chapping.

If feeling cold before going to bed, exercise; do not rest over a fire.

THE VIRTUES OF BUTTER MILK.—Mr. Robing, in a paper presented to the French academy, thus extols the virtue of buttermilk: Life exists only in combustion, but the combustion which occurs in our bodies, like that which takes place in our chimneys, leaves a detritus which is fatal to life. To remove this he would administer lactic acid with ordinary food. This acid is known to possess the power of removing or destroying the incrustations which form on the arteries, cartilages and valves of the heart. As buttermilk abounds in this acid, and is, moreover, an agreeable kind of food, its habitual use, it is urged, will free the system from these causes, which inevitably cause death between the seventy-fifth and hundredth year.

HOUSE WINDOWS.—The more light admitted to apartments the better for those who occupy them. Light is as necessary to sound health as it is to vegetable life. Exclude it from plants and the consequences are disastrous. They cannot be perfected without its vivifying influence. It is a fearful mistake to curtain and blind windows so closely for fear of injuring the furniture by exposure to the sun's rays; such rooms positively gather elements in darkness which engender disease. Let in the light often and fresh air too, or suffer the penalty of aches and pains and long doctor's bills, which might have been avoided.

TO PREVENT BALDNESS, says a correspondent, throw away all oils and pomades, and wash the parting of the hair with cold water, night and morning, dry thoroughly, and then use a good stiff brush, and keep brushing until redness or a warm glow is produced.

DOMESTIC ECONOMY.

Flavorings.

Good flavorings are a most desirable addition over the cooking of olden times, when spices were the chief resort. These, however, are somewhat expensive, and thus many are deterred from using them in the common cooking of cakes, custards, puddings, etc.

But much can be done to help the matter by making some, at least, of our own "extracts." Vanilla beans are not expensive, and these boiled in milk flavor dishes nicely, and, we think, that the beans put into spirits would give a good extract at little cost.

Lemon, which is a more general favorite, can be easily made, and, when lemons are cheap, at a very small expense. Take the peel off, say of three or four lemons, and bruise or chop fine, and put it into a pint bottle, filling the bottle with good spirits, and, in a few days you will have a strong "extract," and at a cost of one quarter of what the small bottles of the same amount, would cost. To do this economically, the right season of the year, when lemons are low-priced must be chosen, and then enough can be made to last the year.

The oil of bitter almonds is also inexpensive, but great care must be taken in using this, as it is a violent poison, and needs but a mere trifle to flavor a pudding, custard, or other sauce, for which it is desirable. It is well to reduce a little of the oil, as for an essence, before using.

To those fond of flavorings, these hints may be acceptable and lead others to experiments of their own.

Beecher on Apples.

Rev. Henry Ward Beecher expatiates with true ecclesiastical unction on the manifold uses of the apple in the domain of culinary art. It might take its place on the table as regularly as the potato or the onion, for though "the onion is far more odorous, the apple is far more blessed." It is an admirable sauce for meat, which always craves a piquant acid for relish. When meat is wanting, "a scrap of pork in the frying pan, with sliced apples, will serve the economic table almost as well as if it had been carved from a beef or cut from a sheep." Mr. Beecher blesses the memory of the unknown inventor of the apple pie. He would fain make a pilgrimage to his grave and rear over it an everlasting monument. But the juice of the apple, he accepts only with discreet reservations. Though banished from its former universal position upon the farmer's table, cider is creeping back again, but it comes in the name of a neighbor, and is called champagne. Whether in one form or another, it is still savory of the orchard; it still brings warmth to chilly veins, and adds to the cheer of many a homely domestic festival. "I cannot," says Mr. Beecher, "as a temperance man, exhort you to make it, but I must say, that if you make it, you had better make it good."

PLAIN DIET.—This is what children ought on every account to be accustomed to from the first; it is vastly more for their present health and comfort than little nice things with which fond parents are so often apt to vitiate their appetites and it will save them a great deal of mortification in after life. If you make it a point to give them the best of everything; to pamper them with rich cakes, sweetmeats and sugar plums; if you allow them to say with a scowl, "I don't like this or that," "I can't eat that," and then go away and make them a little toast, or kill a chicken for their dainty palates depend upon it you are doing a great injury, not only on the score of denying a full muscle and rosy cheek, but of forming one of the most inconvenient habits that they can carry along with them in after life. When they come to leave you they will not half the time find anything they can eat—and thus you will prepare them to go chafing and grumbling through life, the veriest slaves almost in the world. Mothers, listen and be warned in time, for the time will come when you will repent; seeing your sons and daughters make their homes miserable by complaint, and raising their children up in the same way.—*Rural New Yorker.*

ABOUT BRAN.—Wheat bran is very much richer in phosphoric acid than corn bran. Wheat contains in the whole grain 8.2 per cent.; but nearly the whole of the phosphoric acid of the grain exists in the husk or bran. The wheat bran contains nearly twenty-nine per cent. of this valuable substance. What percentage is in the bran of corn we have no means of ascertaining, but it is certainly less rich in phosphoric acid than wheat bran.

Rye bran is richer still than wheat bran, containing over thirty-four per cent. of phosphoric acid, which is a larger proportion than is contained in any other article of food for poultry than the latter. If wheat bran is preserved free from damp or mould it will not deteriorate in quality or keeping for any moderate length of time, a year for instance.—*New York Tribune.*

STRENGTHENING JELLY.—Boil in two quarts of water one ounce of rice, one ounce of sago, and one ounce of barley, until reduced one-half. Strain into a mold; take a teaspoonful morning, noon and night. It can be sweetened and flavored to taste.



T. DEWEY, W. B. EWER, G. H. STRONG, J. L. DOONE

PRINCIPAL EDITOR.....W. B. EWER, A. M.

OFFICE, No. 224 Sansome street, Southeast corner of California street, where friends and patrons are invited to our SCIENTIFIC PRESS, Patent Agency, Engraving and Printing establishment.

SUBSCRIPTIONS payable in advance.—For one year, \$4; six months, \$2.25; three months, \$1.25. Remittances by registered letters or P. O. orders at our risk.

ADVERTISING RATES.—1 week. 1 month. 3 months. 1 year
Per line.....25 80 \$2.00 \$5.00
One-half inch.....\$1.00 \$3.00 \$7.50 24.00
One inch.....2.00 5.00 14.00 40.00

Large advertisements at favorable rates. Special or reading notices, legal advertisements, notices appearing in extraordinary type or in particular parts of the paper, inserted at special rates.

No Quack Advertisements inserted in these columns.

SAN FRANCISCO:

Saturday, February 6, 1875.

TABLE OF CONTENTS.

GENERAL EDITORIALS.—Plants for Hedging; Clearing Land by Blasting; California Tobacco; Answers to Correspondents, 81. Wheat Still Dominant; Extensive Ditch Enterprise; Economic Botany, 88-89. The Ralu Fall, 89. Patents and Inventions, 92.

ILLUSTRATIONS.—Hedge Plants, 81. Economic Botany, 89.

CORRESPONDENCE.—Crops, Fruit Drying and Dodder in Sacramento County; From Montana Territory; Rain Fall at Los Banos; From Covelo, Mendocino County; Railroads in Southern California; Is Grape Growing Remunerative? 82.

HORTICULTURE.—Sierra Valley and Some of its New Flowers, 83.

USEFUL INFORMATION.—Number of American Newspapers; The Antiquity of Iron; Preventing the Decay of Shingles—A Cheap Way; Weight by Measure; Something New in the Preservation of Fruit; How to Prevent Damp from Entering into Stone; First Use of Anthracite; Heat in the Human Body; Oregon Pine, 83.

PATRONS OF HUSBANDRY.—Progress of the Patrons in California; New Granges; Meetings; Etc., 84.

HOME CIRCLE.—The Slinger (Poetry); Farm House Chat; A Fair Hit; The Gift of Thought; Patience; Sleep in the Olden Time; A Useless Rule; Tossing Incident; Hints on Rearing Children; Seasonable Suggestions, 86. Haul Down the Green Boughs; Press On; A Common Error; A School Girl's Idea; Have a Purpose; To Make Hair Curl, 87.

YOUNG FOLKS' COLUMN.—A Boy's Mistake; A School Boy's Experience; A Boy who will Succeed in the World; Smart Boy, 87.

GOOD HEALTH.—The Philosophy and Relative Warmth of Clothing; About One's Self; The Virtues of Buttermilk; House Windows; To Prevent Baldness, 87.

DOMESTIC ECONOMY.—Flavorings; Beecher on Apples; Plain Diet; About Bran; Strengthening Jelly, 87.

POULTRY YARD.—Moulting; Poultry Show at Hartford; Sale of Fine Fowls, 92.

SHEEP AND WOOL.—Spanish Merino Sheep—As They are and Have Been; Curing Scab in Sheep; Luster Sheep, 90.

THE DAIRY.—Small and Large Milksters; Attend to Cows' Udders in Early Winter, 90.

AGRICULTURAL NOTES from various counties in California, 92.

MISCELLANEOUS.—Don't Sell the Pelts; The Abuse of Appetite; Science and Faith; Buried Knowledge; Fall in the Value of Amethysts, 82. The First Planing Machine; Sewage Utilization; Important Discovery in Lubrication; Large Hammer and Cranes; The Breadstuff Prospects of California for 1875; Engle's Railroad Iron, 83. New and Wide Use for Infusorial Earth; Throwing Water from Pipes, 90.

What we Offer this Week.

The second lecture of Prof. Bessey, on "Economic Botany," which we give in this number, will be found of great practical value to farmers, as well as extremely interesting to the general reader. These lectures are attracting a good deal of attention. Prof. Bessey is credited with a thorough knowledge of the subjects which he has taken in hand, and possessing the rare faculty of presenting scientific subjects in an attractive manner. We have had these lectures reported and illustrated expressly for the RURAL PRESS. The article on the "Flowers of the Sierra Valley," by J. G. Lemmon, Esq., will also be found valuable and interesting. We present an array of varied correspondence, while our editorial and other departments have been prepared with our usual care. Are not our subscribers receiving the worth of their money? We send no sample copies but would like to have our subscribers show this number to their friends.

ON FILE.—"Pruning, its Principles and Practice," W. H. W.; More about "Old Celina," and "Notes from Los Nietos," G. K. M.; "Letter from L. Connors, W. T.," "Letter from W. H. H.," C. C. W.; "Take Good Care of Your Servants," and "Dress Reform," N. A. P.; "From Wellington Grange," R. V.; "The Grange and Common Schools," Granger; "Farm House Chat," Mary Mountain; "Letter to Boys No. 7."

PUBLIC LEOGER ALMANAC.—We are indebted to George W. Childs, Esq., proprietor of the *Public Ledger*, for a copy of the *Public Ledger Almanac* for 1875. It is tasteful in appearance and contains much valuable information.

Wheat Still Dominant.

Those who have been laboring strenuously for some months past to effect a reduction of the wheat crop, and who apparently expected to have their efforts tell even on the crop of 1875, must be somewhat astonished, if not disgusted, at the present showing which gives assurance that one-quarter more acreage is sown to wheat in California this winter than was sown a year ago.

It will possibly be asked in some quarters whether this unchanged condition of things is due to the stupidity or the stubbornness of our farmers. It is owing to neither of these qualities; but is partly a matter of necessity, and partly the result of a careful consideration of the chances involved in a radical change. As to the necessities of the case it should be borne in mind that in some of the principal wheat districts of the State this is the only crop from which a fair yield can be expected. It is wheat or nothing, at present, at least. And it is in these sections where the present increase prevails; while from those portions where diversified farming is practicable, as rapid progress is being made in that direction as prudence would dictate.

Now, in regard to this matter of wheat being a sort of scape goat crop, it has always seemed to us that there is a radical error at the bottom of the supposition that wheat should only be grown as the first product that the pioneer can clutch in a new country, and the last resort in places that are too poor to grow anything else. This is decidedly an American notion. It is true that wheat growing has rendered important service to American agriculture in both the emergencies mentioned above; but does it follow necessarily that it should be confined to one or the other? We know that no such necessity exists. In some of the wealthiest agricultural districts in America—Western New York, for instance—wheat growing is being resumed where it was discarded twenty years ago, for the supposed reason that the crop was impoverishing the soil, and thereby the owners of the soil, and that on valuable land like that, wheat could not be grown successfully in competition with the cheap lands of the northwest; at that time the granary of America. This change is now being brought about, not with a view to carry out any visionary scheme of mixed farming, but is the result of a conviction that the land that once produced such a high grade of wheat will do it again, especially after so long a rest from wheat growing. And further, they see dairying, hop growing, and other departments of agriculture, conducted as successfully where land is worth two hundred dollars per acre, as where it can be bought for twenty-five dollars per acre, the natural advantages being about equal.

If both the commercial and agricultural points involved in California wheat growing are properly worked out, may we not reasonably hope to see this crop grown by generation after generation in those localities where heaven has bountifully bestowed all the natural requisites, without having the land or the husbandman becoming impoverished?

But the increase of wheat area in the wheat districts, does not prove that other departments of farming are not increasing at a still greater ratio; for, as we have repeatedly declared, diversified farming is increasing as rapidly as could reasonably be desired. The all absorbing topic of wheat has diverted the attention of inquirers from other products and the increase in other crops has not been duly estimated. If the increase of investment in cotton growing, dairying, in choice stock, hop growing, fruit culture and drying, etc., could be ascertained, we would probably find that wheat is not as dominant in 1875 as in 1874. Is it advisable, under the present circumstances to inaugurate a radical change? Would we not be taking as many "chances" in such a change as we incur in wheat growing with the present commercial and agricultural surroundings? Not that we should, by any means, slacken our efforts to increase diversified farming, but let every movement in this direction be made considerably.

Extensive Ditch Enterprise.

D. S. McLellan a few weeks since bought the property of the Eureka Ditch and Land company in El Dorado county, and intend extending the ditches and making improvements of considerable magnitude. This old company has been operating since 1852, and used to sell water to the miners at one dollar per inch. There are altogether about 270 miles of ditches and flumes, large and small. The main ditch is capable of carrying 2,000 inches of water through the culverts, but on account of not having reservoirs in the mountains, they only have that much during four or five months of the year, according to the season. During the dry part of the season they only run about 400 or 500 inches.

Mr. McLellan, who has bought the property proposes to build several large reservoirs in the mountains to catch water and hold it until needed. The snow melts from May to July and

these reservoirs will keep the water so as to keep a supply until along in October, when a fresh supply comes.

The ditch as constructed at present, runs from the North Fork of the Cosumnes river in El Dorado county, about 70 miles above El Dorado, taking water from Camp creek and Park creek, through Pleasant valley, New Town, El Dorado; Shingle Springs, Latrobe, on to the American reservoir, and so on into Sacramento county, near Folsom. Mr. McLellan proposes to continue it on to Sacramento city, 18 miles from the end of the ditch. El Dorado county is nearly all taken up with small farms. The "red lands" there are admirable for fruits, vegetables and grapes. The ditch will irrigate all that part of El Dorado county between Weber creek and the Cosumnes, and all that part of Sacramento county between the American and Cosumnes rivers. This will be a width of from 12 to 16 miles in the lower part of El Dorado and Sacramento, and from six to eight miles in the upper part of El Dorado. The new reservoir contemplated by Mr. McLellan will be from 20 to 40 miles above the head of the present ditch in order to get the snow water and keep it for summer use. Most of the land about these reservoirs is poor. The ditch will furnish water to all the mining ground between the middle fork of the Cosumnes to the South Fork of the American. There are three gravel ranges sparsely covered with timber. Very little of the ground is being worked by miners, but considerable will be taken up as mining ground as soon as the ditch furnishes the requisite water. Some drift, placer and quartz mining is going on along the line of the ditch, but there will be considerable new ground opened up. Grizzly Flat is the highest camp on Steeley's Fork of the Cosumnes and the Baltic region on the North Fork of the Cosumnes. The ditch will go 20 miles above to get water. In some places on the line the mines are old and are being now worked by Chiuamen and Italians.

To reconstruct the old and complete the new works will cost from \$300,000 to \$500,000, including the building of the reservoirs and all. The water can be used several times above for mining, and can be caught up again and used for irrigation. The intention is to construct a double line of ditches. The water is caught on top of the Sierra Nevada mountains. Starting from Twin lakes, near Carson's peak, then running to Leak Spring reservoir, then on to the North Fork of the Cosumnes to Capys' Crossing reservoir. It will then be taken in a V flume to Latrobe, 28 miles. There, there will be a reservoir, and the water can be carried in to Sacramento clean and pure, or used in that county for irrigating. By this V flume wood and lumber can be floated to the railroad at Latrobe. From there the water will be carried by pipe and flume to Sacramento.

The other line of ditch starts from nearly the same place, Carson's Pass in the Sierra Nevada, about 15 miles south of Lake Tahoe and 2,000 feet above Lake Tahoe. It will run to the Alder springs reservoir, then down a tributary of Camp creek, and picking up the waters of Park creek, Baltic creek and other small creeks, run through Pleasant Valley, Newtown, Diamond Springs, El Dorado, Logtown, Missouri Flat, Shingle Springs, and so on down to the American reservoir, where it is taken out and distributed for mining and irrigating purposes. The American reservoir is a large one, being about one mile across. Of course water can be taken out of the ditch on its way to this distributing reservoir.

A petition is being circulated in El Dorado and Sacramento counties among the residents between Weber creeks on the north, Cosumnes river on the south and the American and Sacramento rivers on the west in relation to this ditch. They stand in need of a supply of water for agricultural and mining purposes, without which the lands are poor. The ditch will create a demand for the lands. The present supply of water is said to be insufficient for the necessities of the region, and even it is in danger of being cut off because the works which now supply it are old and decayed and the water can only be secured by a system of reservoirs in the mountains, ditches and flumes for more general distribution.

The petition referred to is to allow D. S. McLellan and associates, purchasers of the ditches and water privileges, the right and privilege of cutting timber along the line of the canal and ditch for the construction of the work. The privilege wanted is the right to cut timber for half a mile on each side of the ditch, only on unsurveyed Government land. They are debarred from doing this now by the United States law of 1833. They want to cut sufficient timber to repair the present flumes, and construct the new reservoirs and flumes. If allowed they can cut the timber on unsurveyed lands at the upper end of the ditch and float it down to where needed for their own use. As we understand it the parties do not desire the right to cut any more timber than is actually needed for the purposes mentioned, and only ask for that much. The law, at present, prohibits this cutting of timber on Government lands, surveyed or unsurveyed, and Mr. McLellan has gone to Washington to try and obtain the concession in this in stance.

AN OLD FRIEND IN A NEW DRESS.—The *Canada Farmer*, one of our most valued exchanges, commences its twelfth volume in a new and tasteful dress; a finely illustrated colored cover, cut edges, and presenting a general appearance which will compare favorably with any of our agricultural monthlies.

Economic Botany.

Second Lecture Delivered before the University of Cal. College of Agriculture on Tuesday, Jan. 19, by Prof. C. E. Bessey, M. S., of the Iowa College, Ames, Iowa.

[Reported expressly for the RURAL PRESS.]

Fungi Continued.

At the conclusion of the preceding lecture I was telling you about these three forms, *Acididium*, *Uredo* and *Puccinia*. You will recollect that the *Acididium* is the onp-like growth, which after a while develops into something which is quite different. De Bary thinks that the spores of *Acididium Berberidis* will not grow upon the Barberry. They grow upon wheat and produce first, *Uredo* and then *Puccinia*. *Uredo* appears earliest in the season and has rounded spores which are orange colored. Later in the season there appear upon the leaves of the wheat elongated black patches; which, upon microscopic examination, are shown to be composed of elongated spores. In the first form, it has received the name *Uredo rubigo-vera*; while in the second form it is called *Puccinia graminis*. This last form is the true rust. This theory is pretty generally accepted. However, the two forms have been watched carefully and found to run one into the other.

You will find that always in describing the *Puccinia*, the kind of fruits are described; that is, the elongated red spores. These, you understand, push through the epidermis, the leaf. Now, these two, *Uredo* and *Puccinia*, are certainly the same, and the probability is that *Acididium* is but one of the forms of this polymorphic species.

Now, Botanists have not determined whether the spores of *Puccinia* will germinate upon the grass or not; or, whether it is necessary that these pass back, and germinate again upon the Barberry. The latter is probably the case. The present state of our knowledge then, amounts to this, that *Acididium*, which grows upon the Barberry is but one form of the same plant which grows upon wheat; first as *Uredo* and then as *Puccinia*. *Ustilago segetum*, (or *Ustilago carbo* of some authors), is the next one and belongs to this same group, No. IV, and is the

Black Smut, Blasi, or Blight.

Here is shown (Fig. 2,) a head of wheat, natural size, blasted, and also some of the spores highly magnified. The spores are, as you see, not entirely round, but somewhat flattened.

The next, *Ustilago Maydis*, is the one that produces the black blast, or smut, on Indian corn. (See fig. 3). Its spores, under the microscope, are found to be rounded, larger, and are full of little prickles all over the surface. We do not know the full history of these smuts and it is likely that they are polymorphic also. Please to observe the differences in their spores, as shown in the figures. Those of *Ustilago segetum* are rounded and somewhat flattened, while those of the last species (*Ustilago Maydis*), are rounded and covered with prickles. Wheat is sometimes troubled with what is called "bunt, or atinking smut." (*Tilletia caries*). Wheat, affected with this fungus, changes its appearance somewhat. The kernels are always large and a little green in color.

You take this in your finger, crush it and the odor is exceedingly fetid. Under the microscope myriads of little spores will be visible. You will find that these spores are borne on threads, and are very much reticulated. It takes a power of three to four hundred diameters to show these well.

Last year I made measurement of these spores, and also measured an average kernel of wheat. I find that

About Thirty Quadrillions

Of these spores are in each wheat kernel, and now as each spore is capable of filling a whole wheat plant, you see that means of reproduction are exceedingly good in this case. Every wheat plant seemed to be affected throughout. Wheat grows in what we call "stools," first one stem and soon little branches here and there so that we will have four, five or six stems from one kernel, each stem bearing a head of wheat. In most cases if you find one head affected you will find all the heads affected, which indicates this: that these fungus growths affect all parts of the plant; that if you wish to

Purify the Seed

You must apply the substances, or whatever you do apply, to the seed itself. That is, in treating certain wheat you must apply the remedy there to the wheat sown. No doubt this fungus disease begins when the plant is small. The probability is that one spore is sufficient to infect a whole stool of wheat; and as each stool of wheat has at least three heads, you see there is immense reproductive power. In the figure here shown (figure 4); first, a head of wheat, as it appears when affected; second, the

kernel of affected wheat, one of which is cut in two, showing the blackened and dusty interior; third, some of the spores highly magnified. In this fungus plant botanists have found the fertilization. This is interesting from the fact that for most fungus plants no fertilization has yet been discovered.

Without attempting a detailed explanation of the method of fertilization in this species, I will simply say that it is what is known as fertilization by conjugation; and is almost identical with what takes place in many of the seaweeds. The only point in the fertilization which we need notice is, that during the process, successive crops of very minute spores are produced. These minute spores are undoubtedly the bodies which enter into the stomates of the plants, and so propagate the species. These are exceedingly small and require a microscope of five or six hundred diameters to find them. From it again grows another smaller body that also has spores. This shows that Fungals have

Genuine Fertilization,

Such as the higher plants, which results simply from the union of two different cells. I will treat of remedies hereafter.

In the fifth of these orders the *Lycoperdaceae*; we have one plant of some interest, the *Lycoperdon*, the puff ball. Here is a specimen picked up alongside the walk coming from the horse cars. After a while this would become of the nature of a pulverulent substance. Under the microscope you would find a great many different little threads, and on these threads you would find spores. I do not exactly know what species this specimen is. Some species of *Lycoperdon* are used for eating. There is one that is called *Lycoperdon giganteum*—about as large as your head. This taken when perfectly white, sliced up like slicing a loaf of bread, and fried, is said to be exceedingly good. The caution in eating *Lycoperdon*, is never to eat it when it is in color. It is also used occasionally

For Staunching Blood

When a wound has been made. When a little of that is put in a wound, it staunches it very easily. I suppose that even a poisonous one would be good for staunching blood. Taking *Agaricus caceus*, we have *Agaricus*. I show here the common one which is eaten, *Agaricus campestris*. The ring, which is found passing around it, is the remains of a covering that was once over it. Taking a gill, making a cross-section—a difficult thing to do, of course—and placing it under a microscope of high power, you will observe projections, which are simply longer and larger cells growing at right angles to the general surface. These cells bear upon their extremities four minute spores. So if you want to get the spores of these at any time, take a plant and lay it upon a sheet of white paper. The dust will be of the color of the spores—black, pink, white, purple, etc. The spores give the color to the gills. The species *Agaricus* are very general, there being many hundred species of them. You will find, usually, rules given as to the poisonous and unpoisonous kinds. These rules, I find, are of almost no use whatever, if they are based upon color. Very many times people choose pink-colored ones, but this will not do to rely upon implicitly. One kind of *Agaricus*, which is eaten in England and in Italy, is considered so poisonous as to be unfit for food; so you may be quite certain that there is nothing in those rules, and that you cannot place any dependence at all upon color. From a very careful examination, I am very certain that instead of any species being always poisonous or unpoisonous, its quality in this respect will depend very much upon surrounding circumstances; all of which have not yet been fully made out. These facts will show you that there is no dependence to be placed upon a certain species.

One more, the *Polyporus*, having a name indicating its character. In many of these upon the underside, instead of gills there are myriads of little holes. The spores are borne in just the same way as the *Agaricus*, but these spores are reflected back into little cavities instead of being distributed over the surface of the gills. Most of them have a one sided form, instead of being equal. Here in the middle of the stalk is one sided, so that they are more or less ear shaped. Many times you will find them growing upon the side of a log, a sort of foreign growth. They have brown and white underside. Now the *Polyporus* is one of the greatest enemies that the engineer has to do with, or that any one who is putting up timbers has to encounter, because it sends mycelium through the wood, growing almost always on wood. Of course the mycelium is nourished by the wood. It is breaking down the tissues constantly, and brings about what we call rot. The railroad ties are probably thus injured. Instead of the decay being due to ordinary causes, it is due to the presence of *Polyporus* mycelium. Occasionally, if the timber is not in very damp soil, it decays with dry rot. Then you break the timber open and you will find mycelium. I have brought a specimen here to show you about what mycelium looks like. One or two other allied genera having the same characteristics, also produce the rot.

The fungus plants seem to possess a poisonous alkaline principle. Probably this principle is more due to some substance upon which the plants grow, differences in climate, dryness and all that, than to anything especially belonging to them. Now, as to certain rules which will make it safe to use them. First,

Never Eat any Bad Smelling Species. Here smell is a good guide. By the way, that is a good guide, even for the *Campestris*. Second, they must always be perfectly sound. Now, this will require a knowledge of the spe-

Fig. II.

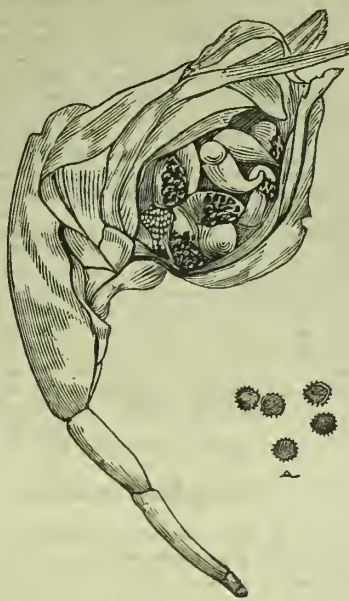


Ustilago Segetum.—Head of Wheat, natural size.

cies. Third, they must be perfectly white. In this they must not have begun their decaying state at all. Fourth, in cooking they must always be sufficiently cooked to make them tender. If they are tough, they are not eatable.

all. I do not know what that would indicate at all. I do not know anything, about the plants, that would make it a good test." Student—"It is nearly always used, especially among the French people." Professor—"It

Fig. III.



Ustilago Maydis.—Blasted Indian Corn.

may have reference to the soundness of the spores. If the development is beginning to rot, possibly the spore would be darkened, simply by the dark-colored spores." Then, as a note after these rules, it must be remembered

Fig. IV.



Tilletia Caries.—Head of Wheat affected with Burnt or Stinking Smut.

Fifth, as they are a sort of concentrated food they must always be eaten with moderation. They take the place, very largely, of the muscular parts of animals, in supplying nu-

Fig. V.



Agaricus Campestris.—Edible Mushroom.

tritive qualities, much more than does the ordinary use of vegetables.

A student asks, "What is that silver spoon test?" Professor—"I do not know of that at

Fly poison is manufactured from another species of *Agaricus*.

This green color, which is frequently found in oak wood (in cutting up an old log of wood you will frequently find a green color), is due to mycelium. This plant departs from the usual law of the fungus plants. This green is a sort of metallic green. In certain parts of Africa, the natives have such high regard for these plants that one is deified and

Worshipped as a God.

Phosphorescence on decaying wood is simply the rapid decay brought about by the presence of a great amount of mycelium. Blood red drops, which frequently have been referred to rains of blood, must be referred entirely to the presence of minute fungus growths.

A few years ago, the bakers in Paris were astonished because the bread was found very frequently to be covered over with

Blood Red Drops.

The people were somewhat superstitious, and it caused a great deal of alarm. Careful investigation showed it to be simply a fungus growth. Cutaneous diseases have sometimes been induced by rubbing the spores of some of this species upon the skin. These, as you observe, are simply disjointed facts.

Dry Rot

May be very easily prevented by using gas tar, corrosive sublimate and sulphate of copper; or any of the processes, of course, which keep out these spores. Painting, when well done, and oiling, would serve equally as well as long as it lasts.

Botanists have a great many times called attention to the fact that the same species of tree will not grow well where it has been cut down. The remark has been frequently made that hard wood requires to be replaced by soft wood and these again by hard wood. The explanation is probably due to this: That the mycelium which destroyed the roots and prevented their growth, will attack the more recent growth. Perhaps it will better explain the fact to state that if any of the orchard trees—for instance an apple tree—is killed in the same way, it is quite difficult to start a young apple tree in the same place; because the same mycelium which destroyed the old, will attack the young apple tree roots, and, of course, destroy the tree. I suppose the species which does the mischief belongs to this group, the *Polyporus*.

The mildews and blights which are found upon the leaves of plants may be treated with sublimated sulphur. We do not know just how this is; for sulphur is largely insoluble; yet simply sprinkling it over very soon destroys this fungus growth, and the plant will be saved; or, if any of the soluble forms of sulphur are used you will find, in almost all cases, good will result. So, of course, sulphate of copper or any of the sulphates are good.

For bunt or smut (*Tilletia caries*) in wheat the seed should be washed in water, brine or hot lime water. A more certain remedy is to steep the seed in a strong solution of sulphate of soda (glauber salts) and then to dust it with quick lime. Sulphate of copper (blue stone) dissolved in water and sprinkled over the seed, is another remedy relied upon by farmers.

In general moulds and mildews—all these small growths here—do not flourish well in dry places. If you have a place that is affected simply dry it, let sunlight into it, and they will very largely disappear, either mould or mildew. Really there is no need of any of these being found in any of our houses.

The Rain Fall.

We give below a report of the rain fall to date from all the localities in the State, from which we have thus far been able to obtain the same. We shall add to this list reports from other localities as they may come to hand:

Our Rain Gauge.

NAME OF PLACE.	LATEST REPORT.	TOTAL.
San Francisco.....	For the Season	16.18
Davisville (Yolo)....	" "	10.57
San Rafael.....	" "	35.24
Santa Cruz.....	" "	16.09
Gilroy.....	" "	17.90
Colusa.....	" "	8.76
Napa City.....	" "	19.23
Grass Valley.....	Jan. 24 to Jan., 25 6.50	12.08
Yreka.....	For the Season	9.14
Los Angeles.....	" "	21.18
Santa Barbara.....	" "	13.44
Monterey.....	" "	8.40
Woodland.....	" "	10.67
Nevada City.....	" "	35.53
Lakeport.....	" "	14.58
Los Banos (Merced) ..	" "	3.42
Cherry Station.....	" "	12.00
Mare Island.....	" "	11.44

PLANT FOR TANNING LEATHER.—A new plant is found in Iowa, which is supposed to grow in the northern part of California, and which we now describe, that farmers and herd-men may look for it. Its use is for tanning leather. It contains more tannin than the best bark. To the eye it is a wild buckwheat. Its stem is a light red and much thicker, usually over one-eighth of an inch in diameter. The plant is tall as wheat. The leaves are the form of peach leaves. The joints of the stem resemble the leg of a fowl in shape. They are a little turzy. It flourishes on wet bottom land. Some people liken it to smart-weed. It is not reported as bearing a flower; but it yields seed, so a flower is supposed, of course.

Its botanical name is *Polygonum Amphibium*. Dr. Bolander has not found it, but he is advised that a plant answering the description has been observed in North California. Some seed is expected from Iowa, which will be described hereafter. Should any of our friends find this plant, they will confer a favor by informing us of the fact. It is believed to be worth looking after.

POULTRY YARD.

Moulting.

During the moulting season plenty of food must be given. Not only has the ordinary waste of the system to be provided for, but new feathers are to be secreted and grown. In their natural state moulting takes place in fowls at a season of the year when food is abundant. Besides this the females almost invariably cease the production of eggs at this time, so that the whole vital energy can be directed to the business of producing a new covering in addition to daily sustenance. In the artificial state in which our fowls are usually kept food enough must be provided for the increased production of eggs, and this extra supply should be kept up during the season of moulting, or the birds lose flesh, at the expense of future production.

In reference to giving medicine to fowls when moulting, authorities differ widely. Probably when they are closely confined, with no facilities for natural exercise or selection of natural food, some medical care may be necessary at such seasons; but in most cases all animals, as well as mankind, thrive inversely to amount of medicine administered, and the less given the better.

The *Canada Farmer*, speaking of this subject, seems to deprecate giving much medicine at this time, although recommending some tonic treatment. The *Farmer* says:

"Moulting is generally treated as a disease, and certain specifics given to fowls while undergoing this process. At this time, as well as in cold and wet weather, it is well to add some iron to the drinking water. Sulphate of iron alone becomes rusty and disliked by the fowls, but a drop or two of sulphuric acid added will prevent this. A lump of sulphate of iron the size of a filbert and three drops of acid, will be enough for each gallon of water, or a tea-spoonful of tincture of iron will answer as well. This mixture in their drinking water has a wonderful effect in helping them through the critical period of moulting. The particular kind of food given the fowls must now be specially seen to. A little hemp seed given two or three times a week will be very beneficial, and even ale may be given to delicate fowls, although it should always be used sparingly, as it usually causes purging, and some breeds do not require it at all. A little extra meat should now be given; besides being beneficial at this season, it has the effect of making them commence laying earlier."—*Country Gentleman*.

POULTRY SHOW AT HARTFORD.—The great poultry show at Hartford, Connecticut, attracted a very large attendance. The collection of light Brahmas was the largest and best ever brought together in the United States. The *Hartford Evening Post* of December 18th, in describing the 3d day of the show, says: The hall was visited by at least 2,000 persons yesterday, and the attendance up to noon indicates that the attendance will be even larger to-day. Persons come from all parts of the State, and all join in saying that the show far exceeds any yet held by the society. Among the sales may be noted that of George W. Bradley, of Hamden, who sold his best Partridge Cockerel for \$200, to J. F. Peckham, of Providence, Rhode Island, president of the Rhode Island society. George W. Dixon, of Worcester, sold a pair of rabbits to David Thompson, of Boston, for \$65. The earage of the doe was 20 1/4 inches. Mr. Charles A. Jewell purchased of Philander Williams, of Taunton, a pair of fine white Cockerels. John W. Sprall, of Stratford, a pair of brown Leghorns to Amos Pillsbury, for \$50.

SALE OF FINE FOWLS.—J. Boardman Smith has sold to M. Eyre, of Napa, Cal., one of his finest cockerels, "Pet, Jr.," and six of his breeding hens. "Pet, Jr.," is out of Smith's famous cock "Pet" (113), and was awarded 2d premium at the late exhibition of the Connecticut Stock Breeders' Association. This will give Mr. Eyre one of the very best breeding pens of White Leghorns in the United States. —*Fancier's Journal*, Dec., 1874.

SHEEP AND WOOL.

Spanish Merino Sheep—As They are and Have Been.

EDITORS PRESS.—Spanish merino sheep, as they are here with their modern improvements, present a wonderful contrast with those in Spain. From all we have seen and read of these, there seems to have been little change in them from the earliest reports until the present. They seem to be too long and rangy and present too much bare surface (or bare of wool). We now grow them much larger, and more compact and stylish. We have been able to furnish nearly four times as much wool per head as there has been produced in Spain, while the fine qualities of their wool has been fully retained. The German State-produced from them a fine staple of wool, but at the expense of size and constitution. France, too, increased the size and also the weight of fleece, yet did not build up sufficient

constitution. America, alone, has claims to the name of the present improved merino. As improved, why should they yet be styled Spanish? We call the descendants of Spaniards who have been here naturalized, and grown up as American citizens, Americans. They still retain another name for the sheep that show a long line of ancestors bred here on this continent. There is a great difference found here in the different flocks—some have made great improvements in theirs; others have made still more. Most of the breeders are too fearful to invest, lacking confidence in their business, content themselves with two pounds to seven pounds each, as they do in Spain. In my experience of thirty years I have been extravagant in my purchases from the best breeders, and the result is, my sheep have steadily improved, and by a continuation of these annual purchases, I believe I can in a few years exhibit a flock that will average over 20 pounds each. From the past experience I am certain I can do it, and that in a few years more. Already I have a number that now exceed it; besides I have found out in the last ten years that we are far on the road to that point. I wish you could spend a day or two here, and look over my flock. However, we are so far distant that we will not likely enjoy that boon, and yet I sell many sheep that go to your land of gold.

JOHN S. GOE.
Brownsville, Fayette county, Pa.

Curing Scab in Sheep.

One of our subscribers inquired recently about the best method of curing scab in sheep. We cannot do better under the circumstances, than to republish two methods described in the *RURAL PRESS* of November 4, 1871, which are as follows:

After shearing in the spring, the sheep affected are immersed in a solution made of from 500 to 600 pounds of tobacco leaves or stems, procured from the cigar makers at from 4 to 6 cents per pound—steeped and kept about as hot as the hand can bear. To this add 75 pounds of sal soda. This is put in a vat which is placed in an excavation in the earth. The vat is about 16 inches wide with a level bottom about 20 feet in length, and at the end of this a bottom running about 24 feet, and inclining upward until it comes to the surface, where it widens out, forming a platform sufficiently wide for the animals to drain out. The deep end of this vat is sufficiently deep to allow a thorough immersion of the sheep when plunged in—about 4 feet. In about ten days repeat the washing and turn the sheep into a new range, and they will show a healthy skin throughout the season.

Another and simpler method is to take about 10 gallons of hot or cold water; 5 pounds tobacco, 1 pound corrosive sublimate, 2 1/2 pounds blue stone, to which may be added, 2 pounds sulphur. Apply to the parts affected with a brush or drab. This is also declared to be an effectual cure.

LUSTER SHEEP.—A fleece from a Luster sheep a new breed produced in South Australia, attracted attention at a recent fair in Bremen. The wool was remarkably fine, of silken sheen and softness and of unusual length—over five inches—and of snowy whiteness. It was the opinion of all who examined it that cloth made of it would prove of superior quality. This wool was cut from a yearling ram of the new variety called Luster, the result of in and in breeding of Negretti sheep with Leicester or Lincoln. The number of generations is not stated. But in softening the long and hitherto harsh wool of the Lincolns, retaining the fine gloss which makes this kind of wool so valuable in the manufacture of alpaccas and other stuffs, a great desideratum seems to have been reached.

J. C. C.

THE DAIRY.

Small and Large Milkers.

A few poor cows are quite apt, in one way or another, to work in a dairy, and by their diminutive yield barely pay for their keeping, and perhaps not even that, but cause an actual loss. A dairyman of my acquaintance, having forty cows, found, by measuring the milk, that he had five in his flock which did not give milk enough in the whole season to pay for their keeping by five dollars apiece. He had five others that paid their keeping and five dollars a head more. The profit and loss on these cows just balanced each other, he kept the ten cows a year for nothing, losing the whole of his time and labor in caring for them and their milk; besides the depreciation of stock and the interest on the cost, which were not taken into the reckoning. When I was collecting cows for the first dairy I set up, an aged and observing dairyman said to me: "Look out for good cows; there is a great deal of money made in this country by dairying, but it is all made from good cows." The difference between a good cow and a poor one is not generally appreciated. Often rather otherwise the price at which cows are bought and sold is made to accord with the amount of milk they will give. But this is not a sound way of estimating their value. Beef cattle may be estimated by the pounds of beef they will make. A bullock that will make 500 pounds of beef may be worth half as much as one that will make 1,000 pounds; but the cow that produces only 100 pounds of butter

a year, is not worth half as much as one that will make 200 pounds in the same time. As it will take the former cow two years to make as much butter as the latter will in one, she will cost the owner a year's keeping more than the other cow will, to get the same amount. The butter from the poor cow costs double what it does from the good one and is produced at a ruinous rate to the farmer. Such a cow will not pay the cost of keeping, and is only fit for the shambles. She ought certainly never to occupy a place in the dairy. But the loss sustained by a small yield is not all occasioned by a bad selection of cows. Many cows which otherwise might be classed as profitable milkers, are made unprofitable by the treatment they receive at the hands of the dairyman. Careless milking, harsh treatment, worrying, and exposure to severe storms and to extremes of heat and cold, abate the flow of milk, and occasion much needless loss. Twenty five per cent. variation in the annual product, is easily made by kindness and severity. Comfort and a satisfied quietude are very efficient in promoting a liberal flow of milk. Full feeding is equally important, and the want of it is perhaps the most prolific cause of abatement in the returns of the dairy. In a large percentage of dairies the yield of milk is annually made to dwindle down to the limit of profitable production, and sometimes below, from deficiency and irregularity in the food supply. Very few dairymen give their cows as much as they need to eat, except for a short time in the season. In the spring and early summer, when the ground is moist and warm, a vigorous growth of grass is produced, and a flush of feed supplies the cows for a time with all they can appropriate, and crowded bags and flowing pails attest their full supply. But presently, in the long hot and dry days of July and August, the ground becomes parched, and the grass stops growing and dries up. If the cows can fill themselves during the day, they are commonly allowed to run without any additional food. As grass fails in quantity and quality, and more labor is required to get it, less is consumed and the milk diminishes.—*Farmers' Advocate*.

ATTEND TO COWS' UDDERS IN EARLY WINTER.—A writer in the *Vermont Farmer* utters the following timely caution in regard to cow's udders, in drying them off. As my cows are "drying off" at this season of the year I find their udders require frequent attention. I have failed to notice in the agricultural journals any complaint of such trouble, but in my own dairy, and particularly with such cows as are in the highest condition, clotted milk is very apt to collect in one or perhaps all the quarters of the bag after milking has been discontinued, and sometimes even much later, after I have supposed the flow of milk to be entirely arrested and the bag quite dry. As this secretion goes on, unless the clotted matter is withdrawn, the teat and udder become more and more distended, inflammation ensues and putrefaction of the contents sets in. I make no question but that neglect of this matter is the cause of permanent mischief to the udder, and particularly of that contracted condition of the muscles which regulate the passage of milk from the bag into the teat, a condition discovered not unfrequently, and with surprise as well as regret, when cows come into milk in the spring, and which ever after renders the milking of such cows very irksome.

NEW AND WIDE USE FOR INFUSORIAL EARTH.—The use of infusorial earth as a non-conductor of heat is suggested by the *Monetary and Mining Gazette*. Tripolite or infusorial earth, being a worse conductor of heat than coal ashes, and almost as poor as flax chaff, and being refractory, is adapted for walls of ice cellars and fire proof safes, for casing steam boilers and pipes, etc., and possesses the advantage of affording protection against rats and mice. Its lightness is also a great recommendation. One cubic foot of it weighs 2 1/2 to 26 pounds; the same bulk of dry coal ashes, 40% to 42% pounds, and of dry earth, 94 to 128 pounds. For casing steam pipes it is mixed with dry flax seed.

INFUSORIAL EARTH OCCURS IN INEXHAUSTIBLE QUANTITIES ON THIS COAST. It is largely used here for polishing powder as well as for other purposes. It is also largely employed in the manufacture of giant powder, although that obtained here is not considered sufficiently fine for that purpose—a better quality is imported from Europe.

GUADALUPE ISLAND COMPANY.

Notice is hereby given that the annual meeting of the stockholders of the GUADALUPE ISLAND COMPANY will be held at its office, 306 Pine Street, San Francisco, on Saturday, January 30th, 1875, at 3 P. M.

WM. M. LANDRUM, President.

ARTHUR RODGERS, Secretary.

BREEDERS' DIRECTORY.

PURCHASERS OF STOCK WILL FIND IN THIS DIRECTORY THE NAMES OF SOME OF THE MOST RELIABLE BREEDERS. OUR RATES.—Six lines or less inserted in this directory at 50 cts a line per month, payable quarterly.

CATTLE.

R. ASHBURNER, Baden Station, San Mateo Co., Cal., breeder of Short-horn cattle. Pure Bred Bulls for sale, from cows of choice milking strains.

J. BREWSTER, Galt Station, Sacramento Co., Cal., breeder of Short-Horn Cattle.

J. D. CARR, Gabilan, Monterey Co., Cal., breeder of Trotting Horses, Short-Horn Cattle, Thoroughbred Spanish Merino Sheep and Swine.

A. MAILLARD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.

W. L. OVERHISER, Stockton, San Joaquin Co., Cal., breeder of Short-Horn Cattle and Berkshire Swine.

STANTON & POWERS, Sacramento, Cal. Choice Jersey Heifers at reasonable rates, Address L. C. Powers, Sacramento, Cal.

MOSES WICK, Croville, Butte Co., Cal., breeder of Short-Horn Cattle. Young bulls for sale.

SHEEP AND GOATS.

MRS. ROBERT BLACOW, Centerville, near Niles Station, Alameda Co., Cal. Pure-Blooded French Merino Sheep for sale.

THOS. BUTTERFIELD & SONS, Hollister, San Benito, Cal. Importers and breeders of Angora Goats and Sheep.

N. GILMORE, El Dorado, El Dorado Co., Cal., importer and breeder of Angora Goats.

LANDRUM & RODGERS, Watsonville, Santa Cruz County. Pure-Bred Angora Goats and Cotswold Sheep for sale.

SEVERANCE & PEET, Niles, Alameda Co., Cal., breeders of Thoroughbred Spanish Merino Sheep.

A. G. STONESIFER, Hill's Ferry, Stanislaus Co., Cal., breeder of Pure-Blooded French Merino Sheep.

L. M. SHIPPEE, Stockton, Cal. Importer and Breeder of Spanish Merino Sheep, Durham Cattle and Essex Swine.

POULTRY.

GEO. B. BAYLEY, Cor. 16th and Castro streets, Oakland, Cal. Imported Brahmas and other choice fowls for sale.

ALBERT E. BURBANK, 43 and 44 California Market, San Francisco, importer and breeder of Fancy Fowls, Pigeons, Rabbits, etc.

M. EYRE, Napa. Bronze Turkeys, Emden Geese, Choice Fowls, Pigeons, Rabbits, Ferrets.

Mrs. L. E. McMAHAN, Dixon, Solano Co., Cal. Bronze Turkeys now ready for sale from the best imported stock; also eight varieties of choice Chickens; Eggs in season can be purchased very reasonably.

Mrs. L. J. WATKINS, Santa Clara. Premium Fowls. White Leghorn, S. S. Hamburg, Game Bantams, and Aylesbury Ducks. Also, Eggs. 21st-3rd

C. W. WILSON, San Francisco. The largest and heaviest Bronze Turkeys the world ever saw. One pair, 19 months old, over 72 pounds now. 1 offer for sale extra large Toms, old or young; also Eggs. Correspondence solicited. Address C. W. Wilson, P. O. Box, 1874, San Francisco.

LEA & PERRINS'

—CELEBRATED—

Worcestershire Sauce.

Declared by Connoisseurs to be the only good SAUCE.

Caution Against Fraud.

The success of this most delicious and unrivalled Condiment having caused certain dealers to apply the name of "Worcestershire Sauce" to their own inferior compounds, the public is hereby informed that the only way to secure the genuine is to ask for LEA & PERRINS' SAUCE, and see that their names are upon the wrapper, labels, stopper and bottle.

Some of the foreign markets having been supplied with a spurious Worcestershire Sauce, upon the wrapper and labels of which the names of Lea & Perrins have been forged, L. & P. give notice that they have furnished their correspondents with power of attorney to take instant proceedings against manufacturers and vendors of such, or any other imitations by which their right may be infringed.

To be obtained of Messrs. CROSS & CO., San Francisco.

CO-OPERATIVE MARBLE WORKS.

JOHN DANIEL & CO., Manufacturers of and Dealers in

Monuments, Headstones, Tombs, Mantel Pieces, ETC.,

421 Pine street, between Montgomery and Kearny, San Francisco. 21st-3rd

Orders Wanted at the National Employment office, 608 Market street, room 9; office crowded daily with good men and women, seeking employment; particular attention paid to country orders. 25th-3rd A BRANDT & CO. Prop's

Geo. W. Chapin, Real Estate Agent, 434 Montgomery St., San Francisco, buys and sells Ranches in all parts of the State. City Real Estate exchanged for Country Property. MONEY LOANED. Post Office Box 1130

For the very best Photographs go to BRADLEY & RUTLEDGE'S GALLERY, with an "Elevator" 429 Montgomery street, San Francisco. 2nd-6th

BLOOMINGTON NURSERY, Bloomington, Ill.—F. KENNIX. Spring lists free, or the set of four catalogues post free for twenty cents.

\$5 to \$20 Per Day at home. Terms free. Address G. STINSON & Co., Portland, Me.

No AGENTS are authorized to receive subscriptions for this paper at less than our advertised rates.

C. H. WHEELER.—Please address this office.

Poultry Breeders.

BRONZE TURKEYS.

THE HEAVIEST IN THE WORLD!

MY SPECIALTY.

I was the first man on this Coast to import and breed mammoth Bronze Turkeys. I have as progeny of my imported birds, the largest single Tom, Hen and pair or trio of Turkeys, for their age, that the world ever saw. One pair, 19 months old, now weigh over 72 pounds; Toms 40 pounds and over, Hens 20 to 30 pounds. This is not what the birds weighed six months since or what they will weigh when fattened, but what they weigh now as they run with the flock. During the coming season I propose to sell eggs for hatching from this stock; the eggs will be packed in my improved shipping box, which carries safely. Orders now received for early Spring delivery. I can spare a few extra large Toms; also, a few pair of great size. Weight guaranteed or no sale. I offer fowls and eggs from my very fine and choice collection of Brahmas, Cochins, Leghorns, Houdans, Ducks, etc. My yards contain the best strains of the above varieties. For further information apply to

C. W. WILSON,
P. O. 1874. San Francisco.

S. H. COOK,

BREEDER OF

CHOICE LIGHT AND DARK BRAHMAS,

B. B. R. Game Bantams,

Mammoth Bronze Turkeys,

TOULOUSE, BREMEN AND AFRICAN GEESE,

ROUEN AND MUSCOVY DUCKS.

Some choice Light and Dark Brahmas for sale Also, Bronze Turkeys. Address

S. H. COOK,

McDonald's, Washington Co., Pa.

Send for Price-List.

OAKDALE POULTRY YARDS.

SATISFACTION GUARANTEED.

Light Brahmas, Dark Brahmas, Buff Cochins, BRONZE TURKEYS, AYLESBURY AND ROUEN DUCKS.

A. A. MILLER,

Oakdale Station, Allegheny Co., Pa.

Correspondence Solicited.

J. S. BEANER,

BREEDER OF

WHITE LEGHORNS.

My fowls are from stock that took the Special Premiums at the Boston Poultry Show in 1873 and 1874 Also at Pittsburgh this year. Eggs \$3 per setting. My P. O. address is Rochester, Beaver County, Pa. Correspondence Solicited.

EDGORTH POULTRY YARDS.

R. F. SHANNON,

Breeder of

Light and Dark Brahmas, Silver Duckwing

and Black Breasted Red Game Bantams.

P. O. Box 568. PITTSBURGH, PA.

Light Brahma Eggs, \$4, gold; Dark Brahma Eggs, \$6; Bantams Eggs, \$4. Orders received for Pigeons to be delivered in the Fall. At Pittsburgh Show, January, 1875, on 4 coops fowls and 8 coops pigeons, won 6 firsts, 2 second 1 third and 9 specials.

C. B. ELBEN.

I make a specialty of

Fine Light Brahmas,

AYLESBURY AND CALL DUCKS

BLACK AFRICAN BANTAMS, &c.

Send for my new Catalogue and Price List.

C. B. ELBEN, Pittsburgh, Pa.

R. H. PECK,

BREEDER AND SHIPPER OF

Fancy Poultry and Eggs,

From Pure and Imported Stocks.

Having been very successful as an exhibitor, I solicit patronage. Address, with stamps, R. H. PECK, Earlville, Portage County, Ohio.

WHITE LEGHORNS.

I make these fowls a specialty and have spared no pains in procuring stock from the finest strains in the United States, and now offer eggs for hatching at Eastern prices from the finest fowls on the Pacific coast. They are small eaters, non-setters and very hardy, and for eggs are without a rival, being almost constant layers, and are truly styled "the farmer's fowl." Eggs, \$3 per dozen, (13) or six dozen for \$15. Securely packed to carry any distance, and delivered to the express on receipt of price. Cash to accompany order and orders taken in rotation.

w. J. HUNT.

Sebastopol, Sonoma county, Cal.

E. M. Hively's Poultry Yards,

YOUNGSTOWN, OHIO.

20 Varieties Land and Water Fowls,

—ALSO—

PIGEONS AND EGGS IN SEASON.

Correspondence Solicited.

T. A. WINFIELD,

Hubbard, Ohio.

Breeder of CHOICE POULTRY, BRAHMAS,

COCHINS, BLACK AND RED GAMES,

GAME BANTAMS, HAMBURGS AND POLISH.

Also, choice collection of Fancy Pigeons. Send for Price-List. Eggs for sale in season, from \$3 to \$6 currency.

J. S. HALVERSTADT & CO.,
Breeders and Shippers of
HIGH CLASS POULTRY

Embracing all

THE LEADING VARIETIES,

LEETONIA, OHIO.

Chicken Eggs, \$3; Turkey Eggs, \$5; Wild Geese Eggs, \$5. Letters of inquiry promptly answered. Descriptive Circulars and Price Lists sent on application.

Live Stock Notices.

REEDVILLE HERD.

PROPRIETOR,

S. G. REED. - - Portland, Oregon.

I have for sale, Shorthorns of the most approved and fashionable families; among them are a few one year old Bulls of great merit, the produce of Cows imported direct from England, and sired by the renowned Mantelini bull, GOVERNOR GENERAL, 10,156, A. H. B., Vol. X, p 175. Also on hand,

AYRSHIRE CATTLE,

COTSWOLD AND

LEICESTER SHEEP,

AND BERKSHIRE PIGS.

of the highest standard. For particulars apply to

S. G. REED, Portland, Oregon,

Or WM. WATSON, Hillsboro, Oregon.

1v9-9w-tf.

12 Short-Horn Bulls,



fat and sleek, thoroughbred, just from Kentucky, at SAXE'S Stables, 35 Ritch Street, between Folsom and Harrison, two blocks from Grand Hotel. Inquire at SAXE'S Stables, or Room 32 Russ House. 3v9-3m

FOR SALE.

A pair of thoroughbred Chester White Hogs, one year old. A. B. ROWLEY, Mayfield, Santa Clara Co., Cal.

JACKS FOR SALE.

Two fine Jacks, one four and the other five years old, large and likely sired by old Samson, and of the best Kentucky Jinnets; the best stock of the kind in the State. Address B. C. EPPERSEN, 2y9-2m Bear Valley, Colusa County, Cal.

Lands and Homes for Sale.

NINE FINE

FARMS FOR SALE.

Near Middletown, Lake county, containing respectively 1600, 1100, 600, 300, 200, 200, 130 and 80 acres. The most of these places contain as fine land as there is in California, and the home market averages twenty per cent. higher than San Francisco. When we take into consideration the quality of the soil, certainty of crops, the market caused by the development of mines and the Mineral Springs, the climate and privileges of schools and religious society, we are satisfied that no such inducements can be offered in any other part of the State, to those desiring to purchase land.

Having examined all these places personally, we can give a minute description of each. Apply to

JOSEPH PETTIT,

or WM. GORDON, No. 215 Kearny Street, Up Stairs. Ring the Bell. 3v9-tf

FOR SALE.

HOMESTEAD AND FRUIT ORCHARD

About thirty-five miles from Stockton, containing three acres of land, a good house of eight rooms, good well, etc. Over two hundred fruit trees all in fine bearing order; such as Peach, Pear, Apricot, Apple, Plum, Figs, Oranges. A fine chance and a good market. Price, \$1,800. Title perfect. Apply to

GEO. W. CHAPIN,

434 Montgomery street, S. F., or this Office.

5,500 ACRES

Of the best portion of the old NOMELOCKE RESERVATION, in Tama county, for sale very low; only five dollars per acre; one-third down, one-third in one year and one-third in two years, with interest at one per cent. per month. Will be sold together or in two parcels. This is one of the finest tracts of grazing land in Northern California; is abundantly watered by numerous perpetual springs and has two miles of the Elder Creek, a clear mountain stream. Its grass never fails from drought, and is of the best quality for sheep and has no clover burr. 800 acres of level plow land; timber for posts, fuel, etc. Enquire of ALLEN WILCOX, Los Angeles, or F. B. WASHINGTON on the tract, twenty miles west of Tehama.

FOR SALE.

In the Riverside, New England and Santa Ana Colonies, in the valley of the Santa Ana river, San Bernardino county, California, twenty thousand (20,000) acres of clean, rich, level, valley land, with an abundance of water for irrigation. There is no better land in the State for the orange and all other semi-tropical fruits, and no finer climate in the world. Inquire of W. T. SAYWARD, 420 Montgomery street, San Francisco; S. C. EVANS, Fort Wayne, Indiana; C. I. HUTCHINSON, 314 California street, San Francisco; L. UPSON, General Agent, Riverside, San Bernardino county, Cal.

CENTINELA COLONY

LOS ANGELES CO. CAL.

SIX MILES WEST OF LOS ANGELES, CAL.

The unparalleled success of the

LOMPOC COLONY,

SANTA BARBARA COUNTY.

Has induced the "Centinela Land Company of Los Angeles" to subdivide and place in market for sale and settlement, under the direction and management of the "California Immigrant Union," of San Francisco, the "Centinela and Sausal Redondo" Ranches, containing Twenty-five Thousand Acres of Beautiful Valley Land, located seven miles west of the city of Los Angeles, and extending to and fronting on the Pacific Ocean. There is now on the tract an orchard of about three hundred acres, containing Orange, Lemon, Lime, Fig, Walnut, Almond and Olive trees, and a nursery of young Orange and Lime Trees. Some of the Orange and Lime trees are in bearing. The tract will be subdivided in twenty, forty, eighty, one hundred and sixty-acre farms, and sold upon easy terms and long credits.

Auction Sale of Town Lots

—AND—

5, 10, 20 and 40 ACRE FARMS,

WILL COMMENCE ON

Monday, Feb. 15, 1875, at 12 o'clock, M.

And continue Five Days. The sale will take place on the Rancho. Parties desiring to purchase should be on the ground a few days prior to the sale, in order to examine the property. Title—United States patent.

SITUATION.

"Centinela," with the addition of the "Sausal Redondo," contains 25,000 acres. The boundary of the Rancho commences three and a half miles from the city limits of Los Angeles, and extends to the Pacific Ocean.

TOPOGRAPHY.

"Centinela" is made up of one broad, level, fertile valley, of over twenty thousand acres, and beautiful fertile rolling hills near the ocean.

SOIL.

The soil is an exceedingly fertile loam, and is, without exception, the richest and most productive in Southern California. Its vicinity to the ocean insures a crop without irrigation. Excellent wheat has been raised for the last two years upon the hills adjoining the ocean. This wheat field contains 1,000 acres, and covers the lightest soil upon the Rancho. There is no alkali or barren land.

SEMI-TROPICAL FRUITS.

There are a few bearing orange and lime trees upon the Centinela, and the fruit they produce is of the largest and finest quality. There is an orchard containing 6,000 orange trees three years old, and 1,700 almond, lime and lemon trees. The almond, lime and lemon trees will bear fruit in 1875. The orange trees will bear in five years. There are 7,000 three-year-old orange trees in the nursery near the orchard. Fig, pepper and gum trees grow without irrigation. The entire orchard can be taken care of by three men with six horses. The orchard will be kept undivided by the company, to save the expense of each shareholder having a few trees to take care of. The almond, lime and lemon trees will yield an immediate return. In five years each orange tree will produce \$20 per annum, or \$300 per share for those now planted. There are flowers in the garden in bloom every day in the year.

SHEEP.

A flock of about 14,000 sheep will be kept undivided, to save expense to the shareholders. The sheep will produce in increase and wool over \$2 each, yearly, over expenses. They will be grazed upon outlying and unsold lands of the company. THE "NO FENCE" LAW IS IN FORCE IN LOS ANGELES COUNTY.

CLIMATE.

The climate of the "Centinela" is without exception the finest and most equable in the world. It varies but little throughout the year. The mean temperature is about 60 degrees. The mercury falls but little below 60 in winter and rises but little above 60 in summer. You sleep under one pair of blankets and with your bed-room window open every night in the year.

AGRICULTURE.

The soil of the "Centinela" is admirably adapted for all kinds of grain, vegetable and fruit.

WATER.

The Centinela creek rises upon the Rancho and runs through the northern portion of the tract. It affords an abundance of clear spring water. The source of the Centinela creek consists of several natural artesian springs, showing that artesian water can be obtained by boring.

THE TOWN.

A square mile is laid off at an eligible point on the tract, with lots 31x135; avenue 100 feet, and streets 80 feet wide. A stream of water can be brought in so as to supply every lot with crystal, cool, sweet water. One of the forty-acre tracts is set apart for a College and Farm School, and there will be a Ten-acre Park on each of the four sides of the town, and Four Blocks in the center of the town for Public Buildings, Schools, etc. A large lot will also be set apart for each Religious Denomination, and a block given for the erection of a large hall by the different Fraternal, Grange and Temperance Societies.

FARE.

Parties desiring to visit the Rancho can take the 8:10 A. M. train of the Southern Pacific Railroad to Soledad, thence by Coast Line Stage to Los Angeles; by 4 P. M. train to Bakersfield, then by stage to Los Angeles; or by Pacific Mail Co.'s and Goodall, Nelson & Perkins' steamships direct to Los Angeles, where conveyances can be had to go to the Rancho free of charge.

RAILROAD AND WHARF.

The Company intend building a wharf to enable Steamships from San Francisco and other places to land passengers on the tract. A narrow-gauge railroad will be built from Los Angeles to the wharf, a distance of about 12 miles. The Main Street and Agricultural Park Railway will soon be built to the park, about miles from the tract. This railway will be extended to the tract as soon as the settlement will justify it. Lithographed maps can be had at the office in San Francisco. Apply to

W. H. MARTIN,

General Agent California Immigrant Union, 514 California street, between Montgomery and Kearny streets, San Francisco, to TEMILE & WORKMAN, Bankers, or Gen. SHIELDS, Los Angeles, or O. L. ABBOTT, Corresponding Secretary State Grange Immigrant Aid Association, Santa Barbara.

P. S.—A second sale will take place on the Rancho, commencing on Monday, the 8th of March, 1875.

Banking and Insurance.

The Pacific Mutual Life Insurance
Company of California.

No. 41 Second street, - - - Sacramento

ACCUMULATED FUND, NEARLY

\$1,250,000.00.

\$100,000 Approved Securities, deposited with the California State Department as security for Policy holders everywhere.

LELAND STANFORD.....President
J. H. CARROLL.....Vice-President
JOS. CRACKBON.....Secretary

All Policies issued by this Company, and the proceeds thereof, are exempt from execution by the laws of California. THE ONLY STATE IN THE UNION that provides for this exemption.

Policies issued by this Company are non-forfeitable, and all profits are divided among the insured. Policies may be made payable in Gold or Currency, as the applicant may elect, to pay his premium.

Executive Committee:

LELAND STANFORD, J. H. CARROLL,
ROBT. HAMILTON, SAMUEL LAVENSON,
JAS. CAROLAN.

SCHREIBER & HOWELL,

11-29-cow-bp-3m General Agents, Sacramento.

California Farmers Mutual
Fire Insurance Association.

Office, 6 Leidesdorff St., - San Francisco.

Directors:

A. WOLF, A. W. THOMPSON, I. C. STEELE,
I. G. GARDNER, J. C. MERRYFIELD, J. D. BLANCHARD,
G. P. KELLOGG, Treas.

Finance Committee:

I. G. GARDNER, J. C. MERRYFIELD, A. W. THOMPSON

Trustees:

J. M. HAMILTON, Lske Col. C. STEELE, San Mateo Co
J. C. MERRYFIELD, Solano Co. A. B. NALLEY, Sonoma Co
G. W. COLBY, - Butte Co. O. S. ARNOTT, S'ta Barb'a Co
H. B. JOLLEY, - Merced Co. A. W. THOMPSON, Sonoma Co
A. WOLF, San Joaquin Co. E. W. STEELE, SL Obispo Co
J. D. BLANCHARD, Pres't. W. H. BAXTER, Sec'y.

This association is organized for the purpose of affording the farmers of this State the means of safely insuring against loss by fire, at actual cost of insurance, without being connected with city risks. a822-tf

Anglo-Californian Bank.

LIMITED.

Successors to J. Seligman & Co.

London Office.....No. 3 Angel Court
San Francisco Office.....No. 412 California street.

Authorized Capital Stock, \$6,000,000,

Subscribed, \$3,000,000. Paid in, \$1,500,000.

Remainder subject to call.

DIRECTORS IN LONDON—Hon. Hugh McCulloch, Reuben D. Sassoon, William F. Schullfield, Isaac Seligman, Julius Sington.

MANAGERS:

F. F. LOW and IGNATZ STEINHART,

SAN FRANCISCO.

The Bank is now prepared to open accounts, receive deposits, make collections, buy and sell Exchange, and issue Letters of Credit available throughout the world, and to loan money on proper securities. 2v27-eowbp

DIVIDEND NOTICE.

The Farmers' and Mechanics' Bank of

SAVINGS have declared a Dividend for the half year ending December 31, 1874, at the rate of ten per cent. per annum on term, eight per cent. per annum on class one ordinary, and six per cent. per annum on class two ordinary deposits, payable on and after January 15th, 1875. By order G. M. CONDER, Cashier. 3v9-1m-bp

THE CELEBRATED

H. H. H.

HORSE MEDICINE

IS STILL AHEAD OF ALL OTHERS.

The Wholesale Druggists of San Francisco, give evidence of its appreciation throughout the State, by and rapidly increasing orders. We pledge it a cure for SPAVINS, WIND GALLS, SWEENEY, SCRATCHES,

LAME AND STIFF JOINTS,

CALLONS, LUMPS,

AND ALL BLEMISHES,

SPRAINS OR BRUISES.

It is a household blessing and no family should be without a bottle in the house. For sale everywhere.

WILLIAMS & MOORE, Prop'rs.

25v8-6m Stockton, Cal.

ALEX. BUSHWELL,

BOOK BINDER, PAPER RULER

AND BLANK BOOK MANUFACTURER.

418 & 420 Clay Street, S F

Blank Books Ruled, Printed and Bound to Order

BETTER THAN MINING STOCK.

A valuable Patent for sale. No objection to taking real estate in part payment. Residence, Washington street on the levee. P.O., Sacramento.

jan2 bp-tf O. A. DAVIS.

AGRICULTURAL NOTES.

ALAMEDA.

GRAIN SHIPMENTS.—Livermore *Enterprise*, Jan. 30: The shipments of wheat from here from January 1, 1874, to January 1, 1875, amount to 9,488 tons, and its destination was as follows: To Oakland wharf, 7,257½ tons, to San Francisco, 2,535 tons; to Oakland, 378½ tons; to Sacramento, 40¼ tons, and to Brooklyn, 270¼ tons.

The shipments of barley, during the year ending January 1, 1875, amounted to 1,325 tons. Of this amount 754 tons were shipped to Oakland wharf; 380 tons to San Francisco, and the rest in smaller quantities to Warm Springs, Stockton, Haywood, Dutch Flat, Ogden and Reno, Nevada, Chicago, Milwaukee and Burlington, Iowa.

During the year 1874 there were shipped from here 140 tons of hay, 25 tons of straw, 60,200 pounds of oats, and 51,118 pounds of wool.

The total tonnage forwarded from and received at this place in the year 1874, amounted to 12,212 tons and total amount of freight and charges thereon, was \$31,633 46—all of which is pretty good for the Port of Pleasanton.

A note from Pleasanton says: Our warehouses still continue to ship wheat though they are pretty well reduced. During the month of December there were shipped from this station 7,188,854 pounds of grain—the largest shipment ever made from here in one month.

CONTRA COSTA.

THE OUTLOOK.—Antioch *Ledger* Jan. 30: The outlook for the farmers in this valley is truly encouraging. An average crop is now a certainty if we may judge by comparison with the condition of crops in former years, with the soil in a similar condition. The farmers are happy and as all business transactions depend upon the success of our producers, all classes have reason to hope for a year of financial prosperity. Already the effect of the late rain is seen in an increased business activity. From the upper San Joaquin, reports are most favorable. The grain between Bantas and Oristimba is reported to have an exceedingly fine appearance. Feed for stock is abundant and all are confident of a good season, while a few weeks since hope had nearly failed.

FOR TOBACCO CULTURE.—A company of citizens of Pacheco has been formed for a systematic trial of the adaptation of the soil and climate of that locality for tobacco culture, and its curing by the Culp process. There cannot be the least doubt of the success of the undertaking, since experience long ago demonstrated that tobacco can be grown in our section of the State as well as anywhere, the only failure having been in the curing, for which our dry climate does not seem suited; but the Culp process remedies this difficulty, and the prices of Culp cured California tobacco, in the Eastern markets as compared with that from other sections of the country, is evidence enough that there is none better, and very little that approaches it in quality.

CALAVERAS.

CROP PROSPECTS FOR THE WEST SIDE.—Stockton *Independent*, Jan. 28: We hear cheering reports from the west side of the San Joaquin. The rainfall has been copious, and reliable gentleman, old residents of that section, inform us that at no time in the history of California, has the farmers' prospect of receiving liberal remuneration for their labor and investments been more promising than at the present time. Our informants speak particularly of the section between Bantas and Oristimba creek.

The reports which reach us concerning the condition of the crops throughout the San Joaquin valley are of the most encouraging character. The late rain storm not only banished all fears of drouth, but infused new life into every branch of business. There is an immense area of land sown with wheat, and should nothing occur between now and the season of ripening to mar the prospects of an abundant harvest, the yield of 1875 will be the largest ever known in California. Farmers everywhere are in the best of spirits. Those engaged in mechanical and mercantile occupations share the feeling, and all look forward to a year of activity and abundance.

IN THE TULE.—A gentleman in the employ of Tide Land Reclamation No. 162, at Twelve Mile slough, writes us that the dams and other works of the company stood the recent wind and rain storm finely. Not a sod has been moved from any of the dams, even in number.

EL DORADO.

POTATOES.—El Dorado *Republican*, Jan. 28: Reports from some of the largest potato raising districts of the State inform us that the crop with them will be short this season in consequence of a blight, and it is fair to presume that as a consequence his crop will command unusually high prices soon. Our farmers should take advantage of this mishap, by planting large quantities, and thus become public benefactors and enrich themselves at the same time.

KERN.

SEVERE STORM.—Kern County *Courier*, Jan. 30: Tuesday afternoon we were visited by the extraordinary phenomenon of a snow storm. It fell in large flakes and with a blinding rapidity that would have done credit to Maine or Minnesota. As the ground was very wet it melted, at first, almost as fast as it fell, but it finally gained the advantage to such an extent as to cover the ground to a depth of five

inches. Wednesday morning dawned on as wintry a scene as it has ever been our lot to witness, but it speedily vanished under the warm rays of the ascending sun.

The Hyde steam wagon has been constantly at work on Mr. Carr's farm ever since the notice of its first trial in the *Courier*. It has constructed a vast length of ditches for irrigation, and is now clearing and getting ground ready for plowing—the occupation it is next to engage in as soon as it can be furnished with a properly constructed gang of plows. It promises to be a most useful, important and cheap agent in carrying on large farming operations.

THE ORANGE AND WALNUT IN KERN CO.—*Southern Californian*, Jan. 28: A great doubt as to the safety from frost has prevented any extensive experiments in the planting of the orange and walnut. A year ago Mr. P. A. Stine invested \$100 in Los Angeles orange trees, but they froze, passing through the mountains on their way here, and he did not renew the attempt. A few were brought, the first year, from a nursery at Santa Barbara, but we hear of none alive, and we believe they were not watered with care. It is said they require frequent waterings the first year. We learn that Mr. L. R. Reeder has two orange trees on the top of his mound, which have been left exposed through all this unusual season of frost, and are as fresh as when first planted. He has faith they will continue to grow, and does not believe any frosts of this section will injure them. They are now three years old. Mr. Tibbett, a mile south of the town, has had a nursery of walnut trees, every one of which for the last three years has been killed down to the ground. He thinks they have been carelessly and too much watered, late in the season, leaving an immature growth of wood which could not resist the frost. This year they were taken up before the frost came, and covered with earth, preparatory to transplanting in the spring, and with two years growth of wood, it is believed, they will readily bear all the succeeding winters. Two orange trees, brought from Louisiana, have been exposed all winter on the farm of Julius Chester, and are looking as fresh as ever. He purposes to procure a hundred large trees from Los Angeles, as late in the season as possible, being firm in the faith that one only need to use the care bestowed upon them when young in other parts of the State to make the enterprise a success. We hope many others will try the experiment, the result of which, we believe, will render the Kern river valley famous for its tropical fruits.

LOSS OF SHEEP.—As we go to press we learn that a large amount of damage has been done among sheep by the great storm. Large bands have been driven in lately from adjoining counties in search of food, and arriving here in almost a starving condition fell an easy prey to the storm. Many lambs, too, have perished from cold and exposure. The loss cannot now be ascertained with any degree of certainty, but it will be very considerable.

LAKE.

DAMAGES BY THE STORM.—Lindsey Carson suffered some damages on his farm by the late storms. Some of his fences were blown down, also the roof of his barn, and about forty valuable lambs perished. He thinks, however, that the rains have been vastly beneficial to the farming interest, and will ensure good crops throughout Lake county.

RAIN FELL HERE in considerable quantities during Friday and Saturday, though the storm was not so severe as the previous one. We are now having a spell of fine weather, which, if it continues, will help the growth of grass and grain.

MONTEREY.

FARMERS AT WORK.—Hollister *Enterprise*, Jan. 30: We have had no rain of consequence this week, but enough has fallen upon the country for the present for all practical purposes. Vegetation springing up rapidly; the valley and the mountain sides are arrayed in their gorgeous green mantles, and stock of all classes need go hungry no more. Those of our farmers whose land is in condition to work are engaged in seeding the portions unfinished prior to the rain. And some are preparing, since that event, to sow tracts which were intended to be left uncultivated. In view of the large acreage sown to grain, and the encouraging prospects for good crops, we anticipate a good showing for San Benito county the coming season.

TOBACCO.—Monterey *Democrat*, Jan. 30: At the house of a Mr. Scott—we believe on the land of Mr. Robinson—we saw this week a lot of tobacco hung up to cure. On inquiry, we learned that it was raised during the past summer on low grounds of the Buena Vista rancho, from seed of Connecticut tobacco. It looks very well and yielded very fairly to the acre.

NAPA.

YELLOW WILLOWS.—Napa *Register*, Jan. 30: We met Mr. Groezinger Monday, pruning saw in hand, going to St Helena to get an additional supply of yellow willow alips from some place up there, for his ranch at Yountville. He already has a large number growing and desires still more. He has them instead of rope to tie up grape vines, and says they are better, as they do not cut the vines. Mr. G. thinks they will yet become also an important article of manufacture here for making baskets, and even packages for shipping various articles; in time coming to be more economical than bags, boxes or barrels. Mr. G. is a wide-awake man, always on the lookout for anything that will add to the value of the country or its productive capacity, and we expect to hear from him yet in many an important enterprise

besides those with which he has already so vastly aided in improving and enriching the county.

PLACER.

OUR LAND AND WHAT WE CAN RAISE ON IT.—Placer *Herald*, Jan. 30: We believe Placer county offers advantages for obtaining land, equal to any other part of the State, according to its real value. There are, in some places, chances to obtain government land. Only a few weeks ago some parties from the East settled on a piece of government land, within a mile and a half of Auburn, which, when improved, will make a farm equal to the best. Such chances, though, are rare. Most of the land here belongs to the railroad company, and they ask from \$2.50 to \$5 per acre. There are chances for buying land more or less improved. Here, like everywhere else, there are some who want to sell out. We know a tract of good land, within five miles of this town, for sale, on which is good spring and ditch water, that can be bought for a little more than the cost of improvements.

Now, about the productions. All this land will raise good hay or grain, but is not so well adapted to such crops as the valley land. Fruit is the most profitable, and destined to become the great staple of the foot-hills of California, and when we say fruit, we mean all kinds in common use, from the orange and the fig, to the apple and the peach. It is already demonstrated that fruit of whatever kind raised in the foot-hills, is superior to that raised in the valley, and the valleys of California produce better fruit than most any other part of the world.

The fruit business here is young, but growing rapidly, and those who enter into it first are most likely to reap the richest reward. Other foot-hill sections offer land as cheap, that will produce fruit as good as can be produced here, but Placer has marked advantages not surpassed outside of the Bay counties. Alfalfa is also a profitable crop in the foot-hills. All kinds of nut trees, such as the almond, chestnut and walnut grow here to perfection, and their production alone might be made a profitable business. Our climate here, all things considered, is surpassed by none in the world.

We have it from the very best authority, that the farmers in the valley portion of Placer county sustained but very little damage, indeed, by the recent floods. Their damage by the recent rain was all gain, and their faces, which, before the last rain, would average twelve inches in length, have shortened up, and are radiant with happy smiles.

SONOMA.

BUTTER SHIPMENTS.—*Argus*, Jan. 30: Since and including Monday last, 375 boxes of butter have been shipped to San Francisco from Petaluma by the S. F. and N. P. Railroad. Each box contains 100 pounds, and the total for the five days is 37,500 pounds. On account of the break in the Marin Narrow Gauge Railroad the shipments have been somewhat larger than they otherwise would have been.

STANISLAUS.

GRAYSON.—Stanislaus *News*, Jan. 29: A friend writing from Grayson speaks in glowing terms of the prospects for a good crop and lively times at that place. The rain fall at that place during the recent storm amounted to 3 inches and seventy-seven one hundredths. For the season the amount is 8 inches and seventy-two one hundredths.

THE NORTHER.—We hear of but little damage in this vicinity other than the blowing down of fences and sheds.

SANTA CLARA.

ORANGES AND LEMONS.—*Mercury*, January 28: Splendid oranges and lemons are raised every year at the gardens of the Santa Clara College and in other places in Santa Clara and San Jose.

A CORRESPONDENT from Mountain View writes: Since the late rains the crops in this vicinity are looking well, except in places where the worms have made havoc. In these places the ground will have to be re-seeded.

The roads have dried up considerably since the storm. The people of this district claim to have the best roads in the county.

TULARE.

COTTONWOOD.—The Tulare *Times* Jan. 29: There has been a great quantity of grain sown in the cottonwood district, north of Visalia, this year. The farmers in that vicinity summer-fallow their lands and sow their grain early, and the consequence is that they have never missed raising a good crop without irrigation. We were informed this week by a gentleman from that neighborhood, that his grain is now six inches high, and the prospects were never better than they are this year for good crops.

ARTESIAN WELLS.—A gentleman who lives in the western portion of the county is boring an artesian well. It is now down 116 feet and a small flow of water is rising two feet above the ground. He designs sinking several feet farther. If artesian wells can be obtained at a moderate depth, and we have every reason to believe they can, it would be of immense value to this county.

YOLO.

SUCCESSFUL PLANTING.—Yolo *Mail*, Jan. 28: About the hottest day last summer, when the earth was completely drained of moisture, Mr. W. W. Brown planned an orange tree in his yard, digging first a very large and deep hole in the ground and preparing the earth by pulverizing and watering. The tree was about eight feet high, and all prophecies were that it would die. The other day we noticed two fine oranges on it. The tree is growing finely, notwithstanding its untimely transplanting.

PATENTS & INVENTIONS.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

[FROM OFFICIAL REPORTS FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.]

By Special Dispatch, Dated Washington, D. C., Feb. 3d, 1875.

FOR WEEK ENDING JAN. 19TH, 1875.

FAUCET.—William C. Binssey, S. F., Cal.
MORTISING TOOL.—Gustave Erlin, S. F., Cal.
MECHANICAL CALCULATOR.—Horace B. Martin, S. F., Cal.
GRIDIRON.—James H. Mitchell, S. F., Cal.
PHOTOGRAPHIC PLATE HOLDER.—Isaiah W. Taber and Thomas H. Boyd, S. F., Cal.
BATH ATTACHMENT.—Thomas D. Woolsey, S. F., Cal.
ROAD ENGINE.—Riley R. Doan, Sacramento, Cal.
MACHINE FOR TAPERING LEATHER.—John Settle and George W. Settle, Lebanon, Oregon.
DESIGNS
FOR CENTER PIECES.—(Five Cases)—Samuel W. Kellett, S. F., Cal.

—“The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue. NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & CO., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with perfect security and in the shortest time possible.

Agricultural Items.

THE HARVEST OF UTAH.—The quantity of wheat harvested in Utah was 30 per cent. less during 1874 than the previous year. Barley was 10 per cent. less; oats, 7 per cent. less; indian corn, 15 per cent. less; potatoes, 8 per cent. more; hay, 7½ per cent. less. Dried peaches, in consequence of an unusually large crop, footed up nearly four times as much in 1874 and 1873. There was an increase of 50 per cent. in eggs, butter and poultry, and the number of hogs, bees and sheep raised was considerably in excess of 1873.

FISH CULTURE.—The *Plumas National* says: Henry Landt, of the Big Meadows, has several men at work constructing a fishery, which he designs making one of the most extensive operations of the kind on the coast. The Big Spring, in the Meadows, is the basis of the operations, and large ditches, now being dug, are to lead the waters of several of the mountain streams into the spring, giving the trout an extensive range.

ALDEN FRUIT DRYER IN SONOMA.—The results of the working of the Alden fruit drying enterprise, which was established last year at Sonoma, have proved very highly satisfactory; so much so that the company contemplates enlarging their works for the operations of the coming season.

SALINAS RIVER CHANNEL.—The Captain of the steamer *Salinas* reports that the recent rains have quite changed the channel at the mouth of the river Salinas, and estimates that it has been shifted at least 1,000 yards from its former position.

GOAT RAISING.—C. S. Abbott, Flint, Bixby & Co., and B. Boswell have purchased most of the stock of the Guadalupe Island Company, and purpose going extensively into the business of goat raising.

MORRIS' RANCH.—There is a rumor afloat to the effect that certain parties propose to purchase the Morris Ranch and subdivide it into small parcels, to be sold to immigrants at reasonable rates.

THE OWNERS OF EAST LOS ANGELES having disposed of the first tract of 100 lots, on the installment plan, at \$100 per lot, have surveyed off and put on the market another 100-lot tract.

LOSS OF SHEEP.—Haggis & Tevis are reported to have lost between 1,500 and 2,000 sheep by the recent flood. The animals were grazing on the Norris Ranch.

VACAVILLE FARMERS say that the crop prospects were never better, and that more acres are in grain in that vicinity than ever before.

THE AMERICAN RIVER AT LYON'S CROSSING, below Auburn, was thirty feet above low-water mark last Tuesday week.

MULBERRIES FOR MEXICO.—Felix Gillet, of Nevada City, recently received an order from Mazatlan, Mexico, for 200 mulberry trees.

POTATOES IN PRUSSIA.—Prussia is taking steps to prohibit the importation of American potatoes.

THE PETALUMA RANCHO, for which a patent was issued at Washington on the 19th of November, consists of 66,622.17 acres.

THE WHEAT ON THE HIGH WARM LANDS OF SANTA ROSA AND MARK WEST CREEKS is growing finely.

GOPHERS.—The recent heavy rains have drowned millions of gophers.

WOODWARD'S GARDENS embrace an Aquarium, Museum, Art Gallery, Conservatories, Tropical Houses, Menagerie, Seal Ponds and Skating Rink.

IN SINGLE WRAPPERS.—Any subscriber who prefers it, can have this paper addressed in single wrappers.

Nurserymen.

Established 1853.

Stocks for Nurserymen.

Plum Seedlings, Mirobolan, the best French stock, does not sucker..... \$50 per 1000
 Apple Seedlings..... 10 per 1000
 Pear Seedlings..... 10 per 1000
 Cherry Seedlings, Mazzard..... 12 per 1000
 Cherry Seedlings, Mahaleb..... 20 per 1000
 Walnuts, English, 4 to 6 feet..... 15 per 100
 Cork Elm, best Elm, 4 to 6 feet..... 15 per 100
 Blue Gum or Eucalyptus, in variety..... 5 to 10 per 100
 Magnolia Grandiflora.....
 Magnolia Acuminata.....
 Magnolia Tripetala.....
 Golden Arborvitae.....
 Crataegus Arbutus.....
 Swedish Juniper.....
 Irish Juniper.....
 Heath-leaved Arborvitae.....
 Laurustinus, 6 to 12 in..... 2 50 per doz.
 Making the growth of Oranges and Lemons a specialty. I have imported from all sources the best known varieties, and now offer five thousand Grafted Trees properly worked and twice transplanted at \$18 per dozen. Grafted oranges by the 100 or 1,000 at prices on application. The amateur in want of large PALMS, large AURICARIAS, large CAMELIAS and large TREE FERNS, a good stock on hand; also the usual large stock of fruit and ornamental trees.

BERNARD S. FOX,
 San Jose, Cal.

THOS. MEHERIN, Agent, 516 Battery Street, San Francisco. 24v83m.

Fruit, Shade and Ornamental



Plants for Sale.

At the old stand, corner Oregon and Battery streets, directly opposite Post Office, San Francisco.

I NOW OFFER FOR SALE

The Largest and Best Collection of Fruit, Shade and Evergreen Trees and Plants ever offered in this market, and at Reduced Prices.

Persons laying out new grounds would do well to call and examine our stock before purchasing elsewhere.

ORDERS FROM THE COUNTRY

Promptly attended to and packed with great care. A large stock of Cypress, Pines and Blue Gums for sale very low. Send for Price Catalogue.

Agent for B. S. Fox's Nurseries, San Jose.

Address THOMAS MEHERIN,
 P. O. Box, 722, 516 Battery St., S. F.

SHINN'S NURSERIES,

NILES' JUNCTION,

Alameda County, - - California.

The attention of persons intending to set out Trees is requested to the well grown and large variety offered for sale by the undersigned at the above Nurseries. An examination of our stock will satisfy any one of the quality, being all that can be asked, and when the low prices we have fixed are taken into consideration, we believe we are offering the very best inducements for buyers to deal with us. For full particulars we refer to our circular for the approaching season, which will be sent, as requested, on application to either of the undersigned.

SHINN & CO.,
 Proprietors.

Address James Shinn, Niles, Alameda County, Cal., or, Dr. J. W. Olark, 418 California street, San Francisco, Cal. 8v17-4mo.

KING'S NURSERY,

Twenty-fifth St., bet. Telegraph & Broadway
 OAKLAND, CAL.

Fruit, Shade and Evergreen Trees, Shrubs, Roses, Etc. Persons laying out new grounds would do well to call and examine our stock before purchasing elsewhere. A large stock of EUCALYPTUS, including BLUE GUM Pines and CYPRESS from six inches to twelve feet high. Acacias in Variety; Young Stock for Nurserymen; Pines and Cypress; Three Thousand Magnolia Grandiflora from six inches to five feet high; Camelia Japonicas; Gardenia Cape Jasmine; Arancas in Variety, at Lowest Rates. Orders attended to. Address, M. KING, Nurseryman, 3v9-3m, Oakland, Cal.

PEPPER'S NURSERIES.

(Established in 1858.) PETALUMA, OAL.

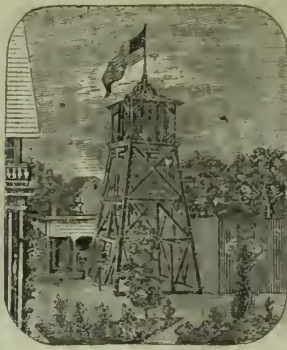
Green Houses and Tree Depot corner Washington and Liberty streets.

4 Green Houses. 3,000 feet of Glass. Fruit Trees a Specialty.

We offer for sale at lowest market rates a general assortment of Fruit and Shade trees, small Fruits, Vines etc. Evergreen trees and Shrubs in great variety. Green House, Conservatory and Bedding Plants, Roses, etc. We are now ready, Nov. 1st, to fill orders for trees and plants. Catalogue and price-list furnished on application.

Address, W. H. & G. B. PEPPER,
 19v8-tf Petaluma, Sonoma Co., Cal.

PEACHES, APRICOTS and PLUMS are specialties at the Vacaville Nursery, Solano County, Cal. Alexander's Early, Thurber and Peento in bud, 50 cents each. Beatrice, Louise, Rivers' Early, Lord Palmerston Lady Palmerston, Prince of Wales, Princess of Wales, Frequent's Late, Lady Parham, Italian Dwarf, Golden Dwarf, Bloodleaved and many other varieties of new Peaches in bud, at 25 cents each; Trees of Alexander's Early, \$1 each. Beatrice, Flouren, Freemason and a general assortment of the leading varieties, 25 cents each; Apricots, Plums, Apples, Pears, Cherries, Almonds, Figs, Olives, Pomegranates and including most of the leading varieties of fruit for sale at low prices. D. E. Mough, Vacaville, Solano Co., Cal.



Parties who have been troubled with Windmills blowing to pieces and getting out of repair should by all means examine the

DEXTER,

THE ONLY PERMANENT MILL IN EXISTENCE.

It runs with lighter wind than any other; regulates itself in a gale; and has never been known to be injured by storm, although it has stood for six years on the Plains of Kansas, Nebraska, Missouri, Iowa and Illinois, where no other mills have been known to stand any length of time. All we ask is a full investigation of the DEXTER.

DEXTER MILL CO.,

OFFICE-428 Sansome Street.....SAN FRANCISCO
 - 4v8-eow-3m MANUFACTORY, FOOT OF BROADWAY, OAKLAND.

TO FARMERS AND GARDENERS.

We have in stock a full line of Pruning Tools of the following celebrated makers:

SINGLE SHEARS—Dittmar's, Bergner's, Hilger's. DOUBLE SHEARS, OR LIMB

CUTTERS—McElhaney's, Red Jacket.

POLE PRUNING SHEARS, for high limbs, White's patent, mounted ready for use.

ENGLISH GARDEN AND LAWN SHEARS, POLE AND HAND PRUNING SAWS.

DITTMAR'S PRUNING KNIVES, &c.

DUNHAM, CARRIGAN, & CO.,

Successors to

Conroy, O'Connor & Co.,

San Francisco.

4v-96m-16p-eow.

The attention of Wool Growers is continually invited to the

Thoroughbred Stock Bred and Kept on the
 MERINO RANCH,

Situated at Niles, Alameda County, Cal., only five minutes walk from the station, junction of San Jose and C. P. R. R. Parties desiring to visit our ranch can leave San Francisco at 3 o'clock P. M., and have an hour at the ranch, returning on Overland train at 6 P. M. Or coming out in morning, can return to city at 11 o'clock A. M. The proprietors make the

THOROUGHbred SPANISH MERINO SHEEP A SPECIALTY,

Believing them to be the BEST SHEEP IN THE WORLD, and are constantly receiving fresh importations from Addison County, Vermont.

Our stock are all Imported Sheep, and have no superiors in the United States. We always have on hand choice young RAMS and EWES, of all ages, for sale at Reasonable Prices, giving time, if required, to responsible parties. City Office—315 California Street, San Francisco.

SEVERANCE & PEET,

Importers and Breeders of Spanish Merino Sheep.

10v7-eow

KELSEY'S NURSERIES,

OAKLAND, - - - CAL.

Established 1852.

More largely stocked this year than any previous year. Embracing all and every kind of

FRUIT, DECIDUOUS, ORNAMENTAL AND

FLOWERING TREES AND

PLANTS, ETC.

Send for Catalogue and Price List free on application.

W. F. KELSEY, Prop.

SUPERIOR FRUIT TREES

TRUE TO NAME.

A fine collection of Evergreen and Deciduous Trees. Australian Gum Trees in variety, by the hundred or thousand. Monterey Cypress in quantities and sizes to suit all. Orange and Lemon Trees at reduced prices. A general variety of Nursery stock. Also, Rhubarb and Asparagus roots.

T. CORLEY,

18v29-tf 315 Washington Street, S. F.

GRAPE VINES FOR SALE.

Roots and Cuttings of the best foreign varieties in lots to suit, at ten to twelve dollars for the former and three to five dollars for the latter. Thirty thousand roots W. Muscat, Alexandria, &c. Orders solicited early.

H. W. CRABE,

1v9-tf Oakville, Napa Co., Cal.

John Saul's Catalogue of New, Rare and Beautiful Plants for spring of 1875 will be ready in February, with colored plate. Free to all my customers. To others, 25 cents. A plain copy to all applicants free. Washington, D. C.

J. ROCK'S NURSERIES,

San Jose, California.

We offer this season a Complete Stock of

FRUIT AND ORNAMENTAL TREES,

SMALL FRUITS AND PLANTS.

The attention of Dealers, Nurserymen and Planters is invited to our Large Stock of Fruit Trees. All Leading Market Varieties are grown in large quantities. To all those purchasing largely we will make a Liberal Discount. Catalogues FREE on application.

23-v8-tf JOHN ROCK, San Jose, Cal



BAY NURSERIES

and Seed Store.

Established 1852.

P. O. Box 331.

OAKLAND, CAL.

An immense collection of Evergreen Trees, Shrubs and Flowering Plants, wholesale and retail. I invite inspection. Catalogues on application.

JAMES HUTCHISON, Prop.

ALMOND TREES.

35,000 Brier's Languedoc Almond Trees, one and two years old from the bud. This is the only Almond planted on a large scale, being hardy, late blooming, beautiful tree. It bears the second year from planting. The Almond is large and sweet with soft shell. Also, two year old Peach and English Walnut trees. Liberal terms to the trade and persons planting large orchards. Send orders to

W. W. BRIER,

21v8-3m Centerville, Alameda Co., Cal.

Thos. A. Garey's

Semi-Tropical Nurseries.

LOS ANGELOS, CAL.

Forty varieties of the Citrus family of semi-tropical trees, including many rare and beautiful, as well as useful and profitable kinds.

Grafted and Budded Orange Trees a specialty. Trees packed to arrive in good order. Priced Catalogue sent free. Address me P. O. Box, 628, Los Angeles city, Cal.

22v8-6m

THOS. A. GAREY.

Metropolitan Nurseries,

Lombard Street,

Between Polk & Larkin Streets, at the Terminus of the Clay Street Hill Railroad.

MILLER & SIEVERS, PROPRIETORS.

FLORAL AND SEED DEPOT,

NO. 27 POST STREET, San Francisco.

Our stock of plants, comprising a most selected collection of Flowering and Ornamental Plants for the garden and the conservatory.

ROSES, over 200 varieties.

PINKS, 100 varieties.

DAHLIAS, 60 varieties.

PALMS, 40 varieties.

FERNS, 100 varieties.

ORANGES & LEMONS,
 30 varieties

Our assortment of Flowering Bulbs is complete. Always on hand a choice and fresh lot of

TREE, SHRUB and FLOWER SEEDS.

CUT FLOWERS, BOUQUETS, FUNERAL WREATHS and FLORAL DECORATIONS furnished at short notice and on reasonable terms.

Orders from any part of the country promptly filled.

Eucalyptus globules, (Blue Gum) seed, fresh invoice \$15.00 per pound.

New catalogue now ready, gratis on application.

F. LUDEMANN.

RUD. MICHELSEN.

PACIFIC NURSERY,

Baker St., Between Lombard and Chestnut,
 San Francisco, Cal.

P. O. Box 475.

We offer this Season a Large and Complete Selection of Well Grown

EVERGREEN AND DECIDUOUS TREES AND SHRUBS, FLOWERING AND ORNAMENTAL PLANTS

At very reasonable Prices. Our Descriptive Catalogue of Evergreens and Deciduous Trees and Shrubs, and our Wholesale Trade List (For Dealers and Nurserymen) will be sent on application. All Orders promptly filled.

F. LUDEMANN & CO.

BELLEVUE NURSERY,

Telegraph Avenue, Oakland.

WE OFFER FOR SALE THE PRESENT SEASON'S LARGE ASSORTMENT OF

Ornamental Trees and Shrubs

OF BEST TRIED VARIETIES.

Many fine specimens of good size can be seen on the grounds to select from. Choice collections (true to name) put up for those starting a garden. Street cars pass every fifteen minutes.

3v9-tf

S. NOLAN.

THE ALDEN

Fruit Preserving Company
 OF CALIFORNIA.

Is now prepared to sell rights and furnish the necessary machinery for using the "ALDEN PROCESS," acknowledged to be the best method known for preserving Fruits, Vegetables, Meats, etc.

For full particulars call at the company's

Office, 426 Montgomery St., S. F.

G. W. DEITZLER, President.
 W. M. WHERRY, Vice-President.
 FRANK PYLE, Sec'y and Supt.
 BANK OF CALIFORNIA, Treasurer.

11v7-6m

PACIFIC OIL AND LEAD WORKS,

SAN FRANCISCO,

Manufacturers of

Linseed and Castor Oils,
 OIL Cakes and MEAL.

Highest price paid for Flax Seed and Castor Beans delivered at our works.
 Office, 3 and 5 Front street.
 Works, King street, bet. Second and Third. 1e5-eow

SANTA BARBARA COLLEGE,

SANTA BARBARA, CAL.

A Boarding School for Boys and Girls, offering all the advantages of a thorough modern education. French, German, Spanish, Latin, Greek, Drawing, the Natural Sciences, Gymnastics and Dancing taught without extra charge. Vocal and Instrumental Music receive particular attention. Pupils furnish only a pair of heavy blankets. Next term opens January 6th, 1875.

Write for Catalogue to ELWOOD COOPER,

President Board of Directors.

Brittan, Holbrook & Co., Importers of Stoves and Metals, Tinners' Goods, Tools and Machines, 111 and 113 California, 17 and 19 Davis streets, San Francisco, and 178 J street, Sacramento

Seedsman.

1875. Established 1857. 1875.

Capital Nursery and Seed House

W. R. STRONG and ROBERT WILLIAMSON, Proprietors, having united their interests in the Seed and Tree business, offer to the public the largest and finest growth of both Seeds and Trees ever offered to the California public, of their own production, and also from the largest and most reliable houses of the Eastern States and Europe, all of which we offer as low as Eastern Dealers.

TREES. TREES. TREES.

Fruit, Shade, Ornamental, Evergreen, etc., raised in our Nurseries of the very best varieties. Dealers and Growers furnished at very lowest rates. Among our numerous varieties we call especial attention to BRIGGS' RED MAY PEACH, the earliest known, large, handsome of excellent flavor and good shipper.

SEEDS. SEEDS. SEEDS.

Vegetable, Flower, Field and Tree Seeds, and Flowering Bulbs and Plants.

100,000 pounds Finest Quality California ALFALFA, RED and WHITE CLOVER, KENTUCKY BLUE GRASS, RYE GRASS, ORCHARD GRASS, VERNAL GRASS, MESQUIT GRASS, TIMOTHY, RED-TOP GRASS, and every other Grass adapted to the Pacific States and Territories.

All the finer qualities of our Seeds will be forwarded by mail (post-paid) to customers at Catalogue rates, on receipt of money, which can be sent by postal orders or registered letters, or express, at our risk.

CATALOGUES AND PRICE LISTS on application, and forwarded by mail.

WAREHOUSE, 8 and 10 J street. NURSERIES, U street, SACRAMENTO CITY. TREE YARD, I street, next to Library Building.

W. R. STRONG.

SEEDS. SEEDS.

Encourage home industry and make a saving of at least 30 per cent.

If you want Seed that you can depend upon as to variety and freshness, why not send your orders direct to the grower and make a saving of at least thirty per cent. on the prices of other seedsmen. Send for catalogue, free, post-paid, and compare with prices of other dealers. Just received,

Grasses, Clover, Alfalfa and Field Seeds, Fruit and Evergreen Trees, Shrubs, Flowering Shrubs, and Green-house Plants. Cabbage, Onion and Cauliflower Plants.

Large assortment of Bulbs from Holland. Address all orders or letters of inquiry, to

SEVIN VINCENT,

607 Sansome street, San Francisco, Cal

22v8-3m



My annual catalogue of Vegetable and Flower Seed for 1875, will be ready by Jan. 1st for all who apply. Customers of last season need not write for it. In it will be found several valuable varieties of new vegetables introduced for the first time this season, having made new vegetables a specialty for many years. Growing over a hundred and fifty varieties on my several farms, I would particularly invite the patronage of market gardeners and all others who are especially desirous to have their seed pure and fresh, and of the very best strain. All seed sent out from my establishment are covered by three warrants as given in my catalogue.

JAMES J. H. GREGORY, Marblehead, Mass

Fresh Osage Orange Seed

At One Dollar per pound, will be forwarded by mail in one pound packages on receipt of the price. Address,

DR. STRENTZEL,

Martinez, Contra Costa Co., Cal.

SANTA CLARA.

For Bleaching or Washing

In Cold or Warm Water.

FALKINBURGH & CO'S

GRANGER SOAP

HAS NO EQUAL.

Don't fail to give it a trial, and be assured of a saving of money, time and labor. It speaks for itself. Warranted to accomplish more and do greater execution than any other soap. It is pressed, wrapped and perfumed.

ONCE USED, ALWAYS USED.

Sold by the principal Grocers throughout the country. Manufactured by

FALKINBURGH & CO.,

Oregon St., below Front, bet. Washington and Jackson, San Francisco, Cal. 4v9-10p

THE CLEETON COOP COMPANY,

Of New Haven, Conn.,

Are now prepared to furnish societies and individuals with

Standard Exhibition Coops

At Reasonable Rates.

Correspondence Solicited.

Agricultural Articles.

J. WAGNER,

MANUFACTURER OF

FRENCH BURR MILL STONES AND PORTABLE MILLS.



General Mill Furnishing. Portable Mills specially adapted for Farmers' use, 113 and 115 Mission street, San Francisco. 13v7-3m-2am

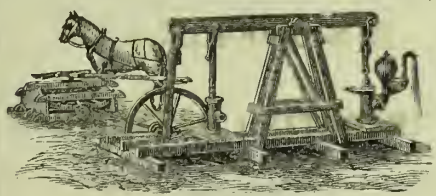
VINE AND FRUIT GROWERS,

TO RAISE LARGE CROPS

YOU MUST IRRIGATE.

To irrigate successfully, you must have the power that does not give out when the wind fails.

Laufkotter Bros. & Churchman's Horse-Power,



[PATENTED FEBRUARY 13TH, 1872.]

Never fails to supply more water than four or five Windmills, even supposing you had all the wind you want. It is also suitable for running light machinery, such as Barley Crackers, Corn Shellers, Fanning Mills, Grain Separators, or for Sawing Wood. They are never failing, cannot get out of order, easily worked, substantial, and always give satisfaction wherever they have been used. One horse can easily work two 6-inch pumps, with a continuous flow of water. Force Pumps, from 3,000 to 10,000 gallons per hour. WINDMILLS of all kinds manufactured to order. Wells Bored, Windmills and Horse-Powers set in any part of the State, and repairing of all kinds done. Manufactured and for sale by

LAUFKOTTER BROS.,

v7-2m-3m

Cor. J and 10th Sts., Sacramento.

MATTESON & WILLIAMSON'S



Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m

MATTESON & WILLIAMSON,

Stockton, Cal.

THE TREADWELL SULKY



GANG PLOW.

Improved for 1874, with BLACK HAWK Plow Bottoms, is the best GANG PLOW in the world. It is Simple, Strong and Durable, and does its work effectually. Has high wheels, running both on unplowed land; iron axle, wrought iron beams, and is built nearly all of iron and steel. No farmer should neglect to see it before buying. Send for descriptive circular and price. We have also the "VICTOR GANG," with hard wood beams and heavy cast iron standards; price, \$75. Also the "GOLDEN STATE GANG," with all iron beams; price \$75. "PIEL'S GANG," Improved; price \$50; old style, \$25. The largest and best stock of Plows, Harrows, Cultivators, Grain Drills, Seed Sowers, Farm Wagons, etc., in the country.

TREADWELL & CO.,

18v8-tf

San Francisco

Notice—To Tule Land Owners.

I am manufacturing a Gang Plow specially adapted to ploughing Tule Lands. Address

Vallejo Foundry, J. L. Heald, Prop.,

18v29-3m

VALLEJO, CAL

O. OREGO.

S. O. BOWLEY.

CREGO & BOWLEY,

Importers and Manufacturers

—OF—

CARRIAGES and WAGONS,

No. 9 Merchant's Exchange,

CALIFORNIA STREET.....SAN FRANCISCO

Keep constantly on hand top and open Buggies, top and open Rockaways, Jump-seat Buggies, Track and Road Sulkies, Skeleton Wagons, Basket Phaetons of the very latest styles and finest workmanship.

We would call particular attention to our fine stock of Light Road and Trotting Wagons, made to order by the following celebrated makers:

Charles S. Coffey, Camden, New Jersey; Helfield & Jackson, Rahway, New Jersey; Gregg & Bow, Wilmington, Delaware; And the first-class makers, which we are prepared to sell on the most reasonable terms.

Also, a large assortment of single and double Harness, of the most celebrated makers: C. Graham, New York; J. R. Hill, Concord; Pitkin & Thomas, Philadelphia.

Also, a full assortment of Dress and Light Blankets, Fur and Lap Robes, Whips, Halters, Surcingle, etc., at wholesale and retail.

OREGO & BOWLEY,

No. 9 Merchants' Exchange, California street, 24v5-3m San Francisco.

Farmers and Threshers

WISHING TO HAVE

Straw Burning Engines

For next season must engage them soon, as most of those now building are already sold. Threshing Engines for Repairs should be sent in now. A number of second-hand Engines—taken in exchange for "Straw Burners"—for sale cheap. For particulars and prices, address:

H. W. RICE,

23v8-3m

Haywood, Alameda County.

Allen's Planet Jr. Silver Medal

HAND DRILLS and WHEEL HOOKS. THREE NEW styles. They "sow like a charm," and hoe better, easier, and six times faster than the hand hoe. S. L. ALLEN & CO., Mfrs. 119 S. 4th St., Phila., Pa. Circulars free. A LIVE AGENT WANTED in every town.

Commission Merchants.

STUART & ELDER,

WHOLESALE

COMMISSION MERCHANTS

FOR THE SALE OF

California Dairy Produce,

GRAIN & QUICKSILVER,

204 Front Street, San Francisco.

AGENTS FOR THE

Missouri,

Kentuck,

Ida Clayton

and Yellow Jacket

Quicksilver Mines.

All orders for Supplies and Machinery for Mines promptly attended to.

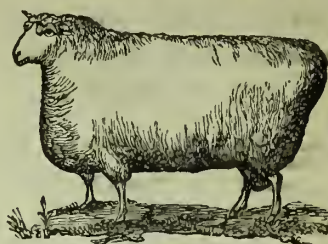
RETORTS, POWDER and MINERS' TOOLS

Supplied at Importers' Prices.

3v9-cow-bp

Davis & Sutton, Commission Merchants, For California Fruits; also for the sale of Butter, Eggs Cheese, Hops, Green and Dried Fruits, etc., 75 Warren street, New York. Refer to Anthony Halsey, Cashier, Tradesmen's National Bank, N. Y.; Ellwanger & Barry, Rochester, N. Y.; O. W. Reed, Sacramento, Cal.; A. Lusk & Co., Pacific Fruit Market, San Francisco, Cal.

B. W. OWENS, San Francisco, | E. MOORE, Stockton, Cal



OWENS & MOORE,

COMMISSION MERCHANTS,

DEALERS IN

WOOL, HIDES, PELTS AND GRAIN.

Office—405 Front street, S. F.

14v7-3m

H. K. CUMMINGS,

1858.

H. E. RALSTON,

1875.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission House,

ESTABLISHED 1858.

No. 424 Battery street, southeast corner of Washington, San Francisco.

Our business being exclusively Commission, we have no interests that will conflict with those of the producer. 4v23-1v

Miscellaneous Notices.

POISON! POISON

WAKELEE'S PATENTED

Granulated Squirrel Exterminator.

A NEW AND MOST DESTRUCTIVE POISON FOR THE WORST PEST OF CALIFORNIA.

For years the farmers of the Pacific Coast have been spending money in experimenting to find a safe, cheap and efficient way of ridding their grain fields of their worst enemy, THE SQUIRRELS, which destroy Millions of Dollars' worth of grain every year; and unless a strong and combined effort is made to kill them off, they will become more numerous every year.

Wakelee's Granulated Squirrel Exterminator

Is just the thing the farmers of California have been looking for. It is SURE DEATH. One or two grains of it will kill a Squirrel so quick that if it is five feet from his hole it dies before it gets there. The Poison is put up dry and in granular form, and easily handled; in one pound tins at \$1 per pound. It goes a great way, as 10 to 15 grains of it are sufficient to place at each hole. Also successfully used for killing Gophers and rats. It has been thoroughly tested in different parts of the country, and gave universal satisfaction. It is kept and sold by druggists and dealers generally through the country. The following are some of my testimonials, viz:

H. P. WAKELEE, Esq.—Your Squirrel Exterminator was used according to your directions, on my *Quito Farm* with excellent success, and in my estimation is just the thing the farmers want to kill their Squirrels. J. R. ARGUELLO.

SAN LEANDRO, Cal., April 3d, 1874. H. P. WAKELEE, Esq.—Dear Sir: I have given your Squirrel Exterminator a fair trial and find it to be an economical and very destructive preparation, and I can safely recommend it to our farmers. Yours, J. M. ESTUDILLO.

DOUGHERTY STATION, Alameda Co., Cal. Mr. H. P. WAKELEE, San Francisco: I have used your Squirrel Poison and found it to be just what you claim for it. It is sure death. Yours, O. M. DOUGHERTY.

H. P. WAKELEE, Druggist, Cor. Montgomery and Bush streets, S. F.

Hooper's South End Grain Warehouse.

Japan and Townsend Streets.

SAN FRANCISCO, July, 1874. I beg to inform you I have leased the above first-class Fire-Proof Brick Warehouse, now being erected by Geo. F. Hooper, Esq., and will be ready to receive storage on the 1st of August. This warehouse offers superior inducements to parties desiring to store grain and flour, as it is situated on the Water Front, and on the line of the O. P. R. R., and S. P. R. R. It is well ventilated, rat proof, and combines all the modern advantages and improvements. Yours respectfully, JOHN JENNINGS.

Advances and insurance effected at the lowest rates. Storage taken at lowest current rates. 4v8-ft

HOP ROOTS FOR SALE.

I have a lot of choice HOP ROOTS, and also healthy BLACKBERRY SETS for sale at LOWEST RATES. Orders may be addressed through DEWEY & Co., of the Rural Press, San Francisco; ROBT. WILLIAMSON, Capital Nurseries, Sacramento; or to me,

CALVERT T. BIRD,

24v8-3m

San Jose, Cal.

BELLA UNION HOTEL,

JOHN F. MILLER, Prop.,

SAN BERNARDINO, CAL.

This fine hotel is situated in one of the best parts of the city, and the proprietor will at all times use his best endeavors to promote the comfort of his guests.

AMERICAN SWEET CHESTNUT TREES.

Thirty Thousand American Sweet Chestnut Trees for sale cheap, in lots to suit, at Room 32 Merchants' Exchange, San Francisco, where samples may be seen. The trees are two years old, and in primo order. Will be delivered either in this city, Oakland or Sacramento. These trees are valuable for nuts, timber, shade trees or lawn trees; and are preferred by many to any of the foreign varieties. tf

COMPTON & BINFORD,

REAL ESTATE BROKERS

Employment and Intelligence Office. Horse and buggy free to see property. Offices at Compton, and at corner of Court and Spring streets, Los Angeles, Cal.

Union Box Factory,**GEO. W. SWAN & CO.,**115 and 116 Spear St., bet. Mission & Howard
SAN FRANCISCO.Apple, Pear, Plum, Peach, Cherry, Grape,
Orange, Lime and Wine Cases.

Tomato, Potato, Fig and Raisin Boxes.

Strawberry, Raspberry and Blackberry Chests
and Drawers, and Baskets for all kinds of Berries.Peach and Pickling Baskets, Butter Chests and
Boxes, Cheese Boxes, Square and Round Egg Carriers.Drums for Figs, Cherries, Raisins, and for
other Dried Fruits.Free Packages—Boxes not to be returned—a
good article, costing less than Sawed Boxes.

Lard Caddies, Coffee and Fruit Caddies.

Turkey and Chicken Coops, Bee-Hives, Etc.

Packing Boxes for Dry Goods, Cigars, Can-
dies, Canned Fruits, Honey, Macaroni, Crackers,
Sugar, Soap, Boots, Etc.In fact, every style of Boxes manufactured in
the Union, and turned out in the Best Style at Favor-
able Prices. Orders from the country well attended to.**AMMONIA!**

For Washing and Cleaning Purposes.

For Sale by all Grocers.

This article is universally used in Europe, and, recently
introduced for general family use in San Francisco and
neighborhood, is already in great demand. It is now the
intention of the manufacturers to introduce it all over the
Pacific Coast, at prices which will bring it within the reach
of every household.It is unequalled for cleansing Woolen Fabrics, Cutlery,
Carpet or Crockery: for Scrubbing Floors, Washing Paint,
Removing Grease Spots, Shampooing or Bathing.It renders water soft, and imparts a delightful sense of
coolness after washing.DIRECTIONS.—For Laundry, use two to four table-
spoonfuls to a wash-tub of water. For bathing, use one
tablespoonful in the bath tub. For removing grease spots,
apply with a brush, undiluted, and wash with water after-
ward. For stimulating the growth of plants, use a few
drops in every pint of water used in watering.PRICE.—Per Pint Bottle, 25 cents; per quart Quart Bot-
tle, 40 cents; per Half Gallon, 75 cents.Also, SULPHATE OF AMMONIA for chemical pur-
poses, fertilizing, and the preparation of artificial manures.
AMMONIACAL PREPARATION, for the prevention and
removal of boiler scale. CRUDE AMMONIA, for general
manufacturing, and PURE LIQUOR and AQUA AMMO-
NIA for chemical and pharmaceutical purposes.Manufactured by the
SAN FRANCISCO GAS-LIGHT CO.
cowbp

J. M. NEVILLE.

G. H. BRYANT

NEVILLE & CO'S FACTORY

113 Clay and 114 Commercial Sts.,

SAN FRANCISCO.

BAGS of All Kinds,**TENTS**, All Sizes and Descriptions.**HOSE** for Hydraulic U-e.**CANVAS**, All Numbers.**TWINE** for Sewing, Etc.**EMPIRE PARLOR MATCHES.**We have imported the requisite Machinery and Chemi-
cals to add to our previous assortment of Matches the
celebrated Parlor Match, deservedly popular among fami-
lies and smokers, on account of brilliant burning qualities,
and absence of smell or odor. Manufactured from the
best sugar pine, a wood superior to any other, and found
only upon the Pacific Coast. They are full count, and
without objection of any kind. Packed in boxes of most
desirable style. Bristle and safety Matches of superior
quality manufactured, and are guaranteed to give entire
satisfaction. Encourage Home Industry, and get superior
goods at less cost than the imported article.
Ask your grocer for the EMPIRE PARLOR MATCHES,
and be sure you get no others. For Sale by all Gro-
cers.**B. BENDEL & CO.,**

MANUFACTURERS, 318 FRONT STREET.

FACTORY—Corner Eleventh and Harrison streets, S. F.
feb-cow**SANBORN & BYRNES,**

Mechanics' Mills, Mission Street,

Bet. First and Fremont, San Francisco. Orders from
the country promptly attended to. All kinds of Stair
Material furnished to order. Wood and Ivory Turn-
ers, Billiard Balls and Ten Pins, Fancy Jewels and
Balusters. 25v8-8m-bp**MOON'S "BEE WORLD,"**Published at Rome, Georgia, is the only publication
of its kind in the South. It is devoted exclusively to
BEE CULTUREand should be in the hands of every Bee-keeper in the
United States, \$2.00 per year. Send for Sample
Copy. Address,**A. F. MOON & CO., Rome, Ga.****NEW CROP OF****BLUE GUM SEED.****GRASS AND
CLOVER****SEEDS.****FLOWER AND
VEGETABLE****SEEDS.****TREE AND
FRUIT****SEEDS.**OF EVERY DESIRABLE VARIETY AND OF THE
BEST QUALITY; OFFERED AT WHOLE-
SALE OR RETAIL, BY**GEO. F. SILVESTER,
SEEDSMAN,**

No. 317 Washington Street,

24v8 tf SAN FRANCISCO

CC Burr & Co's**Mustard**50 per cent. Better than any
Imported Mustard.

Ask Your Grocer for it.

9v5-cowbp.

M. FALLON,

Cor. Seventh & Oak sts.,

OAKLAND, CAL.

Light & Dark Brahmas,
Buff, White and Par-
tridge Cochins,
Spangled, Golden and Silver Polish,
Spangled, Golden and Silver Hamburgs,
Pure White-faced Black Spanish,
White and Brown Leghorns,
Silver Grey Dorkings,
Houdans, Silkies, Black Red Games,
Bronze Turkeys, Rouen and Aylesbury Ducks.

All from Premium Stock of Best Strains.

Fowls of above varieties for sale; also, Chicks in their
season. Eggs packed with care and sent in rotation as
orders are received. 1v9-16p-tf**HEALD'S****BUSINESS COLLEGE,**

No. 24 Post Street, San Francisco.

The largest and best Business College in America.
Its teachers are competent and experienced. Its pupils
are from the best class of young men in the State.
It is under the very best discipline. Its scholarships
are good in the THIRTY-SIX Bryant & Stratton Colleges.
It employs four of the best penmen in the State. It has
the largest rooms, the largest attendance, and the most
complete system of business training of any commer-
cial school in the country.
For information, call at the office, 24 Post street, or
address, for circulars,**E. P. HEALD,**

President Business College, San Francisco.

3v9-16-tf

SEEDS.**PLANTS.**

OF EVERY VARIETY.

Fresh and reliable, such as experience and care only
can select.GRASS AND CLOVER SEEDS, KENTUCKY BLUE
GRASS, HUNGARIAN, ORCHARD, ITALIAN RYE,
RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL,
CHOICE CALIFORNIA ALFALFA, WHITE CLOVER,
RED CLOVER, Etc.Also, RAMIE, JUTE AND TOBACCO SEEDS; to-
gether with a fine and complete collection of TREE
SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGAN-
TEA, PINUS INSIGNIS, Etc.

For Sale, wholesale or retail, by

B. F. WELLINGTON,

(Successor to E. E. Moore).

425 Washington St., San Francisco. 22v7-1y

TRUCKEE, CAL., July 10, 1874.

Messrs. DEWEY & Co.—Gentlemen: My patent is just
received, and is entirely satisfactory. Permit me to
tender you my sincerest thanks for the care and atten-
tion, the promptness and interest you have displayed
in managing my affairs. Gratefully yours
O. F. MCGILVER.**Improve Your Poultry,**IT COSTS NO MORE TO KEEP GOOD FOWLS
THAN POOR ONES!**OAKLAND POULTRY YARDS,**

Cor. 16th and Castro streets, Oakland, Cal.

**WHITE LEGHORNS.**Called THE POOR MAN'S FOWL. Eggs, \$6 per doz;
Fowls, \$20 to \$30 per trio; Single Cocks, \$10. A new
importation of J. Boardman Smith & Pitkin's celebrated
strains just received. Stock guaranteed perfect in
markings—white ear lobes, etc. No inferior stock sold
at the Oakland Poultry Yards for any money.For further information send stamp for illustrated
Circular, containing a full description of all the best
known and most profitable fowls in the country, to**GEO. B. BAYLEY,**

Importer and Breeder of Blooded Fowls.

Box 659, San Francisco.

Purity of all Stock and Eggs sold absolutely guaranteed.

J. D. Yost, San Francisco.

H. S. CROCKER, Sacramento

H. S. CROCKER & CO.,**IMPORTING STATIONERS**

—AND—

General Job Printers.

401 and 403 Sansome St., S. F.

PARTICULAR ATTENTION PAID TO

Manufacture of Blank Books.**BANK AND INSURANCE WORK**

A SPECIALTY.

23v8-3m-16p

1852.

1875.

ESTABLISHED IN 1852.

THE STOCKTON NURSERYI have for sale for the ensuing season a Large and Well
Grown Stock of All Varieties of**FRUIT TREES,
SHADE,****ORNAMENTAL**

and

EVERGREEN TREES.

GREENHOUSE PLANTS, AUSTRALIAN GUMS,

SHRUBS, ROSES, BULBS, PALMS.

Send for Catalogue.

W. B. WEST, Stockton, Cal.

Bronze Turkeys

12 Gobblers from 8

to 20 months old,

22 to 40 lbs each,

for sale now.

Hens 14 to

18 lbs.

Games, Brahmas, Leghorns, Houdans, Ban-

tams, etc.

Eggs, fresh, pure, true to name; well-

packed so as to hatch after arrival.

For Illustrated Circular and Price-List, address

M. EYRE, Napa, Cal.

FERRETS.

RABBITS.

PIGEONS.

Please state where you saw this advertisement.

1874. GUIDE AND CATALOGUE 1875.**FREE.**To persons contemplating purchasing I will send
my ILLUSTRATED, DESCRIPTIVE CATALOGUE and GUIDE
to the VEGETABLE and FLOWER GARDEN WITHOUT
CHARGE. It contains the most extensive and valuable
list ofFlowering Bulbs, Roots and Plants, Semi-
Tropical Trees, Ornamental Shrubs, Fruit
and Shade Trees, etc., ever offered in this market.
It tells how to successfully grow the Australian
Blue Gum, the Monterey Cypress, Pine,
etc., and the proper method of Cultivating To-
bacco on this Coast.My stock of seeds is in part my own raising
and in part direct importations from the best Euro-
pean and Eastern growers, and is unsurpassed in all
respects by that offered by any other establishment.
100,000 Australian Blue Gums and Mon-
terey Cypress in boxes at from \$30 to \$50 per
1,000, raised at my own Nursery at San Rafael.**R. J. TRUMBULL,**Grower, Importer, Wholesale and Retail Dealer in
Seeds, Shrubs, Trees, etc.

20v8-6m-16p

427 Sansome street, S. F.

KIMBALL CAR, CARRIAGE

—AND—

AGRICULTURAL IMPLEMENT

MANUFACTURING CO.,

Cor. Bryant and Fourth Sts., San Francisco.

The CALIFORNIA TUBULAR IRON AND WOOD
FRAME HARROW—two, four and six-horse Iron Har-
rows, \$60, \$70 and \$75. Wood Frame Harrow, \$10 less
on each size than the Iron.The Harrow has an easy seat for the Driver. The
middle section rests on three wheels with wings hinged
on each side.By use of Levers the Driver in his seat can raise or
lower the Harrow, regulating at will the depth of the
teeth in the soil, and in the same manner fold or raise
the wings from the ground so as to drive from the road
to the field, saving the use of a wagon.Our CALIFORNIA SCRAPER is also made for the
ease of the Driver, enabling one person to ride, manage
the team and do the work.Is adapted for leveling and preparing the surface of
the soil for irrigation. And for making roads, remov-
ing dirt from ditches, cleaning barn yards, sheep corals,
etc.The IMPROVED EAGLE HAY PRESS—Best in use
on this Coast. Cheap, Economical, Powerful, and easily
repaired.Will press bales weighing from 250 to 325 pounds,
using less rope than any other press.Three men with a good team of horses will bale from
10 to 15 tons per day.Adapted for baling wool, hides, cotton, rags or moss.
Price, \$250. Weight of press, 2,500 pounds. Please
send for circulars.**ARMES & DALLAM,**

WHOLESALE DEALERS IN

WOOD AND WILLOW WARE

Baskets, Brushes and Twines,

Clothes Wringers,

Doty's Washing Machines,

AND

GENERAL HOUSE FURNISHING GOODS

And Manufacturers of

BROOMS, PAILS, TUBS, WASHBOARDS,

DASH,

CYLINDER,

THERMOMETER,

AND SQUARE BOX

CHURNS,

215 and 217 Sacramento St., San Francisco.

J. Y. WILSON. WM. FAULL W. L. MERRY

WILSON, MERRY & CO.,

Provision Packers

And Dealers in

SALTED AND SMOKED MEATS.

Lard, Etc.

PROP'S BLACK POINT PACKING HOUSEWe respectfully call the attention of Farmers and
Stock Raisers to the fact that we are always pre-
pared to purchase hogs, cattle and sheep at
full market prices, for Cash, and shall be
glad to answer promptly any in-
quiries addressed to us on
the condition of the
Market.

Office No. 223 Sacramento St., Near Front,

San Francisco.



Volume IX.]

SAN FRANCISCO, SATURDAY, FEBRUARY 13, 1875.

[Number 7.]

Two Crops in One Season.

Enquiries are frequently received by us in regard to the practicability of raising two crops in one season in California. In answer to these we would say, that on land here that can be irrigated, two crops can be relied on if worked under the following system:

Commence plowing in November, and continue to plow and sow small grains until about the 15th of March. In ordinary seasons all that was sown before the 1st of February will mature without irrigation. In very dry seasons it may want one watering, while the late sown grain may possibly need two waterings.

This crop of small grain can be harvested in June; and by wetting the land and then plowing, another crop can be raised of almost anything that grows. Some of the largest crops of corn that we have ever known—not excepting those of the Wabash bottom of Indiana—have been of these second crops.

These same lands may now be sown in alfalfa, and will carry from twenty to twenty-three sheep per acre a year. This should be fenced off in separate fields, to enable the owner to cut one crop of hay, and this hay can be fed out in December and January, as we sometimes have severe frosts at this season that retard the growth of grasses and thus necessitate feeding. These fields of alfalfa, when unfed, will produce five crops a year; affording a heavier yield than is obtained from any other grass.

The profits per acre from land thus managed have been summed up as follows, by parties who have given the subject proper consideration: Take 20 sheep for the acre, the increase from which we may safely put at 20 lambs, which, at \$1.50 each, we have \$30. We may, however, sell them at much higher prices. The wool from this flock we can safely count at \$30 more. We thus have \$60 produced from one acre of land in one year.

Cattle pastured on these grasses get very fat. They should, however, be fed on hay during the season when the growth of grass is checked by frosts; that is if they are designed for beef. They thus become equal to the stall-fed cattle of the Eastern States.

Lands to which the above system is applicable are now selling at prices ranging from \$15, to \$50 and \$75 per acre.

The Increase of Improved Stock.

One of the most hopeful signs of the permanent improvement of California agriculture, is the unmistakable evidence of the rapid and steady increase of choice stock. The importations have been large and will probably compare favorably with those of any other State, according to the number of farmers, and when to this is added the increase by birth of thoroughbreds and grades, we can show an improvement in our farm stock which is of great value even at present, and which forms the basis of a future standard which will be inestimable.

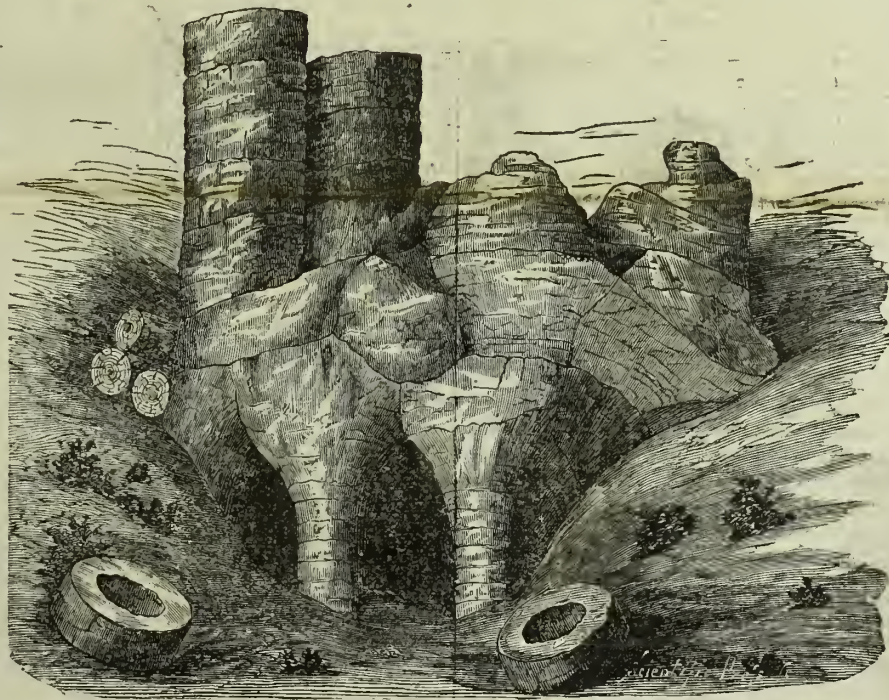
The representatives of the choice stock of California, as exhibited at our fairs, has been highly praised by stock men from other States, and some of these have visited the celebrated herds of our State, and have expressed extreme satisfaction at the material composing them. The pride which the owners of these herds feel in their stock, is highly commendable. Jessie D. Carr, now sole proprietor of the famous Gabilan herd, writes us as follows in regard to his present stock at Gabilan, Monterey county:

"I have purchased this season over 300 fine Spanish Merino Ewes and Bucks, and intend hereafter to be able to sell as good Bucks as any breeder in the State. I also have graded Merino Bucks for sale. I think I have the best herd of cattle, on the Pacific Coast, as good a breed of Trotting Horses and as fine a breed of Spanish Merino Sheep, as is in this State or on this Coast."

FLOWERS FROM ARROYA GRANDE.—Some kind friend sends us a very pretty bouquet of pressed curly, wild flowers from Arroya Grande, San Luis Obispo county. We shall keep the bouquet, and shall only regret that we have not the name of the sender to preserve with it.

The Santa Cruz "Ruins."

About six miles east of Santa Cruz, and well up into the mountains, there are found some very singular samples of weather-worn sandstone, which from their remarkable resemblance to architectural remains have been designated as "The Santa Cruz Ruins," or the "Ruined City." The illustration given herewith presents a very correct representation of them, as they appear when two or three feet of the surface sand is removed from the front. The "ruins" are found on a steep hillside of loose sand, almost entirely destitute of vegetation. The distance from the lowest portion of the pillars which support the arches, as shown, to the top of the highest column on the left is about twelve feet. A person can readily place



THE "RUINS" NEAR SANTA CRUZ, CAL.

himself in the opening behind the columns, but farther progress is cut off by the sand which has fallen down and appears to envelop other pillars beyond. The pillars, are made up of concentric layers of stone, easily separated, and which are perforated through the center as shown in the two pieces which have fallen down. When first brought to the attention of travelers, some twenty-five years ago, there were columns of concentric layers upon the right hand side, similar to those upon the left, but being less firm in position they have been thrown down and mostly carried off by curiosity hunters.

There is no doubt but that other deposits, or concretions, exist in other positions, further up the hill, but now buried in the loose sand, as detached pieces are met with at an elevation of many feet above the locality shown, which of course must have come from still further above.

Many persons have supposed that these are genuine architectural ruins, and an effort was made some five or six years ago to remove the sand from around them so as to lay open to view the base of the supposed pillars; but the sand flowed in about as fast as it could be removed, and the attempt was given up. These singular rocks are no doubt, the remains of an ancient spring whose waters contained feruginous or other solutions, which have served to so indurate the sandstone in immediate contact with the water flow, so as to admit of its withstanding the disintegrating action of the elements, which has gradually worn away the surround-

ing rock, and converted it into a loose sand, much like beach sand. By such action a pile of rocks would naturally be left standing just as shown, to be gradually broken down and worn away, as are other rocks of not very firm cohesion. The country rock is chiefly sandstone, interstratified here and there with slates.

A small stream of water flows along, some three hundred feet in front and sixty or seventy feet below the spot shown; while a much larger one skirts the opposite side of the hill, into which the smaller one empties a short distance to the west of the base of the hill. The action of these two streams, aided by the winter rains is gradually washing away this sand hill, and will in time, no doubt, completely unearth all that remains of these singular concretions.

Several very inaccurate views of these "ruins" have been given. One of which appeared in Frank Leslie's paper of June, 1858, which represents a stream of water as issuing out from beneath the arches shown in our illus-

Placer County.

The grain crops in this county are looking admirably. Nearly all the grain growing about Lincoln, Roseville and Rocklin is on summer fallowed land, and is quite forward. S. A. Boutwell, of Roseville, is having a considerable tract broken up this year, of land until within a few years considered snitable only for sheep.

It is stated that the Norris grant, of 44,000 acres on the river, so long occupied as a sheep ranch, is to be cut up and sold to immigrants. This will be an advantage to Sacramento and the surrounding country. On the ranch of J. P. Whitney, between Rocklin and Lincoln, there are over 4,000 acres under cultivation, and Mr. Whitney has leased out about 2,000 additional acres to be summer-fallowed this year. He is also planting out 20,000 one and two year old Muscat of Alexandria vines, besides 30,000 cuttings. He contemplates putting out 150,000 additional cuttings next year, and is intending to go actively into the raisin business.

Rocklin is growing quite rapidly, from the stimulating influences of the stone quarries.

At Lincoln, Wilson's coal mine is producing steadily, and experimental borings in the vicinity show numerous deposits.

Are Raisins a Drug in the Market.

If the producer of raisins was to send a portion of his product to San Francisco, he would undoubtedly be told at once that raisins are a drug in this market; but if a person was in want of a small quantity of this article—as we were a few days since—he would be assured as we were in some of the most popular establishments in this city, that raisins are *very high*, and that none fit for cooking even could be sold less than twenty cents per pound. These were loose raisins; small, poorly cured, with an excess of stem and other waste material, such as our producers would be probably willing to sell at five to six cents per pound. Layer raisins, in no respect superior to samples that have been presented to the Rural Press by our friends in various parts of the State, are retailed at twenty-five cents per pound.

Other cured and dried fruits are put at such prices that the mass of consumers are not disposed to buy, even in cases where "money is no consideration." Even our standard green fruits—apples, for instance—are held at prices that effectually restrict their consumption, and this, too, while the press is teeming with suggestions in regard to the best methods of disposing of our surplus fruits. Possibly it might be to the advantage of California fruit consumers to have apples imported from the East, as we now import canned and pickled fruits and vegetables, eggs, bacon, etc.

The "Rural Press" Among the Weeklies.

The Petaluma *Argus* publishes a list of newspapers, magazines, etc., distributed in Petaluma. The number and character of the publications comprising the list speaks well for the liberality and taste of the community. We have no suspicion that this list was published with a view to advertise the place; but it will certainly act as an effectual advertisement among that considerable class of home-hunters who desire to be informed as to the intellectual culture of a community before settling among them.

We were interested in looking over the numbers and character of the dailies and monthlies in the list, but our interest, we confess, was principally with the California weeklies. We looked at once for the Pacific Rural Press, and ascertained that the number going to the Petaluma office is 95—more than twice that of any other California weekly; and this too, before the California Granger was merged into the Rural Press and its subscribers added to our list.

CORRECTION.—The communication published in the Press of January 15th, should have been credited to S. H. W., Wyoming Territory, instead of Washington Territory.

NEW BEET SUGAR MANUFACTORY.—We are informed that Mr. Dyer is forming a new company for the purpose of establishing a beet sugar manufactory at Alvarado, on the site of the old beet sugar works at that place. He is confident of his ability to overcome the obstacles that prevented the success of the former establishment, and we sincerely hope he will succeed in accomplishing this object.

CORRESPONDENCE.

[The RURAL PRESS, in opening the columns of this department to its correspondents, does not desire to lay before its readers anything which is not in keeping with its character and position as an agricultural and family paper. Facts are always thankfully received; and suggestions and matters of opinion on subjects connected with agriculture are also acceptable; though correspondents are to be understood as speaking for themselves and not for the PRESS.]

Jottings from Healdsburg.

EDITORS PRESS:—We had heavy rains in November; then warm, pleasant weather for a time, and after that cold nights, but no rain for six weeks. This gave ample time for putting in crops, which was improved by our farmers, and the prospect is now good for an abundant harvest. The volunteer grain is looking well. On the 14th we had a nice rain, and again on the 18th the heaviest rain of the season accompanied by thunder and lightning; it sounded grand as it rolled through the heavens, reminding us of other years. We seem to have more thunder storms of late than in former years in California.

We went to Santa Rosa one day, and as we passed a certain farm, between the house and the road stood a fine header. I thought the red paint would be somewhat faded by next harvest time, the wood warped and shrunken, and the irons nicely rusted. Maybe it is a good plan to pay hundreds of dollars for machinery and then waste it? When I looked on the other side of the road and saw the refuse from the stable piled to the eaves of the barn in several places along its sides, I thought if I was a man, and owned that place, I would haul that into the field to increase the quantity and quality of my grain, and sell it for enough more money to buy lumber for a shed for the header and other things.

Just here allow me to say that I do not appreciate wood piles, and all kinds of trash in the street or in front of the house. If a farmer has not room for a wood yard on his place, he had better sell out and move where land is plenty. If we do not have our homes tidy, how are our children to learn order and neatness? We want them in after years to remember home as being the most inviting spot to them on earth. S.

Healdsburg, Feb. 3, 1875.

From Los Neitos.

EDITORS PRESS:—Perhaps a line to the RURAL from Los Neitos may be acceptable to the RURAL. We will try. All the weather croakers are not up around the Bay. Some have strayed off away down here. Don't I catch it. Repaired up the ditches at my own expense, and was through irrigating just as a big rain set in. Yes, we have had a rain—a big one. My rain gauge (a water pail), guessed about six inches. But the gophers we got during that ten days of irrigating! It won't do to state the productiveness of the soil here as to what a good gopher crop is, for not one out of forty of the readers of the RURAL, around the Bay counties, would like to know how badly they are ontstripped on this agricultural product by the "Lower Country." But irrigation don't kill gophers here. No, sir! Not our big fat gophers. Irrigation fetches them to the surface just a bilin. But unless one is right on hand, with a club, to settle up past accounts, they will manage to be on hand for the next crop—certain enough.

Some of my old friends, north of the Bay, have been of late writing me a few very direct questions; such as, are you going on to Texas? How is the country, compared with the newspaper statements? Has the country no drawbacks, that we see none in the popular press?

As most of those questions come from readers of the RURAL, I will simply say that there is an immense amount of land for sale in this "New Italy." Quill-drivers are not supposed to show up the short-comings of a country. I will make a few remarks, thus: Those of you who have a home, and are not afflicted with fever and ague, stay there. If you have orange on the brain, put out oranges right at home. There is not difference enough in this and old Sonoma county climate to pay for being dissatisfied.

Every now and then the RURAL brings forth additional testimony of different localities north of the Bay producing good oranges. When it is proven, I will give it, and will shout out the assertion waiting the proof, that as good oranges can be grown (in favored localities) north of the Bay as in Los Angeles.

Wood and water is, as a general thing, very indifferent in this country. To get up a winter's wood out of a willow thicket, when you seldom get a stick as large as your wrist, would be a discouraging task to many of the farmers of old Sonoma. But with us here, it is willow or none. Uncle Sam has stopped the stripping the oak off the mountain sides. Water here has not the flavor of the Bay counties, but will compare with the Sacramento valley. My thermometer has stood at 32° many times this winter.

Land titles in many localities are rather shaky. Grasshoppers are bad at times in some parts. Frosts very late and very severe. In some localities, salt and alkali land is rather

abundant. If not too much impregnated, however, it is sometimes very productive. But irrigation seems to damage such land, by causing the salts to accumulate on the surface by excessive evaporation. In the main this seems to be a very healthy region, but those afflicted with rheumatics, asthma or consumption had better seek another clime than this; for our fogs and sea-breezes are rather bracing.

But I must not get off my topic. If you have no home that you can call your own, and know how to farm, and are willing to take hold without gloves, this county offers inducements ahead of the Bay counties. Poor men buy land here on time, and pay eight times out of ten. The highest priced lands here are the cheapest, all things considered. I will here say that the popular press does not overrate the productiveness of those favored spots, that are written up. One of our nearest neighbors farmed ten acres, this past season, first crop in barley hay—three tons per acre—row in barn, baled, worth \$20 per ton. Then irrigated and planted to Humboldt potatoes, and harvested above nine hundred sacks; sold and selling above two cents per pound wholesale. But mind you, this land was *farmed not butchered*.

Who among the readers of the RURAL can figure up such farming and say that they could not pay out a mortgage on such land. Yet there are those here who call themselves farmers, who cannot do it. GEO. KAY MILLER.

Los Neitos, Jan. 27th, 1875.

From Tangent, Oregon.

EDITORS PRESS:—When I read of the cold winters and the ravages caused by grass hoppers and other insects in the older states, and look around at the resources of Oregon, and consider her salubrious climate, fertile soil, and amount of land awaiting occupancy and cultivation to cause it to yield a rich reward to the husbandman, I wonder why there is not a greater rush to this country than there is. You of the Golden State, possess a country of which any people may be justly proud; and I am proud of you, but I want you to understand that Oregon is not to be despised by any country in the world. And when our farmers get thoroughly organized, and we have increased facilities for transportation, we will have a market equal to California. We have both the early and the late rains, and have never failed to raise a crop. We want connection with the rest of the world by rail, we want immigration, want capital, and we want labor. We, too, have a mine that is inexhaustible. It termed by experts "vegetable mould," and if it is placed in skilful hands and scientifically managed, I am sure that it will yield a far richer return than the big bonanza. J. F. ROBERTS.

Tangent, Linn county, Oregon, Jan. 29, '75.

The Tariff.

Provisions of the Bill Revising the Revenue Laws.

The Bill for the revision of revenue laws which has passed both Houses of Congress and awaits the signature of the President—which it will undoubtedly receive—contains some provisions which directly affect the producers of this coast, and which we herewith give for the benefit of our readers:

That from and after the date of the passage of this act, in lieu of the duties heretofore imposed on the importation of goods, wares and merchandise hereinafter specified, the following rates of duty shall be exacted, namely:

Silk Goods.

On spun silk, for filling in skeins or caps, thirty-five per centum ad valorem.

On silk in the gum not more advanced than singles, tram and thrown or orgazine, thirty-five per centum ad valorem.

On floss silks, thirty-five per centum ad valorem.

On sewing silk in the gum or purified, forty per centum ad valorem.

On lastings, mohair cloth, silk twists or other manufactures of cloth, woven or made in patterns of such size, shape or form, or cut in such manner as to be fit for buttons exclusively, ten per centum ad valorem.

On all goods, wares, merchandise not otherwise herein provided for made of silk, of which silk is the component material of chief value, irrespective of the classification thereof for duty by or under previous laws, or of their commercial designation, sixty per centum ad valorem; provided that this act shall not apply to goods, wares or merchandise which have as a component material thereof twenty-five per centum or over in value of cotton, flax, wool or worsted.

SECTION 2. That from and after the passage of this act, in lieu of the duties now imposed by law on the merchandise hereinafter enumerated imported from foreign countries, there shall be levied, collected and paid the following duties, that is to say:—

On all still wines imported in casks, forty cents per gallon.

On all still wines imported in bottles, \$1 60 per case of one dozen bottles, containing each not more than one quart and more than a pint or twenty-four bottles, containing each not more than one pint, and any excess beyond those quantities found in such bottles shall be subject to a duty of five cents per pint or fractional part thereof; but no separate or additional duty shall be collected on the bottles; pro-

vided that any wines imported containing more than twenty-four per centum of alcohol shall be forfeited to the United States; provided, also, that there shall be an allowance of five per centum, and no more on all effervescing wines, liquors, cordials and distilled spirits in bottles, to be deducted from the invoice quantity in lieu of breakage.

SEC. 3. That all imported wines, of the true character provided for in the preceding section, which may remain in public store or bonded warehouse on the day this act shall take effect, shall be subject to no other duty upon the withdrawal thereof for consumption than if the same were imported after that day; provided that any such wines remaining on shipboard within the limits of any port of entry in the United States on the day aforesaid, duties unpaid, shall for the purposes of this section be considered as constructively in public store or bonded warehouse.

Jute.

SEC. 7. That the duty on jute butts shall be \$6 per ton, provided that all machinery not now manufactured in the United States, adopted exclusively to manufactures from the fiber of the ramie jute or flax, may be admitted into the United States free of duty for two years from the 1st of July, 1875; and provided further, that bags, other than American manufacture, in which grain shall have been actually exported from the United States, may be returned empty to the United States free of duty, under regulations to be prescribed by the Secretary of the Treasury.

SEC. 9. That barrels and grain bags, the manufacture of the United States, when exported filled with American products, or exported empty and returned filled with foreign products, may be returned to the United States free of duty under such rules and regulations as shall be prescribed by the Secretary of the Treasury, and the provisions of this section shall apply to and include shoos when returned as barrels or boxes as aforesaid.

Tobacco.

SEC. 24. That whenever any manufacturer of tobacco shall desire to withdraw the same from his factory for exportation under existing laws, such manufacturer may, at his option, in lieu of executing an export bond, as now provided by law, give a transportation bond, with sureties satisfactory to the collector of internal revenue, and under such rules and regulations as the Commissioner of Internal Revenue, with the approval of the secretary of the Treasury, may prescribe, conditioned for the due delivery thereof on board ship, at a port of exportation to be named therein, and in such case, on arrival of the tobacco at the port of export, the exporter or owner at that port shall immediately notify the collector of the fact, setting forth his intention to export the same, the name of the vessel upon which the same is to be laden, and the port to which it is intended to be exported. He shall, after the quantity and description of the tobacco have been verified by the inspector, file with the Collector of the Port an export entry verified by an affidavit. He shall give a bond to the United States, with at least two sureties satisfactory to the Collector of Customs, on condition that the principal named in said bond will export the tobacco specified in said entry to the port designated in said entry, or to some other port without the jurisdiction of the United States, and upon the lading of such tobacco the Collector of the Port, after proper bonds for the exportation of the same have been completed by the exporter or owner at the port of shipment thereof, shall transmit to the Collector of Internal Revenue of the district from which the said tobacco was withdrawn for exportation, a clearance certificate and a detailed report of the inspector, which shall report the quantity and description of manufactured tobacco and the marks thereof. Upon the receipt of the certificate and report, and upon the payment of the tax on the deficiency, if any, the Collector of Internal Revenue shall cancel the transportation bond. The bond required to be given for the landing at a foreign port of such manufactured tobacco shall be cancelled upon the presentation of satisfactory proof and certificates that said tobacco has been landed at the port of destination named in the bill of lading or any other port without the jurisdiction of the United States, or upon satisfactory proof that after shipment the same was lost at sea, without fault or neglect of the owner or exporter thereof.

Tax on Notes of Circulation.

SEC. 19. That every person, firm or association other than the national bank associations, and every corporation, State bank, or State banking association, shall pay a tax of ten per centum on the amount of their own notes used for circulation and paid out by them.

SEC. 20. That every such person, firm association, corporation, State bank, or State banking association, and also every national banking association, shall pay a like tax of ten per cent. on the amount of notes of any person, firm or association other than a national banking association, or of any corporation, State bank or State banking association, or of any town, city or municipal corporation, used for circulation and paid out by them.

SEC. 21. That the amount of such circulating notes and the tax due thereon shall be returned, and the tax paid at the same time and in the same manner, and with like penalties for a failure to return and pay the same, as provided by law for the return and payment of taxes or deposits, capital and circulation, imposed by the existing provisions of the Internal Revenue law.

Checks and Drafts.

SEC. 15. That the words "bank check, draft or order, for the payment of any sum of money whatever, drawn upon any bank, banker or trust company at sight or on demand, two cents," in schedule B, of the Act of June 30, 1864, be and the same is hereby stricken out, and the following paragraph inserted in lieu thereof: "Bank check, draft, order or voucher for the payment of any sum whatsoever, drawn upon any bank, banker or trust company, two cents."

Natural Phenomena.

The store of human knowledge in the science of natural phenomena is receiving constant accessions from intelligent observers in every field of observation, whether upon land or water. Among the latest recorded cases we may instance the following which have come to hand in this locality during the last week:

On Wednesday of last week, about half past ten A. M., some topographical students who were out on the Presidio, near this city, while adjusting their instruments, suddenly heard a sharp whistling in the direction of the northwest. The sound increased, and passed overhead as if a shell or rocket, a whistle at first, increasing to a scream; then as a park of artillery rapidly rolling over a rough road, it dwindled into silence, passing to the southeast. Nothing was visible in the air. But the most curious thing about it was, that before the sound the needle pointed two and three-quarter degrees to the west of north. But, when the sound had ceased, and the students with pale faces gave their attention to their theodolite, it showed a variation of twenty-two and three fourth degrees to the east.

A contemporary in recording the above says: "Who can explain this curious phenomenon? 'Here is a nut for some of the members of the Philosophical Society to crack.' If the facts are correctly reported a large meteor, invisible on account of the noon-day sun, must have passed over the city in a southeasterly direction. The highly metallic character of such a large body could scarcely have failed to have affected the compass precisely as indicated. Coming from the northwest the needle would first have been depleted to the west as stated; and after its passage 'overhead' it would have been as surely depleted to the east as was observed and noted by the 'topographical students.'"

Another phenomena, indicative of the existence of submarine volcanoes has been reported the past week by Captain McKenzie, from the South Sea Islands. While Captain McKenzie, on April 30, was sailing with his ship among these islands, about twelve miles from land, he observed a large column of water shoot up fully one hundred feet in the air. From this water arose a dense cloud of what appeared to be steam. The spot where this phenomena occurred is marked on the maps as a shoal. As long as he was in sight of this water it continued to be sent up with equal force.

THE AGE OF COAL.—INTERESTING FACTS.—Recent observations render it highly probable that vegetable matter may, under favorable conditions, be converted into coal much more rapidly than geologists are in the habit of assuming. A curious instance has been brought before the German Geological Society by Herr Hirschwald, of Berlin. In the Dorothea mine, near Clausthal—wood originally employed as timbering has become so far altered as to assume most of the characters of a true lignite or brown coal.

It appears that certain of the levels in the ancient workings of this mine are filled with refuse matter, consisting chiefly of fragments of clay-slate, more or less saturated with mine water, and containing here and there fragments of the old timbering. This wood, when in the mine, is wet and of a leathery consistency, but on exposure to the air it rapidly hardens to a solid substance, having most, if not all, the characters of a true lignite. It breaks with a well-marked conchoidal fracture, and the parts which are most altered present the black lustrous appearance characteristic of the German "pitch-coals." At the same time, chemical examination of the altered wood shows that it stands actually nearer to true coal than do some of the younger tertiary lignites. This instance seems therefore, to prove that pine wood, when placed under highly favorable conditions, may be converted into a genuine lignite within a period which, from what we know of the history of mining in the Hartz, cannot have extended beyond four centuries.—*Athenaeum London*.

AGE OF THE AUSTRALIAN GOLD DRIFT.—Among some fossils recently described by Professor McCoy, of Melbourne, is an extinct wombat. From the gold drifts of Victoria. This fossil, called *Phascodomys plicatus*, is of much interest, as having enabled Professor McCoy to show that the auriferous deposits whence it is derived, instead of being merely alluvial, should be referred to the more ancient pliocene period, thus corresponding in age with the gold drifts of the Urals.

ANOTHER NEW ASTEROID.—The Smithsonian Institute has received a cable dispatch announcing the discovery, at Berlin, of a new planet, in right ascension 23°, declination 18° 26' north, of the twelfth magnitude.

THE DAIRY.

The National Dairy.

The tenth annual convention of the American Dairymen's Association was recently held at Utica, N. Y., commencing on Jan. 12th. It is to be regretted that the Pacific coast could not have been represented there. It would have been to the advantage of our own dairy interests and we should have contributed our mite of interesting and useful information. Although this association has selected Utica as its established place of meeting, it is not because this is the center of the most celebrated dairying district in America, if not in the world but because it is central in its location and more easily reached from all points. Far from being local or exclusive in its character and membership it is in reality what it claims to be, an American association numbering among its members practical dairymen from Canada on one side, to South Carolina on the other. We hope the Dairy of California will be represented at the eleventh annual meeting of the association.

We would like to lay before our readers the entire proceedings of this convention, but this is impossible; we will, however, make some selections culling such prints as we think of most practical value to our readers:

The Past Season.

Mr. Moon, of Herkimer, said early in the year the season was unfavorable, and milk of night was brought skimmed; the people asked for making of butter earlier in the season, so that it had required about $\frac{1}{4}$ lb. of milk more to a lb. of cheese. The average had been 98. The weather had been wet along toward the middle of the season, but no difficulty had been experienced in keeping milk over night. The latter part of the season had been dry, which had caused decrease in milk.

Mr. Ellsworth, of Barry, Mass., said Boston dealers had told him the quality of butter the past year was poorer than the year previous. Very little good butter was in market. The butter was shipped from different points.

Mr. Farrington, of Canada, said that buyers had found their cheese better the last year. They had a very dry season. He did not know whether the improvement was in quality of milk or in manufacture.

Home Market.

Mr. Farrington inquired why the home consumption fell off.

Mr. Peters said a fine, small cheese is needed. The popular taste cannot be educated to skim cheese.

Mr. Douglass, of New York, was not aware there had been any special diminution in the domestic trade. There are more direct domestic outlets, instead of ordering through New York. He thought therefore the consumption was if anything increased.

Mr. Folsom agreed with Mr. Peters, and adduced figures to show it. There was a falling off in home consumption in 74 of nearly 40,000 boxes. The short lots fine, small cheese has always sold readily on the score of size, not fineness. To hold the home trade you must make small cheese and fine cheese, not skim cheese. He was sorry to see the creamery trade so general. There was a limited demand for skim cheese and only limited. Mr. Moon, of Herkimer said the public does not recognize individual capacity the fact stated in the address that the great amount of poor cheese pulls down the prices. It renders the trade unstable. This poor quality is induced to a great extent by skim cheese.

Preservation of Butter.

Mr. L. T. Hawley of Onondaga, addressed the Convention on Preservation of Butter. He proposed to advance somewhat new ideas. Butter should be so manufactured as to be its own preserver. Salt is used in so small proportion that it does not preserve it. Butter will become frowy as soon with a salt flavoring as without. If salt only flavors butter how shall we preserve it? and that is so well understood by good dairymen that it seems superfluous to discuss it further. Select cows noted for richness rather than quantity of milk. Keep them in the best condition with fine pasturage and pure water. Preserve the milk from sources of taint. Keep every thing in the most cleanly condition. Skim as soon as the milk is slightly sour and place in temperature of 55 to 64°. He proceeded to detail butter manufacture, urging washing with pure, cold brine, which enables the butter to become cleansed of the cheesy matter. Salt with pure Onondaga salt, not as a preserver but as a flavorer of butter. Salt one ounce to the pound, more or less, according to the amount of water in the butter; one ounce to the pound is not too much for a year's keeping. Avoid over-working, as that causes rancidity. Air tight firkins made of white oak, solid timber, should be used. Soak the firkins with hot brine to neutralize the taste of the wood. Pack the butter in carefully, cover with cloth and layer of salt and cover with clean flat stone, and store in a cellar where there are no vegetable odors. Salt will preserve butter if there is enough, but in butter only enough is used to

flavor and harden it. He urged the importance of manufacturing, packing and storing butter so well that it will keep without salt. If butter is taken from the churn before it is gathered and put into a sieve, made for such purpose, and clear salt water be poured over it, it will the sooner be cleared of the buttermilk and cheesy matter, which are what causes butter to frow, and not the salt.

Mr. Hawley, in reply to inquiry, said his experience showed that if the butter fat only is retained in the butter it will keep without any difficulty. Butter made by Mr. Flower the way described kept sweet two years and four months. Cheesy matter in the butter will make it frowy and the salt will not prevent it. Too much fault is laid to the salt. If the cheese is well manufactured undoubtedly any kind of clean salt will preserve it sufficiently.

Mr. F. D. Stone, of Cleveland, O., addressed the convention on "Butter and its Preservation." It is not unlikely that the first idea of butter was obtained by the agitation of milk in bags conveyed on camels in crossing the desert. Analysis of 1,000 parts of butter showed 30 of butter. The butter floats in the milk in globules. These globules rise to the surface and constitute cream. Cows fed on odorous food impart a taint to the milk. So even after the milk is drawn from the cow; even a sprig of catnip on the shelf will impart odor to milk. The milk should be kept as near blood heat as possible till brought to rest in the pan. The best approved temperature for obtaining cream is 60 to 70°. The increased temperature in churning is due only to friction, and not chemical action of the milk. The purest water, if any is used at all, should be used in washing the butter, and every particle of water worked out. Good butter will be firm and brittle, a sort of incipient crystallization. Butter loses flavor through fermentation of lactic or butyric acid, through cheesy matter being left in the butter. A serious defect in butter packages is the absorption of butter into the wood. A great deal of loss occurs annually through this cause. Objections were found to stone jars and metallic packages. The desired substance for the inner surface of metal vessels is paraffine, which by chemical aid can be applied so that no injury will result to butter from packing. He announced that he would exhibit specimens of this paraffine and metal packages thus prepared for packing Wednesday. The cost is about the same as that of the wooden package. He exhibited a small package. The paraffine is used on the tin, which is granulated to hold it, and a little paraffine poured on top seals the package. The tin package has an outer case of wood.

Mr. Douglass, of New York, said spruce is used in Northern Oneida and in Lewis county, and dealers have requested that this wood be not used. It imparts an odd taste. This improvement in package is a desired improvement. Proper care should be given to the investigation of this matter. Any soft, resinous wood is objectionable. Ash with hard cover is desirable.

Dairy Lands in Los Angeles County.

Natural Grasses.

Bordering, and lying parallel to the sea-coast of Los Angeles County, there is a strip of wet lands of great natural fertility, which are covered with perpetual verdure. The moisture is supplied by numerous deep-seated springs, which are in reality natural wells, from which the water flows in great volume, just as it does from the artificial ones bored by the hand of man. In this valley the supply from both (natural and artificial) is constant and unvarying, and the water from each is cool, soft and pure. The grasses growing on these lands, although eaten freely by sheep and horses, is found to be particularly adapted to cattle, and dairy cows fed upon them yield a large supply of rich milk, from which the finest quality of butter and cheese is made.

In consequence of our peculiarly equable climate, in which the extremes of heat and cold are unknown, and of the remarkable fertility of the soil and ever present moisture, the growth of the grasses is perennial; in fact, unless heavily stocked and kept fed down, the growth is apt to be coarse, and it requires a stock of from one to five cows per acre to keep the sod in the best possible condition. During the summer, when the soil is warmest, the grass is produced in the greatest abundance, and in the winter, when the temperature is lowest, the growth is the least, unless the winter should prove to be a dry one, in which case the crop will be nearly as good as in the summer. But, as in the wet seasons the contiguous valley lands, which are slightly more elevated, are covered with a heavy growth of clover and alfalfa, the dairyman can alternate from the wet to the dry lands, according to the season, and have an abundant supply of green feed during the entire year. By securing a sufficient extent of both varieties of range, he can, if so inclined, continue his business of butter and cheese making steadily throughout the entire year, without plowing a furrow or sowing a seed.

Cultivated Grasses.

Inland from, and contiguous to, the wet lands above described, is a broad belt of fertile bottom-lands, in which the water is not more than four to six feet from the sur-

face, which are green each year with a heavy growth of Burr Clover and alfalfa from six to seven months each year—grasses which furnish the richest and most nutritious pasture, both in the dry and green state,—but which are also the very best of alfalfa lands. When these lands have been properly prepared and sown with alfalfa, and have been irrigated occasionally, so as to keep up the proper condition of moisture, the alfalfa makes a growth of one inch per day during eight months of the year—that is, during the warmer season, and half an inch per day during the four cooler months. When used for soiling or hay it is cut every four or six weeks during the first, and thrice during the second period. An ordinary annual crop of hay per acre is fifteen tons. When pastured there should be two or three enclosures, each to be fed in turn, stocking the range so that the grass will not have attained a height of more than one foot when the cows are turned in upon it. A very safe estimate of the capacity of alfalfa is two cows per acre when pastured, and four when soiled.

These lands can be irrigated when necessary by means of artesian wells, which are obtained invariably by boring from 100 to 200 feet on all these lands. The cost of lands, wells, live fences (willow or cottonwood), ditches, plowing, leveling, seeding, and reservoir, all complete, will not exceed forty dollars per acre; and after this is done the dairyman can safely calculate upon working his cows up to their full capacity in the production of butter and cheese.

Mesquite Grass.

The Mesquite grass of Texas thrives exceedingly on these lands, and for pasturage purposes exclusively it is not certain that it is not fully equal to alfalfa. They do admirably when sown together; and when it is intended to use the land for pasturage I would recommend that they (alfalfa and mesquite) be sown together. All stock like variety, and moreover, it is certain that more plants will grow upon an acre, consequently there will be more food when there is a variety.

Transportation.

All of the above lands are convenient to shipping ports on the sea coast, where steamers land two or three times per week, the distance from these ports ranging from one to twelve miles. The temperature is all that could be desired, stock requiring no shelter except during rainy nights in the winter season—something, however, that they rarely get in this State, even in the northern part.

The above statements and estimates are based upon what is actually being done, on a small scale, it is true; but all the dairy business in this section as yet is on a small scale. A farmer with forty acres of alfalfa can easily keep 100 cows, which will certainly produce one-third more butter or cheese than they will anywhere else on the natural grasses. The attention of our dairymen east of the Rocky Mountains, where they work hard for six months of the year for the sake of handling a pitch-fork and snow-shovel the other six, is especially called to this valley, where they will find the rough ways made smooth and dairying made easy. WM. R. ALDEN.

ANAHEIM, Nov. 27th, 1874.

USEFUL INFORMATION.

Cement Walls and Cisterns.

With one pint of quick lime or good (new) cement, we use from one to two parts of coarse, sharp sand, to make a stiff paste. This for quality, depends on the freshness of the lime or cement, which requires less sand in proportion to its strength. Sand is useful to diminish the cracking, as the paste or mortar dries, thereby to give it "body" and help fill up. Quick mortar should be made up every day, for each day's work, which is contrary to practice in this country, but the mortar is better. It never becomes soft after use, from age. Into this, fine and coarse gravel can be worked by the trowel, as the joints are flushed. For cisterns, Rosendale and Portland cement takes the place of lime, with only less sand, and makes walls as solid as Ransome stone. The magnesia of the cement seems to have a peculiar affinity for unburnt limestone and brick surfaces.

Finely pulverized soft brick, mixed with about equal parts of wood ashes and a little water in a basin, is put on the surface of a cement-laid or grouted floor of a dwelling house, with a trowel, and worked up to a finish that much resembles a glaze on pottery. This is easily swept and washed, and wears always a clean appearance. As a paste to repair old cisterns and stop cracks, with or without the addition of a small quantity of iron filings and sal-ammoniac, this is very valuable.

We wish it were possible to impress our masons with the fact that thin joints make the best walls, and require the least quantities of water and cement, both of which are chemically stronger and better for being mixed for the purpose.

The Alchemists.

What manner of men were the alchemists? How did they preserve, cultivate and transmit the wonderful delusions of their creed? We have endeavored in a former chapter to show that the idea of transmutation arose from the old Greek idea of the conversion of one element into another; and the belief in the possibility of transmutation once admitted, the pursuit of the alchemist would naturally follow in a mystical and credulous age. As to the men themselves their character was twofold; for there was your alchemist proper, your true enthusiast, your ardent, persevering worker, who believed, heart and soul, that gold could be made, and that, by long search or close study of the works of his predecessors, he could find the Philosopher's stone; and there was your knavish alchemist, a man who had wits enough to perceive that the search was futile, and impudence enough to dupe more credulous people than himself, and wheedle their fortunes out of them on pretence of returning it tenfold in the shape of a recipe for converting lead into gold. Of the true alchemist we have many pictures. The alchemist, the astrologer, the mystic, the wizard, were men of the same stamp. They often practiced the same arts side by side. The same habit and altitude of thought belonged to one and to all, and became all equally well. Take the dreamy, maudlin, semi-manical Althotas, who had been described so well by Dumas: "An old man, with gray eyes, a hooked nose, and trembling but busy hands. He was half buried in a great chair, and turned with his right hand the leaves of a parchment manuscript." Note also his intense abstraction, his forgetfulness of the hour, the day, the year, the age, the country; his absolute and intense selfishness and absorption, the concentration of the whole powers of his soul upon his one object. Or let us look at Victor Hugo's Archidiacre de St. Josas, in his search for the unseen, the unknown, and the altogether uncanny; the bitterness of his soul, his passionate musings, his conjurations and invocations in an unknown tongue; his own self, that wonderful mixture of theologian, scholar, mystic, perhaps not much unlike the divine St. Thomas Aquinas himself.

"If we peep into Dom Claude's cell, we are introduced to a typical alchemist's laboratory—a gloomy, dimly-lighted place, full of strange vessels and furnaces and melting pots; spheres and portions of skeletons hanging from the ceiling; the floor littered with stone bottles, pans, charcoal, aludels and alembics, great parchment books covered with hieroglyphics; the bellows with its motto—'Spira, Spera'; the hour glass, the astrolabe, and over all cob-webs and dust and ashes."

Chalcedony.

What boxwood is to the wood engraver—the means without which the finest art would be impossible—that chalcedony is to the engraver of gems. Hard without brittleness, susceptible of a fine and enduring polish, tinted by nature with beautiful, and at times, strongly contrasted hues, or capable of taking such colors at the hand of man, it has been from the earliest period of art not only the favorite medium but the only possible medium of the gem engraver's most striking effects. In its simplest state chalcedony is an unattractive white stone, nearly transparent, and chiefly useful for making spear-heads and arrow-points, or there more modern representatives, gun-blunts. Sometimes it has a striped or banded appearance, due to alterations of more or less translucent layers, ranging in color from very white to the white of skim milk, still not very serviceable for gems or jewelry. When strained by metallic oxides, however, chiefly those of iron, it raises to the dignity of gemstone, isard, cornelian, chrysoprase, etc., which, uniformly tinted brown, yellow, red or green, as agate, onyx-sardonyx, etc., when the colors lie in bands or strata, or are separated by layers of white. The natural formation of these flowers of the mineral world is recorded in their substance. Though commonly found in lavas and other igneous rocks, or in the debris remaining from their disintegration, gemstones are substantially an aqueous product, and require the agency of fire simply to develop their fine colors, a step in their production more the work of art than of nature.

TO RENDER GLASS OPAQUE OR FROSTED.—According to *Dingler's Journal*, a sheet of ordinary glass, whether patent plate or crown does not matter, is cleaned; and if only portions of it are to be frosted, those are left bare, while the others are protected by mechanical means in any simple manner. Some flint spar is rubbed to a fine powder and mixed with concentrated sulphuric acid, so as to make a thin paste, and this is then rubbed by means of a piece of lead upon those parts of the glass required to be rendered opaque. A fine frosted outline or design may thus be produced upon a sheet of smooth transparent glass. To finish the operation, the glass is gently heated in an iron vessel covered with a funnel passing up the chimney, to get rid of the noxious fumes that are given off; on cooling, the plate is washed with a dilute solution of soda or potash, to remove any acid yet remaining, and is then rinsed in water. Focusing glasses for the photo camera, and development glasses for pigment printing, can be prepared in this way at very little expense.

PATRONS OF HUSBANDRY.

STATE GRANGE HEADQUARTERS.

I. G. GARDNER, State Agent; Executive Committee Rooms; Fruit Growers' Associations, and Farmers' Mutual Life Insurance Company, all at No. 6 Leidesdorff street. W. H. BAXTER, State Secretary, at Grangers' Bank, 415 California street, S. F.

NOTICE TO STOCKHOLDERS OF THE GRANGERS' BANK OF CALIFORNIA.

At the meeting of the Directors, on Feb. 9th, the following resolution was passed:

That all assessments due and not paid on Feb. 1st, 1875, shall be charged interest at one per cent. per month from that date till paid. It will be to the interest of all delinquents to give this notice prompt attention.

Also the following resolution was passed:

That on all stock taken on and after the first day of April, 1875, a premium of one per cent. per month will be placed, reckoning from Aug. 1st, 1874, on all assessments payable up to the time the stock is taken.

F. A. CRESSEY, Sec'y.
San Francisco, Cal., Feb. 9th, 1875.

Grange Clubs for the Rural.

The Secretary (or some other Patron) is invited to act as club agent for the PACIFIC RURAL PRESS in every Grange. Circular and sample copies sent free. Five or more names will constitute a club, at the rate of \$3 a year. No new subscriptions will be taken without payment in advance. We will pay the postage after Jan. 1st, 1875. All club subscriptions in Granges should end on the last day of the month. Old subscribers may join the club by paying the Secretary up to club dates. Every Patron farmer should read a reliable agricultural paper. We need the support of all on this coast. Help the Secretary (or club agent) to make up a large list in your neighborhood. Don't delay.

Secretaries will be supplied with a printed list of subscribers for this paper upon sending a list of post offices within the range of their Grange. Also with blank reports, etc., for clubs.

The Business Association.

A convention of Grangers will meet in this city on the 15th inst. to organize the "Grangers' Business Association of California." It is proposed to form a joint stock company with a capital of one million dollars, divided into forty thousand shares of the par value of twenty-five dollars each. The object of the Association is to transact a general merchandising, shipping and commission business—to do, in short, anything and everything that may become necessary to protect the commercial interests of the agricultural community.

Let us disavow, beforehand, any speculative project. Our business is self-protection, not speculation. We propose to enter the market not as competitors, but as conservators. The fund placed at the disposal of the Association will be considered a reserve, to be used only in case of an emergency—to knock down corners and break up rings. Even with such limitations, the field is large enough to employ all the surplus capital and the best business talent of the Order. Buying and selling grain, fruit, dairy produce, live stock, agricultural implements, bags, the establishment of warehouses and factories, chartering vessels, etc., all come within its province.

The necessity for such an association has been demonstrated to the entire satisfaction of the farmers of this coast. The wrongs they had suffered at the hands of speculators drove them into the organization of the Grange; and the inefficiency of the Grange as a business agency without capital at its command, is so apparent as to need no special exhibition. The question to-day is "business or no business." If the Grangers propose to do business they must organize as suggested, with capital; if they do not, for their own credit, they should abandon this field and confine themselves to social exercises.

The Order on this Coast has just passed a crisis; it has seen the darkest hour of its existence. We have anxiously watched the effect of the severest possible test upon our people and are more than gratified. Adversity has disheartened none, but all have been confirmed in the faith and qualified by experience to perform their parts in the grand enterprises of the future. Failures are the seed of success, and from the sowing we expect a bountiful harvest. From the 15th inst. will date a new era in which those who participate will reap the reward of their patience and toil. Let not a few bear the burden and responsibility and then call them monopolists, but let every member of the Order take part in the organization of the Business Association, and share its benefits.

We are unable to state at this time in what hall the convention will meet; but due notice will be given in the city papers of the day of meeting, or the place of meeting can be ascertained on that day by enquiring at the Grange Headquarters, No. 6 Leidesdorff street.

Every member of the Order, in good standing, will be entitled to an honorary seat in the convention.

ELECTION RETURNS.—In the Grange Directory, revised and published in the Press of last week, 255 California Subordinate Granges, with their Masters and Secretaries are given. Election returns have been received by us from 153 of these Granges, leaving 82 still unreported. Secretaries and others will please send in returns of elections not yet published, and notify us of any changes of officers, or inaccuracies in the published list, so that we can include them in the Directory for March.

The National Grange.

The National Grange, which has been in session at Charleston, S. C., during the past week, will probably adjourn to-day. We have as yet heard nothing of special interest with regard to its proceedings. From several telegraphic items which have been sent over the wires, we learn that Grand Master Adams delivered the annual address, and that there were about 600 members present. The members had been invited to a trip up Ashley river to examine the remarkable deposit of phosphates which are now being so largely utilized as a mineral manure. On Monday last, the Grange adopted resolutions declaring the patent laws oppressive and requesting Congress to grant no more extensions, but to so amend the laws as to allow any person to use or manufacture any patented article on payment of a reasonable royalty.

We hope to be able to give something farther with regard to the proceedings in our next issue; but the full report will not be given for some weeks to come. They will reach the subordinate Granges in the usual way—in pamphlet form. There can be no doubt but that a quiet but powerful influence for good will go out from this body of representative men. The reports which they will make upon some of the living issues of the day, cannot fail to be widely read and will have an important bearing upon the future of our people and the Government.

Help the Kansas and Nebraska Sufferers.

By vote of Temescal Grange, of Oakland, each member will act as a committee to collect funds for the assistance of the destitute people in the grass hopper devastated places of Kansas and Nebraska. The plan is to raise "A DOLLAR FUND"—every individual able to, being requested to give \$1. Grangers and citizens generally throughout the State are invited to contribute. Bro. John Kelsey, of Oakland, was appointed to designate places where contributions may be deposited. Among others, W. H. Baxter, Secretary State Grange, No. 6 Leidesdorff street, S. F., is authorized to receive subscriptions to this "dollar fund." As most of the needy are country people, contributions of second-hand men, women and children's wearing apparel would be acceptable. Free transportation is offered by the Railroad. Articles have already been forwarded from Oakland. Cash remittances should be post-paid and accompanied with the name and address of each donor. Let all the favored inhabitants of our prosperous State contribute one dollar for this noble object. The act will bless the donor and the receivers. Act without delay. Contributions sent to this office for this fund will be noted in our columns with the initials and address of the sender, and the amount turned in to the treasurer of the fund.

The Facts About the R. R. Telegram.

We have received a copy of resolutions passed by the Linn's Valley Grange, Kern county, upon the above subject, which we withhold from publication for the reason that they were evidently passed under misapprehension, although they express most excellent sentiments.

The Executive Committee of the State Grange did not send any dispatch at all to Washington on the subject of the S. P. or any other R. R. In the absence of the Executive Committee and the State Secretary, the latter's deputy signed a dispatch, with none but good intentions, by the recommendation of several parties at headquarters. The Secretary then telegraphed a denial of the dispatch as being sent by himself or the Executive Committee. These are the simple facts in the case.

Tulare County Council.

EDITORS PRESS.—The Council met in the hall of the Visalia Grange, in Visalia, January 12th, 1875, Master J. M. Graves in the chair.

The following Granges were represented through their delegates: Christmas, Tulare, Woodville, Lake, Deep Creek, Tule River and Visalia.

The following is a list of the officers elected for the present year: Master, M. S. Babcock; Overseer, J. M. Graves; Lecturer, W. H. Stuart; Chaplain, J. B. Hackett; Steward, C. T. Brown; Assistant Steward, John Stuart; Gate Keeper, J. N. Wright; Secretary, John S. Urton; Treasurer, J. Patterson.

Trustees—Christmas, W. H. Stuart; Tulare, J. N. Wright; Woodville, T. J. Ray; Lake, R. T. Armstrong; Deep Creek, W. G. Pennebaker; Tule River, J. B. Hackett; Visalia, T. Fowler.

The Council closed to meet on the second Tuesday in April, 1875. JOHN S. URTON, Secretary County Council.

A SUGGESTION.—**EDITORS PRESS.**—A Patron suggests that every Grange appoint an agent who shall reside in the city and transact all business for his Grange. He shall keep a strict account of his sales and purchases, and his books shall be subject to an examination by the Grangers at stated periods. Owing to the great mass composing the Order, we know that should every Grange undertake to transact business through any one firm, the matter becomes too unwieldy. Such an arrangement, we think, would tend to cause Grangers to carry out the principles of their constitution more thoroughly. N. C.

Election of Officers.

BORDEN GRANGE.—H. S. Patterson, M.; J. A. Pickens, O.; L. D. Coffee, L.; Jos. Borden, S.; J. H. Gordon, A. S.; E. S. Russell, C.; Jas. G. Crowder, T.; Jno. B. Fontain, Sec'y; Wm. S. Patterson, G. K.; Mrs. C. Russell, Ceres; Mrs. F. Borden, Pomona; Miss Maggie Borden, Flora; Mrs. J. Pemberton, L. A. S.

MILLVILLE GRANGE, No. 221.—J. P. Webb, M.; J. S. Nichols, O.; J. F. Winsell, L.; T. L. Gault, S.; E. Wagoner, T.; Mrs. J. F. Nichols, L. A. S.; L. T. Benton, A. A.; P. B. Langlois, C.; Mrs. J. F. Winsell, Ceres; Mrs. A. Kerney, Pomona; Mrs. T. L. Gault, Flora; Johnson Fender, G. K.; Geo. W. Welch, Sec'y.

SPRING VALLEY GRANGE, Spring valley, Colusa county.—J. B. Lucas, M.; J. McElroy, O.; Y. M. Phelps, L.; T. R. Arbuckle, S.; P. Grinnell, A. S.; W. J. Reed, C.; Wm. Kearth, T.; T. Singleton, Sec'y; E. Manthia, G. K.; Sister L. Reed, Ceres; Sister M. Manthia, Pomona; Sister Sarah Hayman, Flora; Elvira McElroy, L. A. S.

WALNUT CREEK GRANGE, No. 119.—M. L. Gray, M.; Walter Renrick, O.; Nathaniel Jones, L.; J. W. Jones, S.; W. Caren, A. S.; C. S. Whitcomb, C.; John Larkey, T.; R. M. Jones, Sec'y; W. L. Huston, G. K.; Mrs. M. E. Larkey, Ceres; Mrs. H. S. Penninen, Pomona; Mrs. M. L. Huston, L. A. S.; Orris Fales, Trustee.

FLORENCE GRANGE, No. 95.—Philip Howe, M.; J. N. Willey, O.; R. B. Russell, S.; D. H. Turner, A. S.; J. F. Durrell, T.; Mrs. Susan Corwin, L.; Mr. S. E. Tansey, C.; R. Ranney, Sec'y; E. J. Durrell, G. K.; Mrs. R. B. Russell, Ceres; Mrs. M. S. Rowell, Pomona; Mrs. D. Willey, Flora; Mrs. R. Ranney, L. A. S.

NEW GRANGE.—A new grange was organized by A. J. Christie, at Placerville, on the evening of February 1st, with the following officers: William Wiltse, M.; Geo. W. Ray, O.; Frank Goyan, L.; John S. Allen, S.; Jes. Lyon, A. S.; A. S. Cook, C.; Jacob Lyon, T.; H. G. Hulburd, Sec'y; Reuben Miles, G. K.; Mrs. C. Burnham, L. A. S.; Mrs. Symonds, Ceres; Mrs. Allen, Pomona; Mrs. G. W. Ray, Flora.

THE STATE LECTURER and BORDEN GRANGE.—It will be seen by our election returns that Bro. H. S. Patterson is elected Master for the ensuing year in place of Bro. J. W. A. Wright, who formerly held that office. Bro. John B. Fontain, Secretary of Borden Grange, requests us to state that it was the request of Bro. Wright that he should not be elected to any office, as his duties as State Lecturer compel him to be absent so much of his time.

GRANGERS' BANK.—The Board of Directors met this week. By reference to our official notice published at the head of this department, important information will be found regarding their action. The bank is increasing in prosperity.

From the Granges.

Eden Grange, Hayward.

A good attendance was had at the meeting of February 6th. Bro. C. J. Cressey spoke upon the Business Association and the Granger's Bank, and other topics for the welfare of individual members and "the good of the Order," for two hours. His remarks were well listened to. Good feeling prevailed with a determined spirit to work out the object of the Order. The sisters of Eden must have spread out one of their miraculous feasts, as Bro. Cressey—a farmer among farmers—says he has not enjoyed himself better for many a day. Since writing the above, Secretary Pierce's report has been received which closes as follows:

After touching briefly upon some of the various resources of our State, the brother urged the importance of the practice of economy in all our habits, especially to the young who have before them the work of laying up for a wet day as he plainly made it appear that what would be saved to the individual by abstaining from the ordinary use of tobacco alone, would, in a few years, amount to a competency, and he spoke in much stronger terms of disapproval of the habit of using the "burning cup." And as the near approach of the night admonished us that the labors of the day should be closed, all seemed to be thankful that they were Grangers, and especially for the brotherly visit which we had so profitably enjoyed, and by a unanimous vote of the Grange we so expressed ourselves, which was spread upon the minutes; and the implements being properly secured, we gave the brother the parting grip, hoping that his visit may be repeated.

Denverton Grange.

A member of this Grange sends us an account of the harvest feast recently given. Want of space forbids the publication of the full report, which concludes as follows:

The fourth degree was conferred and each officer did his duty well, and I think each lesson was indelibly fixed upon the mind of every member of the class. After the feast was over the great questions which are of such vital importance to our organization were discussed, and our brothers and sisters came to the unanimous conclusion that we must make a general business stand. Our Grange is steadily increasing in strength and usefulness. Our crops, of which we have a greater breadth sown than in any former year, look very promising. All kinds of stock have wintered well. C. B. J.

Millville Grange.

EDITORS PRESS.—Although we are away up here among the mountains of California, we do not feel entirely exempt from contributing a few items occasionally to your valuable paper. We are somewhat elated over the idea that we have one of the most flourishing Granges in northern California. Millville Grange, No. 221 was organized August 6th, 1874, by Worthy Lecturer, J. W. A. Wright. We started with a membership of 43, and have had 14 additions since, all of whom are zealous, active agriculturists, except your humble servant, who is unfortunately a school teacher, although a great admirer of the art of Husbandry.

We have been much more fortunate than many of our sister Granges from the fact that we have been able to procure all the necessities of our Order without any levy of assessments. Although we have no hall of our own, we rent, for a reasonable sum, the splendid ball belonging to the Masonic and Odd Fellows' fraternities, which is amply large, and well arranged for all purposes.

We celebrated the initiation of several brothers and sisters by a harvest feast a few weeks ago. We were somewhat reluctant in making such a move at first; not being satisfied as to how it would be received by the people; but our timidity all vanished when on the appointed day we beheld the rustic tables almost groaning under the weight of all that is desirable to satisfy the cravings of the inner man. Speeches were made, odes sung and toasts offered; in fact nothing was omitted that was calculated to elevate the mind and satisfy the wishes of all present.

G. W. WELCH, Sec'y.
Millville, Feb. 3, 1875.

Saticoy Grange.

EDITORS PRESS.—Papers from your office addressed to Saticoy Grange, have come into my hands. I expect to visit all the Granges in Ventura county, and will present the claims of the Press as a means of enlightenment to our farmers.

Mrs. Amanda Baker is now the Secretary of Saticoy Grange; E. A. Duval, ex-Secretary. Your humble servant has been appointed Deputy for Ventura county.

We have had an abundance of rain.

E. B. HIGGINS.
Saticoy, Ventura county, Feb. 1st, 1875.

Berryessa Grange.

EDITORS PRESS.—Perhaps a few items from this locality might be of interest. Our Grange here represents the "bone and sinew" of the valley, and we look forward to good times and pleasant meetings in the future. The recent stormy weather has interrupted our meetings somewhat, though it has been productive of much good. Farmers are in high spirits, and the valley presents a picture of one vast field of verdure. It is now an understood fact that we are to have one railroad, if not two, to connect us with the outside world, and then if wealthy persons seeking homes desires them situated in one of the most picturesque, romantic and fertile valleys of the State, blest with a fine, healthful climate, we can tell them of Berryessa. POMONA.
February 2d, 1875.

Wellington Grange.

EDITORS PRESS.—The Wellington Grange is not numerous; after a careful count I find that it lacks just 75 of having 100 members; yet it is cohesive, contented, and happy. We are a pastoral people, is the Wellington Grange. Our cattle feed upon a thousand hills and in ravines innumerable; and yet we are not proud. We are located just half way between Carson and Aurora; half way between pauperism and opulence; half way between civilization and barbarism; we read the Bible, we read Tom Paine's Age of Reason, we read the Christian Advocate, we read the Sporting Times, and as we become awakened to a sense of our own interest we read the Rural Press. We are industrious, we are frugal, we never sell our crops before we produce them, and we never buy any more of the ardent beverage than we have money to pay for; which naturally keeps us within the bounds of good Patrons.

We expect, in course of time, to become more numerous, in fact, we are now slowly advancing on our roll book. Ours is a precinct that polls about 33 votes, with a large preponderance of the bachelor element, hence the scarcity of material from which to make Grangers; and yet there are prospects of our coming out all right. Every available nook and corner is being "gobbled right away up," and a large ditch is being constructed that will cover some, where from 5,000 to 10,000 acres of the upper unoccupied, and most productive portion of our valley. Give us a few thousand acres of alfalfa waving to Washoe's gentle zephyrs, and we will show you a Grange. Our Worthy Master visits Merrit Grange next Thursday, for the purpose of installing their officers. Had I a copy of it, I would like to send you the address delivered by our W. Lecturer, before our Grange on installation day. It was excellent, brief, pointed, and delivered with decided eloquence. The subject was "Prompt Attendance of Members, and the Duties of Officers." However, I shall have to omit it, and remain fraternally yours, BRO. WALQUERS.

Wellington, January 25, 1875.

Meeting of Solano County Council.

EDITORS PRESS:—The meeting of the Solano County Council, Patrons of Husbandry, was held in Suisun City, February 2, 1875. The lovely day and anticipated pleasure of listening to an address from Bro. C. J. Cressey, Manager of the Grangers' Bank of California, caused the brothers and sisters to turn out enmasse, filling the spacious hall of the Suisun Valley Grange to overflowing. It had the appearance of our old time meetings before the failure of Morgan's Sons, everybody with a pleasant smile. The failure is now considered one of the mistakes of the past, and we have resolved to profit by the experience.

After transacting the regular business of the Council, Bro. Cressey was introduced and addressed the meeting at length, going into detail of the workings of the Bank, and touched on many things for the good of the Order. From the close attention given him I am warranted in saying all were well satisfied, and believe we have the right man in the right place.

I cannot close without mentioning the fact that your valuable paper is read and appreciated by a large number of the Patrons of this vicinity.

Prospects for a large harvest at this time are very flattering. Fraternally,

J. M. JONES.

Honcut Grange.

EDITORS PRESS:—Hoping that this will find space in your valuable paper, I devote a few of my leisure moments to a sketch of Honcut Grange, and description of the Honcut and the splendid lands which afford life and prosperity to the community. Honcut Grange was organized on the 17th of September last by W. H. Thorp, Organizing Deputy. Not receiving our working material until a short time ago, we have not been able to accomplish much more than to meet and spend a few hours in social conversation. But we are now fully organized and hope that our name will be remembered among those who are aiming to support one of the noblest callings of man.

Moore's station is principally situated on the west side of the Oroville railroad. The main street runs from north to south, that is if the North star is any guide to go by. I am sorry to say that the principal part of the business done is in the liquor trade. There is considerable grain shipped from here. It has a chance to make quite a prominent place some day in the future. Honcut is a small stream which heads near Forbestown. The farming portion of the Honcut is about ten miles in length and a mile and a half in width. The land, which is of a splendid quality produces from twenty to sixty bushels per acre according to the kind of grain sown.

The late flood caused some damage by washing away fences, and in some instances grain. But, altogether the damages are small compared with other places. With one wish for the prosperity of the Granger organization I subscribe myself. Yours, fraternally,

LELL BURDICK.

Honcut, Butte county, Feb. 3, 1875.

Ferndale Grange

EDITORS PRESS:—As I have been looking over the PRESS and have never been able to find any notice of this Grange, I thought I would take the liberty of giving you a short sketch of Ferndale Grange, No. 102, P. of H. We have a membership of 150 at present, which I consider pretty good, as we have been organized only about one year and a half. On January 6th, Brother Arbogast, of Arcata, came down for the purpose of installing our officers. We opened in the Fourth Degree, and after the usual order of business, the Degree was conferred on a class of two. Our largest class was 31, our smallest, 2. We will start a class of 8 at our next meeting. After conferring the Fourth Degree we partook of a bountiful Harvest feast. Immediately after dinner the tables were cleared, and the Grange proceeded to the installation of officers for the ensuing year. We had a public installation and our hall was crowded with visitors. After the Grange closed we had the first Grange dance ever given in this place. The supper was gotten up by a Committee of the lady members of the Grange.

IRA BURGETT.

Ferndale, Humboldt Co., Jan. 31st, 1875.

Poway Grange.

EDITORS PRESS:—I have received the RURAL PRESS since the formation of our Grange by the State Lecturer, and I would have written before but bad weather has prevented me from seeing some persons that I wished to get to subscribe for your paper. I think the RURAL PRESS is conducted on the right principle, and gives more practical experience than any agricultural paper in the State; in fact it is all that an agricultural paper can possibly be on this coast, that is to say, I don't see how it could be improved.

Poway valley has suffered but little, if any, for want of rain; crops look well and grass is more advanced than last year at this time. Could you give me any hints, or direct information, in regard to what should constitute the by-laws of a Grange? E. D. FRENCH,

Sec'y Poway Grange.

[We will send to our correspondent a copy of the RURAL PRESS containing the by-laws of the Grange.—EDS. PRESS.]

Healdsburg Grange.

EDITORS PRESS:—Our Patrons are trying to incorporate, but it seems difficult to get enough shares taken to commence safely, people are afraid it will not pay. I think the trouble is this, that interest in this State is too high, and as long as men can get 1½ to 1½ per cent. for money they will not engage to any great extent in new enterprises to build up the country in which they live; yet there are some who do all they can, and we hope to have a warehouse before next harvest.

L.

Healdsburg, Feb. 3, 1875.

St. Helena Grange.

EDITORS PRESS:—I do not know if there is any agent or club at this place. I did intend to bring the matter up in the Grange on the installation meeting, but there was so much other business, it escaped my memory. We should have a regular club in our Grange. We all like the paper and cannot well do without it. I read it all, but do not believe what the gentleman says, who is going to put out cuttings in January instead of rooted vines. I have tried both for six years.

J. W. SAYWARD.

The Grange in Washington Territory.

EDITORS PRESS:—Having a Grange here, we are going to build a hall. We shall build it 28 by 52 feet and two stories high, the upper room for the Grange and the lower for a public hall. We are poor and must study economy. We have no architect here, and cannot afford to hire one. Now, may there not be many other Granges similarly situated, who would be glad (with us), if you would publish plans, specifications, etc., of a hall about that size. We wish ante rooms above and below, and the stair case inside. Will 12 feet between floor below and 11 feet clear for upper story be sufficient? Would the hall look well outside with only one window in front over the door, and how many and what size should they be in the sides? How large joists would be necessary for upper floor with 28 feet span, and no center support? Or, will it be unsafe to have no support? Where the most convenient place for flues? House to be built of wood and warmed with stoves.

Our tide lands lately reclaimed are showing us their quality by such crops as the following: Calhoun Brothers, 113 acres of oats, 85 bushels per acre average; 115 acres barley, 77 bushels per acre average; J. S. Conner, 44 acres barley and oats, 3,800 bushels; 2,300 oats, 1,500 barley, or an average of both of over 86 bushels per acre. Dodge raised 51 pounds of rape seed on 1½ rods of ground. Can you give us an article on "Rape Culture;" cost of machinery, value of oil, etc. Dodge did not sow his until February 1, 1874. Eighteen acres of Calhoun's best oats gave 1,870 bushels, of 36 pounds per bushel. Last year's crops were about as good as generally. Not one-fourth of our marsh lands are yet dyked and improved.

Yours, etc.,

R. E. WHITNEY.

Lacconner, Whatcom county, W. T.

[The questions asked by our correspondent in regard to the construction of a Grange hall strike us as extremely *apropos*. According to present indications, many of these structures will be erected in all parts of the country. In some places both the requirements and the means will of course be greater than in others still the wants will be the same, varying only in proportion; and if a uniform style of architecture were adopted—a style in keeping with the principals and character of the Order—economy of space and money might be secured, and a brother would feel still more at home in any Grange Hall in the land, and the uninitiated would at once recognize the "Grangers' Hall" in any rural district as readily as they now do the village church.

We call upon our friends to send in designs and plans for such edifices. If sound judgment and good taste are brought into requisition, backed up by consistent earnestness, the result in the course of a few years would be a new, attractive and permanent addition to every rural district in the land; a sanctuary dedicated to the principles which form the true foundation of the social system of America.

In regard to rape seed, we can only say at present, that it is said to be a very profitable crop, grown on a small scale. The seed in small quantities is worth about 12½ cents per pound; that is, good seed is worth that. A good deal of mustard seed is palmed off for rape. The demand for rape seed seems to be quite uniform, and steady prices are maintained. We will endeavor at no distant date to give more of the details of growing and marketing this crop.

INSTALLATION OF STOCKTON GRANGE OFFICERS.

—By some mishap the notice of the installation of officers of Stockton Grange, sent us by Bro. Wm. G. Phelps, was mislaid. This accounts for the delay in noticing it. We find that the occasion referred to took place on Saturday, January 12th. Bro. J. W. A. Wright, Worthy State Lecturer, was present, and was assisted by Bro. Wolf, the Worthy Deputy, of San Joaquin county, in performing the ceremony.

General News Items.

GRANGERS' MUTUAL INDEMNITY ASSOCIATION. A certificate of association of the Grangers of California has been filed in the office of the County Clerk. The objects of the association are to secure to the families or friends of deceased members such pecuniary aid as shall shield them against want by paying to the nominee of such member the sum of one thousand dollars, the same to be paid by assessment on surviving members, under the provisions of the law passed at the last session of the Legislature. The principal place of business is in San Francisco. The term of existence is to be fifty years. Directors are named as follows: Josiah Earl, Oakland; J. D. Blancher, San Francisco; A. W. Thompson, Petaluma; E. Hallet, Chico; W. L. Overhiser, Stockton; J. A. Wilcox, Santa Clara; C. J. Mosley, Vallejo.

GRANGES IN FAVOR OF RIVER IMPROVEMENTS. —A telegraphic dispatch from Washington, dated Jan. 31st, says: The Masters of the State Granges of Missouri, Iowa, Wisconsin, Minnesota, Nebraska, Kansas, Ohio, Pennsylvania, Illinois, Michigan and Kentucky, and other prominent officers of different State Granges, last week visited this city on their way to attend the session of the National Grange at Charleston, South Carolina. While here they addressed a communication to Senator Windom of Minnesota, Chairman of the Select Committee on Transportation, expressive of their satisfaction at learning that the Select Committee in the Senate has in course of preparation measures for the improvement of the mouth of the Mississippi river.

A LOCAL "DEAD LOCK."—An unfortunate condition of things exists at this time in Santa Barbara. The Legislature, some years ago, gave Mr. Stearns the exclusive control of the water front of Santa Barbara for a mile in extent. No protest was entered, and now the people discover their error in allowing such a concession; for Mr. Stearns refuses to pay the city license upon his wharf, and threatens in case it is enforced to close the wharf up, which will be tantamount to non-intercourse by sea. Both parties are stubborn. This trivial action affords another instance of the foolishness of the franchise giving policy which has heretofore prevailed. Let us hope to see no more of it.

THE CRASH IN STOCKS.—There was great excitement in Virginia City consequent upon the late crash in stocks in this city. It is a pitiable sight to see men standing round the bulletin boards reading the last dispatches from California street. Some were actually crying. They had been led on by the excitement, sold or mortgaged their property to put up on margins, and now they have lost their all and are penniless; and the worst feature is that in a majority of instances the losers are all people of small means. Men and women are losers alike, for there is scarcely a woman in Nevada who is not interested in mining stocks.

BUFFALO hunting is becoming more and more popular among our English cousins. It is said that fully one hundred English gentlemen are over in a body for a grand buffalo hunt on the plains. The hunt is to be organized on a magnificent scale. Twenty scouts, headed by Buffalo Bill, will chaperon them, and in addition to a vast retinue of servants, cooks, grooms, valets, etc., they will be accompanied by a brass band, which will discourse sweet music as they gather about their camp-fire to partake of the evening meal of buffalo meat.

NATURALIZATION OF CHINAMEN.—Poland, from the House Judiciary Committee, have reported favorably on Page's bill to restore the law relating to naturalization just as it was prior to the late alteration, in which the omission of the word "white" left the door open for the naturalization of Chinamen. The result will be, should the bill pass, as it most likely will, to prevent the naturalization of Chinamen.

DRAWING TO A CLOSE.—There are now but eighteen days left of the present session of Congress, and but two of the appropriation bills have been finally agreed upon. It will require the utmost diligence in both houses to get through with the appropriation bills and to devise some measures in reference to the revenue which is absolutely necessary. Night sessions are now in order for both houses.

CANAL BETWEEN CHESAPEAKE AND DELAWARE BAYS.—The Secretary of War has ordered a survey to be made to ascertain the best route for a ship canal between Chesapeake and Delaware bays. This looks as if private individuals were seeking to gain a point by having this important improvement declared a military necessity.

THE DEATH RATE.—During last week, seventy-four persons died in this city—fifty-one males, and twenty-three females. Of these, sixty were white, and fourteen copper-colored persons. There were three deaths from casualties, two homicides, and twenty-one died in public institutions. Fourteen deaths occurred in Stockton during January.

STRUCK BY LIGHTNING.—On December 21st, during a storm, a powder magazine at Scutari, Alabama, was struck by lightning. The force of the explosion destroyed a portion of the city walls and several houses. Upwards of 200 persons were killed or wounded.

THE latest bear story comes from Wisconsin. It is that a man, having no weapons, encountered a bear in the woods, thrust his hand into the animal's mouth, seized its tongue and twisted it so vigorously that after a short struggle the bear was glad to wrench itself free and escape into the thicket. Another story of the same date is to the effect that two children, while on their way to school, recently, at a village about twenty miles from Madison, Wisconsin, were killed and mutilated by wolves.

POSTAL CHANGES.—The following postal changes have been ordered for California Offices Established.—At Baird town, San Bernardino county; W. T. McGee, Postmaster. At Gas Point, Shasta county; John S. Williams, Postmaster. Office Discontinued.—High Valley, Lake county; Peteville, Shasta county. Name and Site changed.—St. Lawrenceburg, El Dorado county, to Kelsey, and August Seisnopp appointed Postmaster.

REPAIRING THE DAMAGES.—Yuba county is about to issue bonds to the amount of \$10,000 to repair the damage done to her roads by the late flood. Governor Stanford, of the C. P. R. R., has kindly offered the services of two of his best engines to aid in the work. The offer has been accepted.

COLLEGE BUILDING BURNED.—Taylor Hall, used for the Collegiate department of Racine (Wis.) College, burned on Thursday of last week, with nearly all the contents, many students escaping with nothing but their night-clothes. Total loss, about \$60,000.

HUNTING POTATOES.—Mark Twain has a brother named Orrin. He lives near Keokuk, Iowa, and is a hunter. He hunts after potatoes with a hoe.

CARRIER PIGEONS.—A regular service of carrier pigeons is now being actively organized by the French Government. Germany has a similar service.

Agricultural Items.

SHEEP.—The sheep men, says the San Benito *Avalanche*, are rejoicing over the favorable season for lambing. Good reports reach us from all the camps south of Hollister. On the San Benito, Tres Pinos, Panoche and other sheep districts the increase is reported to be fully 100 per cent.

A LARGE WHEAT TRAIN.—A train composed of 73 cars loaded with wheat arrived at South Vallejo on Friday afternoon. The grain is a portion of the Glenn wheat, of which there are 12,000 tons, and was brought from the upper Sacramento by the way of Knight's Landing.

CATTLE PEST IN EUROPE.—The cattle pest continues to rage in Russia, not less than 300,000 animals having perished from it last year. The last opinion seems to be that the railroads are among the cause of harm and that veterinary inspection is not to be relied on.

THE RIGHT KIND.—A class of well-to-do farmers are crowding into the county, says the Kern county *Courier*, and are buying out that large class among us who are in occupancy of portions of the public domain without the means of doing anything in the way of cultivation or improvement.

KEEPING APPLES IN WINTER.—To keep winter apples from decaying, says an exchange, wipe them all with a rag or a soft brush. Do this two or three times and you will have good apples on hand until they come next season.

TOBACCO IN SANTA BARBARA.—In the vicinity of Santa Barbara a farmer last year raised over 60,000 pounds of Florida tobacco on thirty acres of land. He has sold the same at forty cents per pound for Eastern shipment.

TAMING A MOUNTAIN SHEEP.—A mountain sheep was lately found running with a band of cattle near Unionville, in Humboldt county. It was lassoed by the owner of the band, and is now as tame as an ordinary cosset.

HORSE CLIPPING.—Vanderbilt has pronounced against horse clipping, as practiced in New York in the winter months. He thinks the late mortality among blooded stock is largely due to that practice, and suggests that Mr. Bergh should get after the clippers.

SALES OF FARMING LANDS.—Senator Jones has purchased the Rancho San Vincent Santa Monica, Los Angeles county, for \$162,500. Mr. Joaquin Beldado, of San Francisco, has sold to E. Hernandez, of Tres Pinos, his farm at the latter place for \$140,000.

ARTESIAN wells have been successfully sunk in the Sonoma meadows, finding excellent water at from 150 to 250 feet in depth. Such wells, with iron tubing, cost from \$300 to \$450 each.

MESQUITE grass is being sown extensively in Lake and Mendocino counties. It is said to be fine for hay, and rich green feed. Neither frost, wet nor ordinary dry weather affect it.

HOPS.—The hop growers of Ukiah, Mendocino county, have commenced pruning. Roots are worth \$5 to \$7 per bushel, and not enough to supply the demand.

FLAX.—The cultivation of flax on the Sacramento river is attracting considerable attention at this time.

LANE'SHEIM & Co. have 2,000 acres ready ploughed for wheat in the Cajon valley, and will plough about 300 acres more.



Lift a Little.

Lift a little! lift a little!
Neighbor, lend a helping hand
To that heavy-laden brother,
Who, for weakness, scarce can stand;
What to thee, with thy strong muscle,
Seems a light and easy load,
Is to him a ponderous burden,
Cumbering his pilgrim road.

Lift a little! lift a little!
Effort gives one added strength;
That which staggers him when rising
Thou canst hold at arm's length.
Not his fault that he is feeble,
Not thy praise that thou art strong;
It is God makes lives to differ,
Some from weeping, some from song.

Lift a little! lift a little!
Many they who need thine aid;
Many living by the road-side,
'Neath misfortune's dreary shade,
Pass not by, like priest or Levite,
Headless of thy fellow-man;
But, with heart and arms extended,
Be the Good Samaritan.

Farm House Chat.

[Written for the Press by MARY MOUNTAIN.]

Will it do any good to scold about injurious fashions, and try to persuade women to rebel quietly and firmly against them?

So many women are sensible and capable in all other matters; but when they come to the important business of dress there is great loss of self-reliance; either through direct fear of Grundy, or the consciousness that a small and feeble resistance counts as nothing against the tremendous current of fashionable conformity. And "fashionable conformity" means a great deal more than the make-up of the outward man or woman, and would include the mental outgrowth and fashioning of souls into all sorts of intricate patterns, orthodox and otherwise. This is a pretty broad subject and pretty well skirmished over already by pens of different caliber. So there is no sermon impending from that text to-day; but let me say just one thing that I like to believe; never before in the world's history, have there been so many people capable of thinking and deciding for themselves in all matters pertaining to the real welfare of the soul and body. And now that I have broadened into that big assertion it is quite a hardship to narrow back to my special topic and recall one remonstrance against an injurious fashion that did at first seem almost absurd in its feebleness. But there were several women who dared to pity themselves and their children enough to declare war against

Those Wicked Bootheels.

Every pair of new boots purchased by those rebels had to be shorn of one-third or one-half its fashionable glory of heels, and the vexation of so much cutting and slashing finally resulted in urgent appeals to the headquarters of the great boot business. Broad and well placed heels are now offered for old foggy admiration, and if not generally adopted, let us hope at least that the feet of the little children will be made more comfortable and all the tender toes relieved from the "corning" process.

I heard one little girl complaining of her corns but she was only laughed at as if it was a good joke. When the little one persisted and cried out: "O, they do ache so!" the mother was almost vexed and said: "Now, what nonsense for a child to be fretting about corns. You might as well go bare-footed and stub your toes like the little girls did when I was young. There were no such pretty boots in those days, and you ought to be thankful." And the little martyr of an absurd fashion pulled on her pretty boots and hopped off, wishing she could go barefoot long enough to cure her sore toes, and she didn't know what to be thankful for.

I have been to town again—not exactly in the interest of dress reform—but I "improved the occasion" and studied the women who drag their clothes about the streets. In the case of the careless, easy going woman there is not much harm done. She never frets over anything—thank heaven—and if fashion bids her draggle about in the dirt she can do it with perfect serenity. But the neat woman who trails her dainty garments in improper places is haunted and hurt continually by the thought of gathering impurities. True, she marches bravely on, and if she cannot easily go around the tobacco shops and other filth she gallantly ignores them or gives the heavy drapery a furtive twitch with the hope of leaving some for the next woman to sweep up. The effort seems to be to impress beholders with the idea that she cares nothing for her clothes, when, in fact, she hardly forgets them for a moment, and goes home completely fagged with the worry of this

strange ignoble fashion. And the delicate woman is well nigh vanquished by the weight of her trailing finery and has very little strength for the public business of street sweeping.

A lady in San Francisco rejoices in a new suit, the skirt of which, covered with trimming and bugles weighs fifty (50) pounds. Many ladies may be more heavily draped for ought I know, and in that case my lady's skirts is not worth mentioning; but to country ears it sounds quite remarkable, and we hope the lady is strong and hearty. Very few men would undertake to carry such weight, either for business or pleasure.

Our genial friend, the Doctor, had a birthday (number of years no consequence when hearts are forever young) and being there to "assist," I had the pleasure of meeting a lady from Wyandotte, Kansas. Among our memories of pioneer life on the border, during those stirring times when Kansas topics filled the country, one central figure of a woman stands pre-eminent, central and chief as of one we delight to honor. A woman who toiled side by side with liberal-hearted men; not for herself, but that all the women of that broad new State might have a certain vantage ground of privilege, which, if not quite freedom, was still a step in advance of what had been obtained in older communities. Kansas men and women are proud of their State constitution, and I hold in grateful remembrance the brave souls who battled for it through much tribulation. And this woman, who gave all her energies to this work, is by no means forgotten now, when the strife is over and thousands enter peacefully in to enjoy the fruits of her toil. Her name is tenderly cherished and was mentioned to me with a glow of affection that made the eyes shine; and now you all want to know who she is? No other than our rural friend, Mrs. C. J. H. Nichols; and I hope she will some day fight her battles over again and give us a leaf from the "Kansas campaign."

How to Reduce Gas Bills.

Probably not one person in ten who pays gas bills knows anything about his metre, much less how to read its record; and, from personal experience, I can assure all such that it pays, in more ways than one, to be possessed of such knowledge. Do we burn our lamps all day, or extinguish them, to save consumption? Be equally careful with your gas, and remember that you have not stopped consumption when you have simply turned it off at the burner. You can save one-tenth of your gas bill by going each night, or morning, when you need no more light, and turn it off at the metre; and the greater the length of pipe in your house, the larger in proportion will be your saving; for, no matter how tight and perfect your fittings, there is also some leakage. This you save, if nothing more. Again, gas if always condensing, and the waste from this cause alone, at times, is beyond calculation, and in certain qualities, and at certain seasons, is greater than others; and here, too, the greater the length of the pipe the more waste.

Now, it is expected that every foot of gas which passes through the metre into your service-pipes is registered. I think I hear you exclaim, "Would to God it did no more!" It follows then that if the gas is shut off before it gets into the metre there can be no registration. Have you never heard your metre giving forth a crackling, snapping sound in the daytime, when you were using no gas? It is recording this waste, the leakage and condensation; and you will find it dollars and cents in your next bill. But there is still another saving. If each one of those persons who complained that their bills present great irregularities will learn to read the metre, and on the day when the company's agent calls to "take it," "take it" also themselves when he is gone, they will find, as many others have found, a very large-sized African stowed away among the figures rendered in the company's bill. I do not mean to say there is any dishonesty. But I have known very great mistakes to happen, and to the credit of the companies, I will say that they have always corrected them when shown.—*Chicago Tribune.*

How Boys are Spoiled.—There are few boys who are taught modesty at home, made to obey their parents, taught to respect their elders, that would be guilty of what is charged by these ladies. Our boys in Antioch are allowed to perambulate the streets at late hours of the night; they learn to smoke, chew, play cards and gamble; they hear all manner of stale jokes, slang phrases, rough, vulgar language; they at times may be seen in saloons intently watching games of chance. These boys, like all children, are great imitators. What wonder, then, that they rehearse what they have learned? What wonder they use such vile language? Home is the place to correct these evils, or, rather, the place to keep the boys that they may not come in contact with that large class of floating population, to be found in every California town, whose words are not such as parents wish their children to imitate. There is lack of discipline somewhere. Society is too loose; better adopt the rigid training of the old Puritan school, and grow up good men and women, than to allow the children to be contaminated with all the vulgarity, obscenity and bad practices of bad men.—*Antioch Ledger.*

Fashions for February.

Individual taste in the matter of fashion is becoming more and more powerful. Fashion no longer holds perfect sway, and all sensible women should make good use of the privilege now so universally accorded for exercising individual taste—to the end that it may become a fixed law hereafter.

At this season of the year—February—and especially here in California, individual taste has its fullest sway, and almost anybody might make her own fashion and not be unfavorably criticised, provided she keeps within reasonable bounds. The prevailing fashion at the present time is given substantially as follows:

Wear short dresses in the street, demi-trains in the house, and regular train for evening dresses. Over-skirts with jannity basques, polonaises and plain or full trimmed skirts, are equally fashionable. For walking costumes, the heavy woolen fabrics are still in favor, and nothing can be more suitable or appropriate. The colors are gray, brown, zinc, slate, dark-green, blue and black. The various shades this winter for evening toilets are indescribably beautiful and delicate, enhanced by the masses of lovely flowers and foliage so profusely used upon dresses this season. Ball and evening dresses for young ladies are made almost universally of thin material, whereas those of young married ladies are a combination of silk or crepe lisse and tulle, organdy and tarlatan.

Where light, airy trimmings are used, an old silk can be nicely retrimmed with pnffs and pleatings of tulle or tarlatan, and be made to look bright and fresh as new. With silk skirts the triple apron front of white, gauzy material, each one bordered with a vine of green leaves, is much admired this season. Outside wraps, hats and bonnets are as individual in their style as costumes, and if ladies could be persuaded to wear only such as were becoming, there would be nothing more to wish for. Walking jackets long and short, single and double breasted, with and without taps, long saques, short saques, polonaise and paletots, are seen upon the promenade in amiable sociability, each one fondly imagining that it is the most fashionable.

In hats we have had many prophecies to the contrary, but modern taste does not seem just yet to run into simplicity. Where gros grain is now used for trimming, the edges all around are raveled out instead of being lined as heretofore. Sometimes these scarfs are long enough to be crossed in the back, and fastened on the bosom with a cluster of flowers. Scarfs of this description for evening wear are made of black or white tulle, simply hemmed. Valenciennes lace is used for trimming evening hats. In trimmings, the new and handsome braids seem just now to become the leading article for spring suits, both for ladies and misses. Velvet also will be again in favor, both black and colored.

In children's fashions, the tendency seems to be toward practical, useful, easy and healthful modes. Very pretty costumes for little ones are made of black and white plaid, all wool serge, with sleeves and jacket of German velvet or American silk. These are both durable and cheap. These pretty suits can be made with plain colored sleeves and trimmings upon the plaid. The short jacket and long walking coat are both made for misses and little girls.

Charge It.

A simple little sentence is this, to be sure, and yet it may be considered as one of the most insidious enemies with which people have to deal. It is very pleasant to have all the little commodities offered for sale in the market, and it is hard to deny one's self of the same when it can be obtained by saying "charge it." But this habit of getting articles, however small the charge may be, without paying for them, keeps one's funds in a low state most of the time.

"I have no money to-day, but should like the article very much."

"Never mind," says the gentlemanly clerk, "you are good for it."

"Well, I will take it and you may charge it."

And so it is that little accounts are opened at one place and another, till the young man is surprised at his liabilities.

In many instances, if the cash were required, the purchase would not be made, even had the person the money by him; but to some, getting an article charged does not seem like parting with an equivalent.

Still when pay day comes, as always it does, this delusion vanishes, and a feeling is experienced of parting with money and receiving nothing in return.

If there is an actual necessity of making a purchase, and the means are not at hand, there is a reasonable excuse for obtaining the same on credit; but when the article can be dispensed with until payment can be made, it is much to the advantage of the purchaser to do so.

A WIDOW WORTH HAVING.—Widow Phila Lambert, of West Georgia, Vt., fifty-six years old, has for fifteen years supported eight children by laying stone wall, harvesting and other heavy farm work, and has not only made herself owner of a house and a few acres of land, but has given her children a good education.

A WOMAN'S WILL.—The late Julia Smith, of New York, bequeaths her husband "one dollar and her forgiveness;" the remainder of her estate, some \$40,000, she bequeaths to her niece.

Manners of Young Ladies.

This is a very important subject, and one which should be well studied by every young lady while at school, for if she does not accustom herself to being polite, not only to her teacher but also to her companions, she will find it difficult, when entering society, to practise what she never acquired. True politeness has its origin in the heart. Due respect should be paid to the aged. If on entering a church or car, it be so crowded that she finds it impossible to obtain a seat without causing some old gentleman to rise, a lady should prefer to remain standing rather than incommode the aged. There was a time when grey hairs were respected, but, alas! it is fast passing away. The old must too often give place to those full of youth, though the latter be better able of undergoing fatigue.

When attending public places of amusement, young ladies cannot be too quiet. Their constant chatter is very annoying to those who have come to hear. It is not only ill-mannered, but it is very unjust to deprive those persons of their rights. They should know when "silence is golden."

Politeness must become a habit; it cannot be put off and on at pleasure, as we can change our dress. As an education is necessary to gain the esteem of mankind, politeness is necessary to be agreeable in conversation. It is extremely rude not to pay attention to one who may be speaking to you; inattention proves ill-breeding. We should not be exact in all we say, otherwise, instead of informing or entertaining our friends, we will only weary or puzzle them. We should speak distinctly, and not half swallow the words we are uttering. Some may have acquired a habit of speaking very loud, as though they were conversing with people who are deaf, and they thus give the idea to their friends that they are boisterous.

These, and many other points may be considered trifling, but inattention to them may place us in an embarrassing position; while by observing them, we feel at ease when surrounded by others. Our life is made up of little things, therefore we should not despise even the smallest, but by close attention attain as near perfection as it is possible for human nature to reach.—*Cor. Call.*

Womanly Dignity.

Some one writing of womanly dignity says in the *Saturday Review*: But there are various kinds of dignity, and if some are more exasperating than others, some are very lovely, and among the greatest charms of womanhood. There is in particular that soft dignity which belongs to women who are affectionate by nature and timid by temperament, but have a reserve of self respect that defends them against themselves as well as against others. These have a quiet dignity, tempered by much sweetness of speech and manner, that is the loveliest kind of all, and the most subtle as well as the most beautiful. They are like the Lady in Comus, and seem to cast the spell of respect on all with whom they are associated. No man, save of the coarsest fiber, such as only physical strength can control, could be rude to them in word or brutal in deed; for there is something about them very indefinite but very strong withal, which seem to give them special protection from insolence; and a loving woman of soft maners, whose mind is pure and who respects herself, is armed with a power which none but the vilest can despise. This is the woman who gets a precise obedience from her servants without exacting it, and whose children, do not dream of disputing her wishes; who, though so gentle and affable, stop short of that kind of familiarity which breeds contempt, and with whom no one takes a liberty. For this one can scarcely give a reason. She would not rant or rave if she was displeased, she would not scold, she would not strike; but there is a certain quality in which we may not be able to familiarize, yet which would make us ashamed to pass beyond the boundaries of the strictest respect, and which restrains others less consciously critical than ourselves as certainly as fear. It is respect we pay to those who respect themselves; the consideration and honor which all real purity of nature demands and obtains. This is the womanly dignity in its loveliest aspects, the kind we all desire to see in women whom it would not harden, nor render less loving.

SENSIBLE ON LEARNING HOW TO COOK.—George Augustus Sala, who knows all about cooking, just as he knows all about balloons and everything else, maintains that all your public schools of cookery are so much moonshine and amiable lunacy. The way to learn to cook is not to make an exhibition of one's self in public, but to descend into one's own kitchen, there to learn the process of roasting, boiling, baking, frying and stewing, and to study the mysteries of peeling potatoes, of slicing carrots and turnips, of rolling pie crust, of whipping cream and eggs and of scrubbing pots and pans. There may be nothing "nice," nothing titillating and nothing piquant about this schooling, but it's the way, nevertheless, says George Augustus.

A BEAUTIFUL TABLE COVERING.—At a dinner recently given by a Russian lady in London, the table was entirely covered by moss, and the only evidence of a white table-cloth was seen in that portion which hangs at the sides of the table. Flowers were profusely introduced, and the effect was altogether unique.

Golden Words on Marriage.

The *Golden Age* thus concludes an article under the caption of "Why don't they Marry?"

There is no question that our costly style of living, in cities, diminishes the number of marriages, and indirectly recruits the ranks of the vicious and depraved. So long as fashion demands a style of living which only millionaires can really afford, and a young married couple must support an expensive establishment or be excluded from the circle in which they moved before marriage, a bar is raised to matrimonial engagements which only the very courageous or very unscrupulous will have the hardihood to overstep. The opportunities and eures to a single life of easy indulgence and dissipation, have a constantly increasing influence over the young men of our cities, while a continually increasing number of young ladies are educated to a life of ease, display and extravagance, which only a few young men can possibly support them in, and be honest. So our fashions put a premium upon bachelorism and vice on one hand, and untold waste on the other.

What is wanted more than anything in our society to-day, is the courage on the part of the young men and women to break away from the present thralldom, and set a new and nobler fashion of independence and economy. A score or two of examples of that heroism which defies the foolish sentiment and custom of the time, and dares be true to the noble instincts of the heart, and live simply and honestly in a small quiet way, would create a reform, if not a revolution. The question comes to a very young heart, what are the shows and shams of society? Alas, that so many yield the former to the latter. For love is the religion of the young, and whoever suppresses it for the sake of ease or display, whoever sacrifices it for fashion, commits a sacrilege for which nothing can atone. Love is not a thing to be ashamed of or laughed at, and at any sacrifice it may require, is cheap so long as it adds fuel to the precious flame which purifies the heart, refines and ennobles the character, and makes a manhood and womanhood worth the name.

THE SONG OF SIXPENCE.—Mr. Tyler in his "Primitive Culture," thus applies to this work the law of the interpretation of myths: Obviously, the four and twenty blackbirds are four and twenty hours and the pie which holds them is the underlying earth, covered with the overarching sky. How true a touch of nature it is, when the day breaks the birds begin to sing! The king is the sun, and his counting out his money in pouring out the sunshine, the golden showers of Danae. The queen is the moon, and her transparent honey the moonlight. The maid is the rosy-fingered dawn, who rises before the sun, her master, and hangs out the clouds, his clothes, across the sky. The particular blackbird who so tragically ends the tale by snipping off her nose is the hour of sunset.

GROWTH OF CHILDREN.—An old citizen of Dayton, O., who has raised two families, has been for many years in the habit of observing, among other things, the growth of the boys and girls, and makes some surprising assertions. He takes their measure in January and July, and has discovered that growing children grow far more between January and July than in the other half of the year. In fact, almost the entire growth of the year is during the former period. This philosopher infers from this that all nature is harmonious, and that the physical growth of humanity is governed by the same laws which prevail over the vegetable kingdom.

STATISTICAL.—The following statistics about women may prove interesting: Women printers were known half a century before the revolution. A woman, Margaret Draper, of Boston, conducted the first newspaper in America. The original Declaration of Independence was printed by Mary Catharine Goddard. Four ladies of position in London have become decorative artists. Out of the entire quantity of silk imported into America last year, if equally divided, each woman would have five dollars' worth. Mrs. Sanderson, of Albany, has lost two sons by elopement, and has shut up the third, so that he cannot behold a woman with his right eye!

MORE THAN THEIR RIGHT.—Mrs. Livermore thinks that Massachusetts women have in some respects got more than their rights. The last Legislature passed a law under which a wife may go into business on her own account, and no matter how much money she may make, or how poor her husband may be, can force him to support her. Mrs. Livermore regards this as unjust to husbands and unasked for by wives.

MAN is the one universal dangerous animal. Of all the wild brood of God's creatures in the field, forest and flood, not a thing loves to keep company with him. If there is some sort of universal sentiment among the lower tribes, it is that man is a cruel and unsocial creature. And so we are shut out. Bugs run away from us, birds fly away, fish swim away. Man is the center of repulsion. What does he care. In general, nothing.—Beecher.

A MYSTERY.—It is a deep mystery—the way the heart of a man turns to one woman out of all the rest he's seen in the world, and makes it easier for him to work seven years for her, like Jacob did for Rachel, sooner than have any other woman for the asking. I often think of those words: "And Jacob served seven years for Rachel; and they seemed but a few days, for the love he had to her."—George Eliot.

YOUNG FOLKS' COLUMN.

Our Boys.

A correspondent from Modesto, writes as follows with regard to an item which appeared in this department some three weeks ago, about that boy, ten years old, who cannot get out of bed in the morning and find his hat and shoes without half an hour's hunt: I know two (only one of them is twelve) the other ten, who can get out of bed and dress in ten minutes; can harness, curry and feed four horses apiece before breakfast, and then finish the day's work by plowing three and a half acres of ground each, seven inches deep, and take care of their teams at night. These boys do not chew, or smoke, or swear; they can read or spell as well as any boy of their age in the county, or perform as difficult examples in arithmetic, understand something of geology, grammar, geography and botany, and they intend to earn their own living and a good education besides. Shall one of them come for the eleven dollars? However, they cannot leave the plowing.

Those two boys are certainly deserving of the "eleven dollars" and more too. But as we can't measure worth by money, we will hold them up as examples for all the other boys in California.

There is a great deal said that is not very complimentary about "our boys" in California; but we are inclined to think the character of the boys here have not been fairly represented. There are bad boys here, of course, as there are in all localities; but we believe that California boys are fully up to the average of those of any other State in the Union. We believe there can be many boys found in this State whose record is quite as good as that given above of our two young friends in Modesto. Boys, what do you think of it? We should like to hear from some of our young friends, who are readers of the RURAL.

Little Mary in the Desert.

"Alice," a contributor to a popular magazine tells of a little grave which she found among the bleaching bones of the desert, with this inscription on the head board: "Mary, the Pet Lamb—Our only one." The writer adds: "There was no grassy turf with wild flowers, to make a green coverlet for the little one, no low moan of the sea to chant a requiem over its lonely pillow, no voice but the vulture's by day and the hoarse growl of the wolf by night. All is a dreary desolation."

We guess not, Alice! Where the dust of innocence sleeps, all is *not* a desolation; no matter whether it be in the deep solitude of the wilderness where the cataract lifts its thundering voice higher and louder, in the vain effort to reach the ears of living human or to wake the slumbering dead, no matter whether it be deep in the desert where no dew drops ever fell from the robes of night or tears from the eye-lids of the morning, there is still an invisible presence lingering about the grave of the sinless child which wars perpetually with desolation; there are feet treading on the sand which leave no track save the foot-prints of angels, and there is a voice, not loud, but deep and full of the eloquence of immortality which says to silence even where she thought to reign forever, "I am the resurrection and the life!"

A CUTE LITTLE GIRL.—A New Hampshire newspaper tells about a little six-year-old girl in a country town in that State who went into a store where her father was lounging, the other day, and slyly approaching him, said: "Papa, won't you buy me a new dress?" "What, buy you a new dress, Susy?" "Yes, papa, won't you?" "Well, I'll see, I'll speak to your mother about it." Elongation to an alarming extent rapidly spread over the little face, but a thought suddenly struck her, and with a smile she looked up into her father's face and said, "Well, papa, if you do speak to mama about it, touch her easy, or she may want the new dress herself!" The father at once saw the point, and the new dress was purchased without consultation.

DELIBERATE WORKERS are those who accomplish the most work in a given time, and are less tired at the end of the day than many who have not accomplished half as much; the hurried worker has often to do his work twice over, and even then it is seldom done in the best manner, either as to neatness or as to durability. It is the deliberate and measured expenditure of strength which invigorates the constitution and builds up the health.

RECOVERED HIS STAR.—A few days ago Officer Seybold, while arresting an intoxicated baker in a bakery on Mission street, lost his badge of office. Yesterday it was returned to him by a boy who stated that his mother had found it in a loaf of bread, which had been purchased at the bake-shop from which the drunken manipulator of dough had been arrested.

LETTERS TO BOYS.—We have received two more "Letters to Boys" from our New Hampshire correspondent, which will appear next week.

GOOD HEALTH.

Organic Matter in Water.

Water enters so largely into everything that relates to life and health, that we ought never to tire of the study, especially of all the sanitary phenomena connected with that element. The London *Chemical News*, in reviewing a recent French scientific work, by Henri de Parville, makes the following interesting and suggestive extracts and remarks:

"How does organic matter become dangerous? The phenomenon is complex. The organic matter in suspension or in solution creates in the water a peculiar medium, suitable for the development of exceedingly small beings of the genus *Vibrio*. It is no longer mere water—it is a world of microscopic animals and plants which are born, live, and increase with bewildering rapidity. The infusoria find in the water calcareous, magnesian, and ammoniacal salts, and their maintenance is thus secure. Drink a drop of this liquid and you swallow millions of minute beings. There are those which are capable of setting up putrefaction in our tissues. These are our enemies; often our mortal enemies. Let water be placed in contact with organic remains capable of nourishing these malignant *vibrios*, and it at once becomes more dangerous than any poison."

The author points out that, according to the researches of the late Dr. Calvert, charcoal, lime, and permanganate of potash, contrary to the received opinion, facilitate putrefaction and actually promote the formation of animalculæ. Charcoal when used for the purification of polluted waters, undoubtedly absorbs into its pores offensive gases held in solution, as well as liquid coloring and flavoring matters. It can render such waters colorless and tasteless. But upon living animalculæ and their germs it is absolutely powerless. Nay, water containing a known amount of "albumenoid ammonia" when experimentally filtered over animal charcoal has been found on analysis worse than before. Permanganate of potash may oxidize—in fact, burn up—dead organic matter suspended or dissolved in water; but upon living organisms it is almost powerless. We have seen animalculæ remain in full life and apparent vigor for hours in water to which permanganate had been added in a large proportion. M. Davaine found that putrid blood after treatment with charcoal became more putrid than before. It is possible that the gases dissolved in the liquid hinder the development of the infusoria. The author considers carbolic, or better still cresylic acid, as the only agent which extirpates these animalculæ. According to Woehler, alumina in the gelatinous state precipitates the dissolved animal matter which serves as a pabulum for these minute animal and vegetable beings. The experiments of M. Davaine on the power of antiseptics to destroy the virus of carbuncle belong rather to medicine than to chemistry. Solution of iodine seems the most effectual remedy.

How to Distinguish Good from Poisonous Mushrooms.

So many deaths or severe cases of poisoning occur from eating poisonous mushrooms, that it is very important to know how to distinguish the good from the bad. The following is given by Prof. Bentley, which, though not full or unerring, gives the general characteristics which the edible or under trees and poisonous species of fungi may best be distinguished:

The edible mushrooms grow solitary, in dry, airy places, and are generally white or brownish; they have a compact, brittle flesh; do not change color, when cut by the action of the air; juice watery, and odor agreeable; taste not bitter, acrid, salt or astringent.

The poisonous mushrooms, on the contrary, grow in clusters in woods, and in dark, damp places, and are usually of a bright color; their flesh is tough, soft and watery, and they acquire a brown, green or blue tint, when cut and exposed to the air; the juice is often milky, the odor commonly powerful and disagreeable, and the taste either acrid, astringent, acrid, salt or bitter. These characteristics are almost invariable.

WEAR AND REPAIR OF THE BRAIN.—The notion that those who work only with their brains need less food than those who labor with their hands has been the cause of untold mischief. Students and literary men have often been the victims of a slow starvation, from their ignorance of the fact that mental labor causes greater waste of tissue than muscular. According to a careful estimate, three hours' hard study wears out the body more than a whole day of work on the anvil or farm. "Without phosphorus, no thought," is a German saying; and the consumption of that essential ingredient of the brain increases in proportion to the amount of labor which the organ is required to perform. This wear and tear of the brain are easily measured by careful examination of the salts in the liquid excretions. The importance of the brain as a working organ is shown by the amount of blood it receives, which is proportionally greater than that of any other part of the body. One-fifth of the blood goes to the brain, though its average weight is only one-fortieth the weight of the body. This fact alone would be sufficient to prove that brain-workers need more food and better than mechanics and farm laborers.—*Builder*.

DOMESTIC ECONOMY.

Good Food for Working Men.

How much pleasure is lost and how much material is wasted by a lack of intelligent cooking, too many think that neither science nor art has anything to do with the duties of a cook. And yet we all know from pleasant as well as sad experience, that some cooks will prepare a most tempting repast from materials, which in the hands of another, will come on to the table so ill prepared as to need a most ravenous appetite to induce one to eat.

The hard work of the farmer or mechanic so sharpens his appetite; the rugged health of the family caused by abundant exercise in the open air and the multitudinous duties of the housewife, all lead us to fall into careless habits in the selection and preparation of our food.

While we are aware that economy on every hand is necessary to the success of the farmer above every other class of working men, we can see not the slightest reason why he should not live well. There are many delicacies within his reach. He can have his varieties of fresh garden vegetables, his plenteous supply of poultry, fresh eggs, choice gilt-edge butter, milk and cream in abundance, plenty of fruit, etc. Why should he live poorly? Because in far too many instances all these resources from a lack of intelligent and pleasing cooking are not used to advantage.

The housewife does not use the material at her command understandingly. The bread will be made always in the same way. The potatoes will be boiled for every meal in stereotyped fashion; the meats ditto, and the farmer's table which could be most invitingly supplied, is generally coarsely laid.

This is not always from a lack of knowledge, as is proven by the inviting repasts which are temptingly placed upon the table when company is invited. But in such households it is due to a careless lack of forethought and a want of appreciation of good food.

Scientific economy is lost sight of in our living. How seldom do we stop to count the cost of a meal, or of any particular plan of living. We do not recommend extravagance in food, but ask the lady members of our Order to give careful intelligent thought to the preparation of their meals.—*Husbandman*.

TO STEAM A TURKEY.—All of us are used to roast and boiled turkey, but a steamed turkey is more of a novelty, while it is also a most delicious dish. Cleanse the fowl thoroughly, then rub pepper and salt well mixed into the inside of it. Fill up the body with oysters mixed with a small cupful of bread crumbs. Sew up all the apertures; lay the turkey into a large steamer and place over a kettle of boiling water, cover closely, and steam thoroughly for two hours and a half. Now take it up; set the platter in a warm place, and turn whatever gravy there is in the steamer, straining first into the oyster sauce which you have prepared in the following manner: Take a pint of oysters, turn a pint of boiling water over them in a colander. Put the liquor on to boil, skim off whatever rises to the top. Thicken it with a tablespoonful of flour rubbed into two tablespoonfuls of butter; season well with pepper and salt. Add two or three tablespoonfuls of cream or milk to whiten it, and pour it over the turkey and platter; serve boiling hot. This sauce must be made while the turkey is still in the steamer, so that it can be poured over the turkey as soon as it is taken up.

SNOWFLAKE CAKE.—Take a half cup of butter, two cups of white sugar, four onps of flour, one cup of sweet milk, three eggs, one teaspoonful of cream-of-tartar, and one-half of that quantity of saleratus. Stir butter and sugar together, add the beaten yolks of eggs, and half the flour with the cream-of-tartar in it; turn in nearly all the milk, dissolve the saleratus in what is left and add it. Beat the whites of the eggs and mix in; stir in remainder of the flour. Bake in jelly-cake tins. Grate the meat of two fresh cocoanuts after paring off the outer skin; add to them one cup of sugar and the beaten white of two eggs. Spread between the cakes, which should have been baked in three pans. Heap the cocoanut very high on the top of the uppermost cake and scatter sugared almonds among it.

POTATO FRITTERS.—Boil two large potatoes, mash them well, beat four yolks and three whites of eggs, and add to the above, with one large spoonful of cream, another of sweet wine, a squeeze of lemon, and a little nutmeg. Beat this batter half an hour at least. It will be extremely light. Put a good quantity of fine lard in a stewpan, and drop a spoonful of the batter at a time into it. Fry them; and serve with a sauce composed of a glass of white wine, the juice of a lemon, one desert spoonful of peach-leaf or almond water, and some white sugar warmed together, or the common wine sauce.

GERMAN APPLE PUDDING.—Take a deep tin pudding dish and cover it with a layer of the best pie crust. Have some good, tender apples cut fine, and spread over the paste; a layer of apples, with sufficient sugar for sweetening, and cinnamon and nutmeg to taste; again a layer of apples, etc., until your dish is filled, when you pour over it a tea-cup full of cream, add your cover and bake to a light brown.



PUBLISHED BY
DEWEY & CO.
A. I. DEWEY, W. B. EWER, G. H. STRONG, J. L. BOONE
PRINCIPAL EDITOR.....W. B. EWER, A. M.

OFFICE, No. 224 Sansome street, Southeast corner of California street, where friends and patrons are invited to our SCIENTIFIC Press, Patent Agency, Engraving and Printing establishment.

SUBSCRIPTIONS payable in advance—For one year, \$4; six months, \$2.25; three months, \$1.25. Remittances by registered letters or P. O. orders at our risk.

ADVERTISING RATES.—1 week. 1 month. 3 months. 1 year
Per line.....25 .80 \$2.00 \$5.00
One-half inch.....\$1.00 \$3.00 \$7.50 24.00
One inch.....2.00 5.00 14.00 40.00

Large advertisements at favorable rates. Special or reading notices, legal advertisements, notices appearing in extraordinary type or in particular parts of the paper, inserted at special rates.

No Quack Advertisements inserted in these columns.

SAN FRANCISCO:

Saturday, February 13, 1875.

TABLE OF CONTENTS.

GENERAL EDITORIALS.—Two Crops in One Season; The Increase of Improved Stock; The Ruins at Santa Cruz; Placer County; Are Raisins a Drug in the Market; The "Rural Press" Among the Weeklies, 97. The University Prizes; Another Outlet for California Products; The Proper Material for Levees; Fast Horses Going Slow; California Tobacco; Rubber Paint; Home-made Agricultural Implements; Economic Botany, 104. Glen Flora Mineral Springs, 105.
ILLUSTRATIONS.—The Ruins Near Santa Cruz Cal.; 97. Economic Botany; Improved Pinking Iron, 105.
CORRESPONDENCE.—Jottings from Healdsburg; From Los Nettos; From Tangent, Oregon, 98.
THE DAIRY.—The National Dairy; Dairy Lands in Los Angeles County, 99.
HORTICULTURE.—Pruning, its Principles and Practice, 105.
USEFUL INFORMATION.—Cement Walls and Cisterns; Chalcedony; To Render Glass Opaque or Frosted, 99.
PATRONS OF HUSBANDRY.—The Business Association; The National Grange; Tulare County Council, 100.
HOME CIRCLE.—Lift a Little (Poetry); Farm House Chat; How to Reduce Gas Bills; How Boys are Spoiled; Fashions for February; Charge It; A Widow Worth Having; Manners of Young Ladies; Womanly Dignity; Sensible on Learning How to Cook; Golden Words on Marriage, 102-103.
YOUNG FOLKS' COLUMN.—Our Boys; Little Mary in the Desert; A Cute Little Girl, 103.
GOOD HEALTH.—Organic Matter in Water; How to Distinguish Good from Poisonous Mushrooms; Wear and Repair of the Brain, 103.
DOMESTIC ECONOMY.—Good Food for Working Men; To Steam a Turkey; Snowflake Cake; Potato Fritters; German Apple Pudding, 103.
POULTRY YARD.—The Poultry Show at Pittsburg, 106.
AGRICULTURAL NOTES from various counties in California, 108.
MISCELLANEOUS.—The Tariff; Natural Phenomena; The Age of Coal; Age of the Australian Gold Drift, 98. General News Items; Industrial Items, 101.

The University Prizes.

Happening to glance over the University prizes for 1874-5, as published in *The Berkeleyan* for January, 1875, we were somewhat surprised at not finding any prize offered for essays on agricultural topics. The first prize on the list is for "the most distinguished graduate of the year." This is all right; but when we find the second prize being offered for "military proficiency," and when we fail to find any prize or inducement offered for any essay or composition on topics connected with agriculture, it seemed to us as though everything was not just right. Engineering, chemistry and mining are not unnoticed, which shows that the managers did not confine their consideration exclusively to the ornamental parts of education, and the omission of everything connected with agriculture may well surprise the community generally, and will perhaps be converted into capital by those who accuse the University of unfriendliness to agriculture. Our respect and admiration for agriculture is not of the jealous type; and in calling attention to this matter we are prompted by a feeling of disappointment, akin to mortification, rather than sensitiveness in regard to any slights that agriculture may receive at the hands of the University. Perhaps we are at fault in our lack of appreciation of "military proficiency," but we don't like this beating of piousness into swords.

ORNITHOLOGY.—A RARE COLLECTION.—Mrs. G. B. Crane exhibited at the Art Association during the late exhibition, a large number of colored drawings of the birds of California, executed by her former husband, Col. Grayson, who is remembered as one of the pioneers in California ornithology. The drawings are models of accuracy, and the coloring truly beautiful and lifelike. We are only able to give this tasteful exhibit a passing notice at present, but will take occasion hereafter to speak of it more fully.

ON FILE.—"White Lies," E. E. A.; "Dress R. Form," and "Take Good Care of Your Zerkants," N. A. P.; "A Beautiful Art," J. C. C.; "More About Old Celium," G. K. M.; "Letter from Onstimba," E. H. R.

Another Outlet for California Products.

From a conversation lately had with a gentleman of some experience in Central American matters we glean a few facts concerning that country which may interest our wheat-producing readers especially; as any country or place which promises to step in and take at fair prices any portion of our tremendous wheat surplus, ought at once to engage attention, and its wants be studied, stimulated and supplied.

Central America, especially the States of Guatemala and Costa Rica, seem just at present very much inclined to rebel against the everlasting frijoles and tortillas of their Mexican neighbors, and to demand a more enlightened and enlightening diet. Corn they can produce in abundance, but this commodity can never supply the place which delicate soda biscuits fill in the repertoire of an appetizing meal. This these people are beginning to find out, and already quite an amount of California-made flour finds its way southward in every steamer. And this, too, is a market which from the very nature of things must continue to expand and increase. Once the want felt and supplied, once let our flour become a staple in their diet and a profitable trade for both parties will be inaugurated. We need their coffees and their sugars, as well as their many tropical fruits, and of their unlimited abundance of these they will only be too glad to enter into negotiations.

Nor would advantage accrue to our wheat-producers and flour merchants alone by cultivating this trade; for having once tasted of our civilized dainties they would speedily demand a great number of our other California products, and article after article would gradually be added to the list until from this small beginning would grow a magnificent trade—one that would interest a great number of our busy producers.

These States are rich in the extreme fertility of their soil, their varied productions, and in their undeveloped mineral resources; and are bound, sooner or later, to take an important position in North-American commerce; and we think it would be well for our go-ahead California people to carefully weigh these matters and act accordingly.

The Proper Material for Levees.

The utility of dredging as a part of tule reclamation has been presented to us by parties who have had experience in this work. Different methods have been proposed by different parties; some advocating the use of material from the river bottom for the foundation of the levee, while others believe that the most practicable method is to use the surface earth mainly for the embankment, and cover it thoroughly with dirt from the river bottom, which will act as a cement, and form a sort of water-proof coating for the whole levee. But that dredging will, hereafter, enter more largely into tule land reclamation, there is scarcely a doubt; for, besides the availability of the material thus obtained, the deepening of the river's channel will be a very important point gained. Mr. L. C. McAfee, engineer in charge of the tules of Staten Island, reports as follows concerning the use of clay in levees:

One of the most noticeable features of the late freshet was the freedom of the remainder of the levee from breaks. All of the levee, except that already mentioned, consists of a foundation of peat, on which a covering of yellow clay, taken from the banks of the river, has been put. None of this levee gave way, though the water ran over it in many places. Levees of peat only of the same dimensions and under similar circumstances broke to pieces. The special fitness of this outside material for leveeing is clearly demonstrated, and no expense should weigh against the use of such excellent earth as can be found on the margin of the lands to be reclaimed. Dredging will yet play a prominent part in the reclamation of tule lands, and the sooner it is begun the sooner will the oft-repeated story of overflow and loss cease to be told.

Fast Horses Going Slow.

A forced sale of fast horses took place in this city last week, at which some of the most popular favorites of the turf were sold at truly ruinous prices—ruinous to the sellers and possibly to the buyers also. Thad Stevens sold for \$1,125. The bay stallion Monday brought \$500. Nell Flaherty was knocked down at \$1,000. The chestnut stallion Venture brought \$1,200. Mattie Howard was sold for \$550. Some other fast horses of less note were sold at correspondingly low prices.

All of the above named horses have strutted their brief hour upon the race track, and some of them have been immense favorites. Reports of their achievements have gone "neck and neck" on the telegraph wires with those of the most momentous importance to the world. They can probably repeat the same performance, for none of them are past their prime. They are sold for no fault of their own. If there is any fault in this connection it is on the part of the supporters of the turf in not coming down with a sufficient amount of corn to support them and their owners in a style fitting their supposed position.

California Tobacco.

This is another crop that has proved a success in California. The yield of tobacco per acre was proved to be satisfactory in the first seasons of its growth here; the soil and climate have imparted to it a good quality, and the method of curing practiced here probably is not surpassed by any in use. The commercial outlook is now quite favorable. In proof of this we give the following from one of our exchanges:

The first sale in Louisville, Kentucky, of California smoking tobacco, cured by the Culp process, as reported by the *New York Tobacco Leaf*, shows that California brought 80 per cent more than any other tobacco sold during that week, and 100 per cent. to 150 more than average new leaf from other States. Indeed, good California lugs brought more than new leaf from Indiana. The sales of the week reported were 76 hogsheads. The highest price for good old Kentucky leaf was \$17.50 per 100 pounds; for new leaf, \$14.75; while lugs ran from \$10 to \$7.90. Indiana leaf brought \$10.75 and lugs from \$9.40 to \$8.90. The highest prices obtained for Tennessee leaf was \$15.65. The California tobacco grown by Mr. Meek, on the Culp process, brought \$30.30 for leaf, and for lugs \$12, the latter price being above the prices generally obtained for new leaf from other States.

Rubber Paint.

The Pacific Rubber Paint Company, which was organized in this city a few months ago is now in running order, and the factory at 203 Sacramento street is turning out large quantities of this peculiar paint. This article is the result of investigations to produce a perfectly water-proof paint, which was accomplished by forming a chemical combination of rubber with oil paints which when applied becomes elastic enough not to crack, and has a gloss which looks like varnished work. This paint was used as long ago as 1856 in the United States. In 1870 Mr. Eaton, of San Jose, sent to Cleveland, Ohio, for some of this paint for his residence, which was the first used on the Pacific coast. His experiment gave such satisfaction that others sent for it until over 10,000 gallons of the paint was ordered for San Jose. This demand led to the purchase of the patents for the coast by the Pacific Company, who are now manufacturing pure white and all colors in large quantities.

The particular points of superiority claimed by the company are as follows: economy, as any described surface can be covered 20 per cent. less than any other paint; durability, as change of climate or weather does not affect it, while its greater body forms a coat so adhesive and elastic as to prevent cracking, chalking or peeling. It retains its color and gloss, and flows from the brush freely. It may be used for all kinds of painting, and especially for fine inside work, and will work well on iron, stone, wood, brick or plaster. It is claimed that no paint made will resist water equal to it, making it excellent for vessels, boats or roofs, and its peculiar character makes it retain its color throughout.

No special directions are necessary to enable any one to apply the paint; except that the first coat should be thoroughly dry before others are added. One gallon of it covers 35 square yards with one coat; 25 square yards, two coats; or 18 square yards, three coats. The same dryers are used as in other paints if found necessary. The paint is furnished mixed ready for use in all colors, comprising any number of different shades. It can be put on by any one. It is put up for shipment in cans of 1/4, 1, 2, 5, 10, 20 or 40 gallons; also in 5 gallon wooden pails and barrels. The paint can be bought as cheap of agents as at the factory. Messrs. Hasly & De Forest, the principal proprietors, are introducing the product largely in this city and the interior, and already a number of buildings in San Francisco are being painted with it.

Home-made Agricultural Implements.

One of the most difficult social problems of the time is: What shall be done with our boys? So popular has this topic become, that a good deal of "bosh" is being expended upon it. Another topic, but of a more tangible character, is the home manufacture of agricultural implements. Mr. Ralston, the wealthy banker of this city, has inaugurated and is backing up a movement which promises to solve both of these problems to the great advantage of the country. After considering the disadvantages and losses growing out of our present system of importing nine-tenths, probably, of our agricultural implements; and realizing the urgent necessity of teaching the boys of San Francisco useful trades, he resolved to establish, on a large scale, a manufactory of agricultural implements, and to fit it, as far as practicable, with boys, who are to be there taught this useful trade; or rather a business that combines several trades. He has secured the services of an experienced practical mechanic as overseer, who also has at heart the future welfare of the boys of this city. The building is in course of erection, and machinery has been ordered. Mr. Ralston is to furnish the money that makes the mare and everything else go; and we thus have a good prospect opened to the boys of the city of San Francisco, and the country at large.

Economic Botany.

Third Lecture Delivered before the University of California College of Agriculture on Wednesday, Jan. 20, by Prof. C. E. BESSEY, M. S., of the Iowa College, Ames, Iowa.

[Reported expressly for the Press.]

The Grasses.

Gramineae. This is a large order of 4,000 species distributed universally over all regions and climates; in temperate or cooler climates forming a close mat or turf. In the tropics growing in bunches or tufts.

The size of plants of this species varies from one or two inches in height to 100 or more feet—for example, the bamboo. (It would be well to experiment upon the culture of this last in California.) Their stems contain sugar and their seeds starch; and these contribute more to the support of man than any other of the orders. They yield abundance of food for both man and beast. But few of them have poisonous properties or principles. Very few of these have poisonous seeds.

There is a marked distinction between grasses and the allied forms,

Sedges and Rushes.

One difference is that sedges have no nourishment in them and are hollow inside. Another distinction is that grasses have two-ranked stems, while sedges have three-ranked. Another distinction is the stem of sedges is usually triangular; that of the grasses is usually round or flat. A grass is then a round, hollow-jointed stem with narrow leaves which are borne upon an open sheath. The flowers are quite small in structure and on account of the small size of the parts their analysis is usually more or less puzzling to the student. The unit of the inflorescence is a spikelet. A spikelet consists of two glumes at the base, with from one to half a dozen flowers above. See Fig. 1.

This family is divided into three groups; viz: 1. Cereals. 2. Forage plants. 3. The canes. The cereals are those grasses which are cultivated for their seeds. They are all annuals. Rice, *Oryza sativa* is a native of Asia. The annual importation of this commodity into California is thirty millions of pounds, 90 per cent. of which comes from China. It furnishes food for more people than any other of the cereals. South Carolina rice is considered the best. The plant itself grows to the height of from two to three feet. It requires a good deal of moisture and unless rains are frequent, or means of irrigation are at hand, it will prove unproductive. The common variety requires for its successful cultivation a wet marsh, and matures in from four to six months. It is sown in drills and a few inches of water is alternately let on and drawn off; this being continued for some days to supply the requisite moisture. At the top it has a panicle inflorescence somewhat like that of the oat plant.

Wheat, *Triticum vulgare*, stands next in importance to rice. It has been cultivated for many thousand years; so that its nativity is doubtful. We do not know what it was when it was a wild plant. (It is probably the cultivated form of a rather weedy grass, found in the Mediterranean basin, *Aegilops ovata*. Its stem contains a large amount of silica, to which is due its strength, and on account of which it requires for its fullest development a very silicious soil. On account of its easy variability it can be grown in almost any climate; in Europe as far north as 60 degrees. It now has very many forms. The spring and winter wheats come from the same original and one can readily be changed into the other, especially on this coast. Each has a bearded and a beardless species, and each species of both has a white and a red variety. The size is variable.

Spring wheats are grown in the severer climates; the red varieties containing more nitrogenous matter, being harder than the white ones. Winter wheat grows in a mild climate. California wheats lie about midway between the two; that is, spring and winter wheats. According to the statistics of last year, ninety-five per cent. of California's wheat was exported to England, and was valued at fourteen millions of dollars. At a, Fig. 1, may be seen a longitudinal section of a grain of wheat, showing at x a representation of the germ.

Barley, *Hordeum vulgare*, is undoubtedly a native of Southwestern Asia, and has been cultivated up to 67 deg. north latitude. This plant has also for thousands of years given food to man and beast. It is less nutritious than wheat, having less gluten; hence it has passed out of use as food for man, and is now only used as the food of animals, and in the manufacture of beer and other malt liquors. Its range is wider than that of any other cereal, and it adapts itself easily to climate and soil; but thrives best on moist soils. California exports are increasing; and from present indications this grain will for the next few years be

A Valuable One for the Farmer to Raise.

Rye, *Secale cereale*, is a native of the Mediterranean basin, and is now grown in almost every place where the wheat plant is grown. It is harder than the wheat. It is grown as food

for man, and in some places for domestic animals also; but is most largely used in the manufacture of spirituous liquors; for which use it is peculiarly fitted by its chemical composition. The California crop of this grain is light and unimportant.

Oats, *Avena sativa*, is of uncertain nativity, but thought to be of some part of the Eastern continent. It is of a wide range, about equal to that of barley, and is used mostly as food for the domestic animals. In cool climates it is used by man.

Indian corn, or Maize, *Zea Mays*, is a native of America. It is now cultivated in all warm regions. There are many varieties, which allow of profitable cultivation throughout a wide range of latitude. Its uses are many, for man and beast; being used as food, and also in the manufacture of spirituous liquors. It has 88 1/2 per cent. of fat-forming principles; 1 1/4 per cent. of flesh-forming principles; 9 per cent. of water, and 1 1/2 per cent. of salts. It is of most importance in the Mississippi valley. At b, Fig. 11, is shown a longitudinal section of a grain of corn, with (x) a representation of its germ.

The Forage plants, or, what are popularly called grasses. For successful growth, different climates and soils require different species. Very many differ as to their value, according to the uses to which they are to be applied. Mr. Flint says: "Some grasses contain more nutritive matter when green; others when the seed is ripe and dry. Some flourish in elevated lands; others in low lands. Some prefer clay and some light soils. Some are solitary. No one grass combines all the qualities which we want; hence, we never grow one alone." In general, that grass makes the best forage which has

The Greatest Amount of Leaf

To a certain amount of stem; though the stem must always be strong enough to prevent breaking down or lodging. The principal grasses in the United States are the following: Meadow foxtail, *Alopecurus pratensis*, grows from two to three feet high, resembles Timothy and is valuable for hay. It has an erect, smooth, cylindrical spike; grows on calcareous loam; comes early and endures cropping well. It grows well in England and would probably do well here. This grass forms a close sod after a few years. It is best for hay at the time of flowering. Timothy (often called herd's grass), *Phleum pratense*, is a native of the Eastern United States, resembles Meadow foxtail, but is rougher and taller. It grows on moist, loamy soils, or even on peaty soils, but does not vegetate well on sandy or gravelly soils. It is late in growth, forms an indifferent sod and does not bear close cropping. Cattle turned upon it tread it down too much. It is most nutritious some time after flowering. Common experience agrees with chemical analysis in placing this

Among the First in the List

Of valuable forage grasses. Red top, or fine top, etc., *Agrostis vulgaris*, is a native of Europe, and possibly of the United States. It is a branching, panicle grass, with slender stems. It grows well in moist soils, producing valuable hay; makes a good sod and endures cropping pretty well. This grass is probably not as nutritive as some other kinds, for cattle leave it untouched when they have a choice between it and some of the other cultivated grasses.

Orchard grass, *Dactylis glomerata*, is a native of Europe. It is a tall, panicle grass, with the flowers produced in dense clusters; grows well on all soils; is rather coarse, but furnishes an abundance of quite good fodder. As it is early in blossoming, it can be advantageously mixed with the early blooming clovers. It should be cut while in blossom. In cropping it should be fed close, or the stems become too tough and wiry. This grass does not form a good sod, but is inclined to grow in tussocks. It endures drouth well and it grows well in the shade and hence derives its name, being so well

Adapted to Culture Where Trees are Grown.

Kentucky blue grass, or June grass of the East, *Poa pratensis*, is a smaller grass, with spreading panicle, stem thin and fine, leaves long and narrow. It grows well on moist loam; while on sandy soils, it is small and wiry. It requires a moist climate for its full development, and then it is one of the most valuable pasture grasses. In Kentucky, it is used almost to the exclusion of other grasses; but in the drier climates and more sandy soils of the States farther to the north, it is of but little value. Where this grass thrives, it forms a close, tough sod and is

Well Adapted to Lawns.

Chemical analysis made by Professor Law of the Royal Agr. Society of England, show the nutritive value of the grasses just noticed to be as follows:

FORAGE PLANTS.	Water.	Flesh forming principles.	Fatty Matter.	Starch, gum, etc.	Woody fiber.	Mineral substances.
*Meadow Foxtail, or (Alopecurus pratensis.)	80.20	2.44	.52	8.59	6.70	1.55
+Timothy, or (Phleum pratensis.)	57.21	4.86	1.50	22.85	11.32	2.26
*Red Top, or (Agrostis vulgaris.)	70.00	11.36	3.55	53.35	26.46	5.28
*Orchard grass, or (Dactylis glomerata.)	67.14	3.41	.86	14.15	12.49	1.95
+Kentucky Blue grass, or (Poa pratensis.)	67.14	10.35	2.63	43.06	38.02	5.94

*Green. +Dry

This table will show the method of investi-

gation; and yet there are so many other things to be taken into consideration, that it would be folly to decide upon the merits of a grass simply from an examination of its chemical composition. Its earliness and adaptability to soil and to climate must be taken into consideration. Still, such analysis will serve as guides to the practical experimenter. There is great need for further experiments, both chemical and "field"—to determine the value of our native grasses, such as the *Muhlenbergias*, *Diarrhena*, *Koeleria*, *Ealonia*, Bunch grass of the plains, and many others growing both in the wooded and the open country.

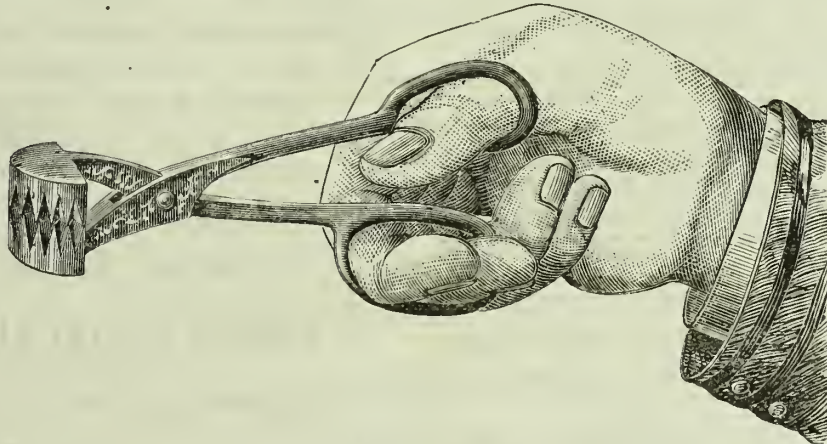
The Canes

Include three, which are of special importance. Sugar cane, *Saccharum officinarum*, is a native of tropical Asia. It is a tall-growing, perennial grass, propagated by cuttings from top joints, and produces the sugar of commerce. Chinese sugar cane, *Sorghum nigrum*, a native of China, is a smaller and less valuable plant. It is now extensively cultivated in parts of the United States. Broom corn, which has panicles of such branching form as to furnish good material for brooms, is of the variety known as *Sorghum vulgare*.

Among the

Weeds

Which belong to the family of grasses, may be included Chess, or Cheat, *Bromus secalinus*, so



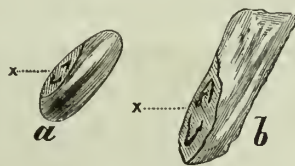
WELCH'S PINKING IRON.

well known by farmers as growing among wheat; Couch grass, or Quack grass, *Triticum repens*, which has an underground spreading growth, making it hard to get rid of; Bristly foxtail, *Setaria viridis* and *Setaria glauca*, which will become weedy, especially if allowed to grow wild; Barn-yard grass, *Panicum crus galli*, and others.

Ornamental Species

Include Pampas grass of South America, *Gynerium argenteum*, which is adapted to a mild climate; Ribbon grass, *Phalaris arundinacea*; the Bamboo, *Bambusa arundinacea*, a native of

Fig. 1.



a, longitudinal section of a wheat grain; b, similar section of a grain of corn. At x x in both the little germs are shown.

India, is a remarkable grass, growing to the height of fifty or seventy feet in two or three months. This species grows to the height of 100 feet; attaining a diameter of from three to six inches.

Several kinds of grasses are beneficial to man in the manufacture of cordage and paper. Others are valuable for litter; for green manuring—that is, to plow under and enrich the soil—for holding the sands on beaches, and for many other uses.

The best book treating upon this subject is "Flint's Grasses and Forage plants," which I commend to your favorable notice.

Improved Pinking Iron.

This is an ingenious and handy substitute for the old-fashioned sinking iron, or one under which the cloth is usually laid and the cutting done by pounding on the end of the tool with a hammer.

The present invention is nothing more than two cutting blades, of any desired form, attached to levers which are jointed like pincers and are operated like scissors. The upper blade does the cutting, and the lower one is made to correspond to it in shape, having its edge made, however, by beveling one side only. Both are so constructed that, when the jaws are closed, the edge of the upper blade sinks slightly below the surface of the lower tool and just back of the same, so that at each stroke the beveled parts of the blades bear against each other, and the cutting edge strikes against nothing but the fabric.

Of course the dies or blades are varied in form for different patterns, but it is considered cheaper to have an entirely separate instrument

for every pattern instead of providing detachable blades.

For further particulars regarding sale of State rights, etc., address the inventor, Mrs. Eliza P. Welch, Groton, Caledonia county, Vt.

Some one might make a profitable investment, by purchasing the right to the Pacific Coast, of the above iron which evidently will be a very useful article.

HORTICULTURE.

Pruning, its Principles and Practice.

EDITORS PRESS:—This is one of the most important operations connected with the management of trees. It may therefore be reasonably presumed that no one is capable of managing trees successfully without knowing well how to prune, what to prune, and when to prune.

This knowledge can only be acquired by a careful study of the structure of trees; because the pruning applied to a tree must be adapted to its particular habits of growth and mode of bearing its fruits.

In view of this fact; I should say something

If a tree is severely pruned immediately after it has put forth its leaves, it receives such a check as to be unable to produce a vigorous growth the same season; the sap is impeded in its circulation, and the result is that a large number of the young shoots that would have made vigorous wood branches had they not been checked, assume the character of fruit-spurs and branches.

Pruning to Diminish Fruitfulness

Is conducted on the same principle as that to renew growth, for this, in fact, is the object. The removal of large branches, where they are to be entirely separated from the tree, is often very clumsily performed. They are either cut so that a portion of the base of the branch remains and sends out vigorous shoots, defeating the objects of the pruning; or they are cut so close that a portion of the wood of the main branch on the stem is taken with them, and a wound made which requires years to heal up. Both these extremes should be carefully avoided.

The Season for Pruning.

In California, I would say that all fruit trees should be pruned in the dormant season—especially the apple and pear; the peach and prune just as the buds begin to swell. The fruit and leaf buds are then easily distinguished from one another, and the object of pruning is accomplished with more precision.

Grapes, gooseberries and currants, may also be pruned at any time in winter. The cherry-tree should always be lightly pruned, because severe amputations almost invariably produce the gum.

Where it is absolutely necessary in the spring, the wound should be coated with grafting composition.

The Theory

Of the pruning of fruit trees rests on the following general principles:

1—The vigor of a tree subjected to pruning depends, in a great measure, on the equal distribution of sap in all its branches. 2—Prune the branches of the most vigorous parts very short, and those of the weak parts long. 3—Leave a large quantity of fruit on the strong part, and remove the whole or greater part from the feeble. 4—Bend the strong parts and keep the weak erect. 5—Remove from the vigorous the superfluous shoots as early in the season as possible, and from the feeble parts as late as possible. 6—Pinch early the soft extremities of the shoots on the vigorous parts, and as late as possible on the feeble parts; excepting, always, any shoots which may be too vigorous for their position. 7—The sap acts with greater force and produces more vigorous growth on a branch or shoot pruned short, than on one pruned long. 8—The sap, tending always to the extremities of the shoots, causes the terminal to push with greater vigor than the laterals. 9—The more the sap is obstructed in its circulation, the more likely it will be to produce fruit buds. 10—The leaves serve to prepare the sap absorbed by the roots for the nourishment of the tree, and aid the formation of buds on the shoots. All trees therefore that are deprived of their leaves are liable to perish.

If these principles and practices of pruning be carefully studied in connection with the habits of growth and bearing of the different fruit trees, pruning will be comparatively an easy matter.

The mode of obtaining any particular form or character cannot fail to be perfectly plain and simple; yet no one need hope to accomplish in all things the precise results aimed at, for even the most skillful operator is sometimes disappointed. But those who give constant attention to their trees will always discover a failure in time to apply a remedy. I insist upon it because I have been taught it by most abundant experience—that the most unremitting watchfulness is necessary in conducting trees in particular forms. It is not by any means labor that is required, but attention that the most delicate hand can perform. Fifteen or twenty minutes at a time, say three times a week during active growth, will be sufficient to examine every shoot on a moderate collection of orchard trees; for the eye very soon becomes trained so well to the work that a glance at a tree will detect the parts that are either too strong or too weak, or that in any way require attention.

This is one of the most interesting features in the management of orchard trees. We are never allowed to forget them. From day to day they require some attention and offer some new point of interest that attracts us to them and augments our solicitude for their prosperity, until it actually grows into enthusiasm.

W. H. NASH.

Glen Flora Mineral Springs.

These springs are situated in Waukegan, the county seat of Lake county Ill. It is called Lake County, because of its possessing 56 beautiful lakes within its boundaries. Mr. C. C. Parks, proprietor of these springs, produces testimonials from the best sources certifying to the remarkable curative properties of the water; and from present indications, they will soon become a popular resort for those who are in search of improvement in health and a pleasant place to while away a pleasant season. The city of Waukegan is extremely attractive, in many respects. The proprietor of the springs is well known as the owner of the Glen Flora herd of Short-Horns, which he is now selling off for the purpose of devoting his means and attention exclusively to the development of the Glen Flora mineral springs.

POULTRY YARD.

The Poultry Show at Pittsburgh.

[From our Special Correspondent, W. C. QUMBY.]

Wandering through the streets of that dirty, dirty city, Pittsburgh; rubbing shoulders with the striking puddlers who have been driven by hunger and cold to submit to the dictates of capital, we saw, near the old City Hall, a coop of Mammoth Bronze turkeys, upon which was a notice stating that the Western Pennsylvania Poultry Society were holding their fourth annual exhibition up stairs; so "up we go," and in a moment had introduced ourselves to the President of the Society, Hon. Edward Gregg, the oldest hardware dealer in the city, a philanthropist and chicken fancier besides, who kindly showed us through the hall and made us acquainted with the different officers of the Society.

For one to fully realize the amount of time, talent and care expended in raising and perfecting the different breeds of domestic fowls and what is known as "Pet Stock"—i. e., dogs, pigeons and chickens, *et id omnes genus*, it is absolutely necessary to visit a "chicken show," so called; but to the nervous, the timid, the lover of silence, we would say stay away; do not endanger your lives, for if sounds will kill, thou shalt surely die; you will hear every variety of crow from the deep voice twelve pound rooster, who stands on tip-toe and delivers himself of a sound that makes your blood freeze, up to the piercing, attenuated shriek of the tiny Bantam that pierces your head like a neuralgic fluid. Then, there is the metallic, clanging cry of wild geese, the rasping crescendo and diminuendo of the turkey's "gobble," and the constant "cluck" of the motherly hen. Then come the dogs with their cheerful barks, determined barks, playful barks, ill-tempered barks, mournful howls, melancholy whines, and all the other sounds that "Dogs delight to bark" in. This tends the air, and awake echoes that spring from the walls and cross and re-cross the room in a tangled maze of torturing acoustics.

Usually the most unsightly feature in an exhibition of this kind is the homeliness of the coops, but this Society procured from the Cleeton Coop company, of New Haven, Conn., their patent portable coops, constructed of snowy canvas, and clean, white wood. Societies and exhibitions should correspond with this company and procure their coops in season, as the demand already is taxing the works of the company to their full capacity. They are unquestionably the cheapest and best exhibition coops ever invented.

Mr. Fred. Mather, of the United States Fish Commission, made a splendid exhibit of live fish; among which were two large glass tanks filled with California salmon, from two months to one year old. The display of brook trout and American Graylings—*Thymallus Tri-color*, was very fine. Mr. Mather desiring to add still more to the pleasures of the exhibition procured from the proprietors of the *Forest and Stream* that wonderful specimen known as the "Noank Mermaid"—*Gullops Piscicornis*, and exhibited the same under glass. Persons interested in this class of fishes (?) should correspond with the editors of *Forest and Stream*, New York city, who will give them full information and furnish eggs (if desired) to subscribers.

There were eighty exhibitors at this exhibition among which were the following noted breeders: E. Gregg, President of the society, fine Dark Brahmas—very fine; C. B. Elben, Vice President, York Presidents' prize for best Light Brahma hen; first and second premium on Aylesbury ducks; first on Call ducks; first on Crevecoeur chickens; first on Silver-Spangled Polish; second on Black African Bantams and special on Red Game Bantams. Mr. Elben purchased at this exhibition, at an almost fabulous price, the first prize Black African Bantam chicks, and prides himself on there being none better on the continent. A. A. Miller, Corresponding Secretary, took first premium on Dark Brahmas, Buff Cochins, Golden Polish, Bronze turkeys, and specials on Aylesbury ducks and Bronze turkeys. R. F. Shannon, Corresponding Secretary, took silver cup for best collection; six first and two second premiums on eight coops pigeons, and nine special premiums. R. H. Peck took the first premium on Light Brahmas, Partridge Cochins, Black Cochins, Silver-gray Dorkin (fowls), Silver-gray Dorkins (chicks), Wild turkeys, Toulouse geese, and Roman ducks. His Black-red Game Bantams were disqualified, they being in very high flesh, and weighing an ounce or more too much. He received two specials, however, on Black-red Game Bantam chicks.

T. A. Winfield, took first premium on Golden Polish, Plymouth Rocks, Dominiques, Black-breasted Red Game Bantams, Brown-breasted Red Game Bantams, Brown-breasted Red Game Gestell White pigeons; Solid White Panthers, White Jacobins, and Red Tumblers, (long-faced).

S. H. Cook, took first premium and \$60 prize on trio Light Brahmas; first and special on Bronze turkeys, and the same on Buff and Black.

E. M. Hively & Co. took first premium on Brown Leghorns, White Polish, White Game

Bantams, White China geese, Cayuga and Muscovy ducks, also five first and eight second premiums on pigeons.

J. S. Halverstadt and J. S. Beaner also received very flattering testimonials considering their limited number of entries. The severe cold weather deterring them from exposing their pets. Many of the chicks had their combs and wattles frozen, while being transported to the exhibition.

The society is in a flourishing condition, and its members are filled with the go-ahead spirit of the age. If parties interested in fancy stocks will correspond with those whose names are above recorded we have no doubt they will be more than satisfied with results.

We close these remarks—written on a hen coop—by returning thanks to the officers of the society for many kind favors shown.

*See advertisement.

BREEDERS' DIRECTORY.

PURCHASERS OF STOCK WILL FIND IN THIS DIRECTORY THE NAMES OF SOME OF THE MOST RELIABLE BREEDERS. OUR RATES.—Six lines or less inserted in this directory at 50 cts a line per month, payable quarterly.

CATTLE.

R. ASHBURNER, Baden Station, San Mateo Co., Cal., breeder of Short-horn cattle. Pure Bred Bulls for sale, from cows of choice milking strains.

J. BREWSTER, Galt Station, Sacramento Co., Cal., breeder of Short-Horn Cattle.

J. D. CARR, Gabilan, Monterey Co., Cal., breeder of Trotting Horses, Short-Horn Cattle, Thoroughbred Spanish Marino Sheep and Swine.

A. MAILLARD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.

W. L. OVERHISER, Stockton, San Joaquin Co., Cal., breeder of Short-Horn Cattle and Berkshire Swine.

STANTON & POWERS, Sacramento, Cal. Choice Jersey Heifers at reasonable rates, Address L. C. Powers, Sacramento, Cal.

MOSES WICK, Oroville, Butte Co., Cal., breeder of Short-Horn Cattle. Young bulls for sale.

SHEEP AND GOATS.

MRS. ROBERT BLACOW, Centerville, near Niles Station, Alameda Co., Cal. Pure-Blooded French Merino Sheep for sale.

THOS. BUTTERFIELD & SONS, Hollister, San Benito, Cal. Importers and breeders of Angora Goats and Sheep.

N. GILMORE, El Dorado, El Dorado Co., Cal., importer and breeder of Angora Goats.

LANDRUM & RODGERS, Watsonville, Santa Cruz County. Pure-Bred Angora Goats and Cotswold Sheep for sale.

SEVERANCE & PEET, Niles, Alameda Co., Cal., breeders of Thoroughbred Spanish Merino Sheep.

A. G. STONESIFER, Hill's Ferry, Stanislaus Co., Cal., breeder of Pure-Blooded French Merino Sheep.

L. M. SHIPPEE, Stockton, Cal. Importer and Breeder of Spanish Merino Sheep, Durham Cattle and Essex Swine.

POULTRY.

GEO. B. BAYLEY, Cor. 16th and Castro streets, Oakland, Cal. Imported Brahmas and other choice Fowls for sale.

ALBERT E. BURBANK, 43 and 44 California Market, San Francisco, importer and breeder of Fancy Fowls, Pigeons, Rabbits, etc.

M. EYRE, Napa. Bronze Turkeys, Emden Geese, Choice Fowls, Pigeons, Rabbits, Ferrets.

Mrs. L. E. McMAHAN, Dixon, Solano Co., Cal. Bronze Turkeys now ready for sale from the best imported stock; also eight varieties of choice Chickens; Eggs in season can be purchased very reasonably.

Mrs. L. J. WATKINS, Santa Clara. Premium Fowls. White Leghorn, S. S. Hamburg, Game Bantams, and Aylesbury Ducks. Also, Eggs. 21v8-3t

C. W. WILSON, San Francisco. The largest and heaviest Bronze Turkeys the world ever saw. One pair, 19 months old, over 72 pounds now. I offer for sale extra large Turkeys, old or young; also Eggs. Correspondence solicited. Address C. W. Wilson, P. O. Box, 1874, San Francisco.

J. M. NEVILLE.

G. H. BRYANT

NEVILLE & CO'S FACTORY

113 Clay and 114 Commercial Sts.,
SAN FRANCISCO.

BAGS of All Kinds,

TENTS, All Sizes and Descriptions.

HOSE for Hydranic Use.

CANVAS, All Numbers.

TWINE for Sewing, Etc.

CO-OPERATIVE MARBLE WORKS.

JOHN DANIEL & Co.,

Manufacturers of and Dealers in

Monuments, Headstones, Tombs,

MANTEL PIECES, ETC.,

421 Pine street, between Montgomery and Kearny, SAN FRANCISCO.
21v2-1v

GUADALUPE ISLAND COMPANY.

Notice is hereby given that the annual meeting of the stockholders of the GUADALUPE ISLAND COMPANY will be held at its office, 305 Pine Street, San Francisco, on Saturday, January 30th, 1875, at 3 P. M.

WM. M. LANDRUM, President.

ARTHUR RODGERS, Secretary.

Poultry Breeders.

BRONZE TURKEYS.

THE HEAVIEST IN THE WORLD!

MY SPECIALTY.

I was the first man on this Coast to import and breed mammoth Bronze Turkeys. I have as progeny of my imported birds, the largest single Tom, Hen and pair or trio of Turkeys, for their age, that the world ever saw. One pair, 19 months old, now weigh over 72 pounds; Toms 40 pounds and over, Hens 20 to 30 pounds. This is not what the birds weighed six months since or what they will weigh when fattened, but what they weigh now as they run with the flock. During the coming season I propose to sell eggs for hatching from this stock; the eggs will be packed in my improved shipping box, which carries safely. Orders now received for early Spring delivery. I can spare a few extra large Toms; also, a few pair of great size. Weight guaranteed or no sale. I offer fowls and eggs from my very fine and choice collection of Brahmas, Cochins, Leghorns, Houdans, Ducks, etc. My yards contain the best strains of the above varieties. For further information apply to

C. W. WILSON,

P. O. 1874.

San Francisco.

S. H. COOK,

BREEDER OF

CHOICE LIGHT AND DARK BRAHMAS,

B. B. R. Game Bantams,

Mammoth Bronze Turkeys,

TOULOUSE, BREMEN AND AFRICAN GEESE,

ROUEN AND MUSCOVY DUCKS.

Some choice Light and Dark Brahmas for sale Also, Bronze Turkeys. Address

S. H. COOK,

McDonald's, Washington Co., Pa.

Send for Price-List.

OAKDALE POULTRY YARDS.

SATISFACTION GUARANTEED.

Light Brahmas, Dark Brahmas, Buff Cochins, Bronze Turkeys, Aylesbury and Rouen Ducks.

A. A. MILLER,

Oakdale Station, Allegheny Co., Pa.

Correspondence Solicited.

J. S. BEANER,

BREEDER OF

WHITE LEGHORNS.

My fowls are from stock that took the Special Premiums at the Boston Poultry Show in 1873 and 1874 Also at Pittsburgh this year. Eggs \$3 per setting. My P. O. address is Rochester, Beaver County, Pa. Correspondence Solicited.

EDGORTH POULTRY YARDS.

R. F. SHANNON,

Breeder of

Light and Dark Brahmas, Silver Duckwing and Black Breasted Red Game Bantams.

P. O. Box 508.

PITTSBURGH, PA.

Light Brahma Eggs, \$1. gold; Dark Brahma Eggs, \$2. Bantams' Eggs, \$4. Orders received for Pigeons to be delivered in the Fall. At Pittsburgh Show, January, 1875, on 4 coops fowls and 8 coops pigeons, won 6 firsts, 2 second 1 third and 9 specials.

C. B. ELBEN.

I make a specialty of

Fine Light Brahmas.

AYLESBURY AND CALL DUCKS

BLACK AFRICAN BANTAMS, &c.

Send for my new Catalogue and Price List.

C. B. ELBEN, Pittsburgh, Pa.

R. H. PECK,

BREEDER AND SHIPPER OF

Fancy Poultry and Eggs,

From Pure and Imported Stocks.

Having been very successful as an exhibitor, I solicit patronage. Address, with stamps, R. H. PECK, Earlville, Portage County, Ohio.

WHITE LEGHORNS.

I make these fowls a specialty, and have spared no pains or trouble in procuring stock from the finest strains in the United States, and now offer eggs for hatching at Eastern prices from the finest fowls on the Pacific coast. They are small eaters, non-setters and very hardy, and for eggs are without a rival, being almost constant layers, and are truly styled the "farmer's fowl." Eggs, \$3 per dozen, (13) or six dozen for \$15. Securely packed to carry any distance, and delivered to the express on receipt of price. Cash to accompany order and orders taken in rotation.

Sebastopol, Sonoma county, Cal.

E. M. Hively's Poultry Yards,

YOUNGSTOWN, OHIO.

20 Varieties Land and Water Fowls,

—ALSO—

PIGEONS AND EGGS IN SEASON.

Correspondence Solicited.

T. A. WINFIELD,

Hubbard, Ohio.

Breeder of CHOICE POULTRY, BRAHMAS, COCHINS, BLACK AND RED GAMES, GAME BANTAMS, HAMBURGERS AND POLISH.

Also, Choice collection of Fancy Pigeons. Send for Price-List. Eggs for sale in season, from \$3 to \$6 currency.

J. S. HALVERSTADT & CO.,
Breeders and Shippers of
HIGH CLASS POULTRY
Embracing all
THE LEADING VARIETIES,
LEETONIA, OHIO.

Chicken Eggs, \$3; Turkey Eggs, \$5; Wild Geese Eggs, \$5. Letters of inquiry promptly answered. Descriptive Circulars and Price Lists sent on application.

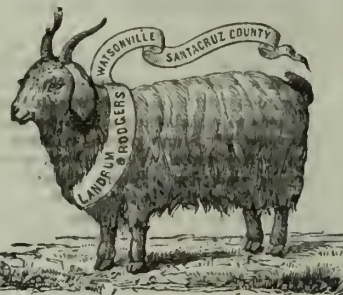


LOOK!

ALBERT E. BURBANK, Importer and Breeder of Fancy Fowls, Pigeons, Rabbits, etc. Also Eggs for hatching from the finest of imported stock, and Fowls at reduced prices. Send for Price List.

ALBERT E. BURBANK,
1v8-3m 43 & 44 Cal. Market S.F.

Live Stock Notices.



We respectfully invite the attention of wool growers to our fine stock of Cotswold Sheep and Angora Goats. We have 200 head of Pure Breed Angoras to select from; we have some of the finest Goats in America; we guarantee everything we sell to be as represented; our prices are as low as any in America for the same grade of stock. Call and see, or address,

LANDRUM & RODGERS,

13v7-cow-1f

Watsonville, Cal.

REEDVILLE HERD.

PROPRIETOR,

S. G. REED. - - Portland, Oregon.

I have for sale, Shorthorns of the most approved and fashionable families; among them are a few one year old Bulls of great merit, the produce of Cows imported direct from England, and sired by the renowned Mantelini bull, GOVERNOR GENERAL, 10,156, A. H. B., Vol. X, p 175. Also on hand,

AYRSHIRE CATTLE,

COTSWOLD AND

LEICESTER SHEEP,

AND BERKSHIRE PIGS.

of the highest standard. For particulars apply to

S. G. REED, Portland, Oregon,

Or WM. WATSON, Hillsboro, Oregon.

1v9-9w-1f.

12 Short-Horn Bulls,



fat and sleek, thoroughbred, just from Kentucky, at SAXE'S Stables, 35 Ritch Street, between Folsom and Harrison, two blocks from Grand Hotel. Inquire at SAXE'S Stables, or Room 32 Russ House. 3v9-3m

JACKS FOR SALE.

Two fine Jacks, one four and the other five years old, large and likely sired by old Samson, and of the best Kentucky Jinnets; the best stock of the kind in the State. Address B. C. EPPERSEN, 2v9-2m Bear Valley, Colusa County, Cal.

ARMES & DALLAM,

WHOLESALE DEALERS IN

WOOD AND WILLOW WARE

Baskets, Brushes and Twines,

Clothes Wringers,

Doty's Washing Machines,

AND

GENERAL HOUSE FURNISHING GOODS

And Manufacturers of

BROOMS, PAILS, TUBS, WASHBOARDS,

DASH,

CYLINDER,

THERMOMETER,

AND SQUARE BOX

CHURNS,

215 and 217 Sacramento St., San Francisco.

BETTER THAN MINING STOCK.

A valuable Patent for sale. No objection to taking real estate in part payment. Residence, Washington street on the levee. P.O., Sacramento.

Jan2 bp-M

O. A. DAVIS

Lands and Homes for Sale.

CENTINELA COLONY

LOS ANGELES CO. CAL.

SIX MILES WEST OF LOS ANGELES, CAL.

The unparalleled success of the
LOMPOC COLONY,

SANTA BARBARA COUNTY,

Has induced the "Centinela Land Company of Los Angeles" to subdivide and place in market for sale and settlement, under the direction and management of the "California Immigrant Union," of San Francisco, the "Centinela and Sausal Redondo" Ranches, containing Twenty-five Thousand Acres of Beautiful Valley Land, located seven miles west of the city of Los Angeles, and extending to and fronting on the Pacific Ocean. There is now on the tract an orchard of about three hundred acres, containing Orange, Lemon, Lime, Fig, Walnut, Almond and Olive trees, and a nursery of young Orange and Lime Trees. Some of the Orange and Lime trees are in bearing. The tract will be subdivided in twenty, forty, eighty, one hundred and sixty-acre farms, and sold upon easy terms and long credits.

Auction Sale of Town Lots

—AND—

5, 10, 20 and 40 ACRE FARMS.

WILL COMMENCE ON

Monday, Feb. 15, 1875, at 12 o'clock, M.

And continue Five Days. The sale will take place on the Rancho. Parties desiring to purchase should be on the ground a few days prior to the sale, in order to examine the property. Title—United States patent.

SITUATION.

"Centinela," with the addition of the "Sausal Redondo," contains 25,000 acres. The boundary of the Rancho commences three and a half miles from the city limits of Los Angeles, and extends to the Pacific Ocean.

TOPOGRAPHY.

"Centinela" is made up of one broad, level, fertile valley, of over twenty thousand acres, and beautiful fertile rolling hills near the ocean.

SOIL.

The soil is an exceedingly fertile loam, and is, without exception, the richest and most productive in Southern California. Its vicinity to the ocean insures a crop without irrigation. Excellent wheat has been raised for the last two years upon the hills adjoining the ocean. This wheat field contains 1,000 acres, and covers the lightest soil upon the Rancho. There is no alkali or barren land.

SEMI-TROPICAL FRUIT.

There are a few bearing orange and lime trees upon the Centinela, and the fruit they produce is of the largest and finest quality. There is an orchard containing 6,000 orange trees three years old, and 1,700 almond, lime and lemon trees. The almond, lime and lemon trees will bear fruit in 1875. The orange trees will bear in five years. There are 7,000 three-year-old orange trees in the nursery near the orchard. Fig, pepper and gum trees grow without irrigation. The entire orchard can be taken care of by three men with six horses. The orchard will be kept undivided by the company, to save the expense of each shareholder having a few trees to take care of. The almond, lime and lemon trees will yield an immediate return. In five years each orange tree will produce \$20 per annum, or \$300 per share for those now planted. There are flowers in the garden in bloom every day in the year.

SHEEP.

A flock of about 14,000 sheep will be kept undivided, to save expense to the shareholders. The sheep will produce in increase and wool over \$2 each, yearly, over expenses. They will be grazed upon outlying and unsold lands of the company. The "No Fence" Law is in force in Los Angeles County.

CLIMATE.

The climate of the "Centinela" is without exception the finest and most equable in the world. It varies but little throughout the year. The mean temperature is about 60 degrees. The mercury falls but little below 60 in winter and rises but little above 60 in summer. You sleep under one pair of blankets and with your bed-room window open every night in the year.

AGRICULTURE.

The soil of the "Centinela" is admirably adapted for all kinds of grain, vegetables and fruit.

WATER.

The Centinela creek rises upon the Rancho and runs through the northern portion of the tract. It affords an abundance of clear spring water. The source of the Centinela creek consists of several natural artesian springs, showing that artesian water can be obtained by boring.

THE TOWN.

A square mile is laid off at an eligible point on the tract, with lots 31x135; avenue 100 feet, and streets 80 feet wide. A stream of water can be brought in so as to supply every lot with crystal, cool, sweet water. One of the forty-acre tracts is set apart for a College and Farm School, and there will be a Ten-acre Park on each of the four sides of the town, and Four Blocks in the center of the town for Public Buildings, Schools, etc. A large lot will also be set apart for each Religious Denomination, and a block given for the erection of a large hall by the different Fraternal, Grange and Temperance Societies.

FARE.

Parties desiring to visit the Rancho can take the 8:10 A. M. train of the Southern Pacific Railroad to Soledad, thence by Coast Line Stage to Los Angeles; by 4 P. M. train to Bakersfield, thence by stage to Los Angeles; or by Pacific Mail Co.'s and Goodall, Nelson & Perkins' steamships direct to Los Angeles, where conveyances can be had to go to the Rancho free of charge.

RAILROADS AND WHARF.

The Company intend building a wharf to enable Steamships from San Francisco and other places to land passengers on the tract. A narrow-gauge railroad will be built from Los Angeles to the wharf, a distance of about 12 miles. The Main Street and Agricultural Park Railway will soon be built to the park, about miles from the tract. This railway will be extended to the tract as soon as the settlement will justify it. Lithographed maps can be had at the office in San Francisco. Apply to

W. H. MARTIN,

General Agent California Immigrant Union, 534 California street, between Montgomery and Kearny streets, San Francisco, to TEMPLE & WORKMAN, Bankers, or Gen. SHIELDS, Los Angeles, or O. L. ABBOTT, Corresponding Secretary Santa Grange Immigrant Aid Association, Santa Barbara.

P. S.—A second sale will take place on the Rancho, commencing on Monday, the 8th of March, 1875.

NINE FINE
FARMS FOR SALE.

Near Middletown, Lake county, containing respectively 1600, 1100, 600, 300, 200, 200, 130 and 80 acres. The most of these places contain as fine land as there is in California, and the home market averages twenty per cent. higher than San Francisco. When we take into consideration the quality of the soil, certainty of crops, the market caused by the development of mines and the Mineral Springs, the climate and privileges of schools and religious society, we are satisfied that no such inducements can be offered in any other part of the State, to those desiring to purchase land.

Having examined all these places personally, we can give a minute description of each. Apply to

JOSEPH PETTIT,

or WM. GORDON, No. 215 Kearny Street, Up Stairs. Ring the Bell. 3v9-4f

FOR SALE.

HOMESTEAD AND FRUIT ORCHARD

About thirty-five miles from Stockton, containing three acres of land, a good house of eight rooms, good well, etc. Over two hundred fruit trees all in fine bearing order; such as Peach, Pear, Apricot, Apple, Plum, Figs, Oranges. A fine chance and a good market. Price, \$1,800. Title perfect. Apply to

GEO. W. CHAPIN,

434 Montgomery street, S. F., or this Office.

5,500 ACRES

Of the best portion of the old NOMELOCKE RESERVATION, in Tehama County, for sale very low; only five dollars per acre; one-third down, one-third in one year and one-third in two years, with interest at one per cent. per month. Will be sold all together or in two parcels. This is one of the finest tracts of grazing land in Northern California; is abundantly watered by numerous perpetual springs and has two miles of the Elder Creek, a clear mountain stream. Its grass never fails from drouth, and is of the best quality for sheep and has no clover burr. 800 acres of level plow land; timber for posts, fuel, etc. Enquire of ALLEN WILCOX, Los Angeles, or F. B. WASHINGTON on the tract, twenty miles west of Tehama.

FOR SALE.

In the Riverside, New England and Santa Ana Colonies, in the valley of the Santa Ana river, San Bernardino county, California, twenty thousand (20,000) acres of clean, rich, level, valley land, with an abundance of water for irrigation. There is no better land in the State for the orange and all other semi-tropical fruits, and no finer climate in the world. Inquire of W. T. SAYWARD, 420 Montgomery street, San Francisco; S. C. EVANS, Fort Wayne, Indiana; C. I. HUTCHINSON, 314 California street, San Francisco; L. UPSON, General Agent, Riverside, San Bernardino county, Cal.

KIMBALL CAR, CARRIAGE

—AND—

AGRICULTURAL IMPLEMENT

MANUFACTURING CO.,

Cor. Bryant and Fourth Sts., San Francisco

The CALIFORNIA TUBULAR IRON AND WOOD FRAME HARROW—two, four and six-horse Iron Harrows, \$60, \$70 and \$75. Wood Frame Harrow, \$10 less on each size than the Iron.

The Harrow has an easy seat for the Driver. The middle section rests on three wheels with wings hinged on each side.

By use of Levers the Driver in his seat can raise or lower the Harrow, regulating at will the depth of the teeth in the soil, and in the same manner fold or raise the wings from the ground so as to drive from the road to the field, saving the use of a wagon.

Our CALIFORNIA SCRAPER is also made for the ease of the Driver, enabling one person to ride, manage the team and do the work.

Is adapted for leveling and preparing the surface of the soil for irrigation. And for making roads, removing dirt from ditches, cleaning barn yards, sheep corals, etc.

The IMPROVED EAGLE HAY PRESS—Best in use on this Coast. Cheap, Economical, Powerful, and easily repaired.

Will press bales weighing from 250 to 325 pounds, using less rope than any other press.

Three men with a good team of horses will bale from 10 to 15 tons per day.

Adapted for haling wool, hides, cotton, rags or moss. Price, \$250. Weight of press, 2,500 pounds. Please send for circulars.

Union Box Factory,

GEO. W. SWAN & CO.,

115 and 116 Spear St., bet. Mission & Howard
SAN FRANCISCO.

Apple, Pear, Plum, Peach, Cherry, Grape, Orange, Lime and Wine Cases.

Tomato, Potato, Fig and Raisin Boxes.

Strawberry, Raspberry and Blackberry Chests and Drawers, and Baskets for all kinds of Berries.

Peach and Picking Baskets, Butter Chests and Boxes, Cheese Boxes, Square and Round Egg Carriers.

Drums for Figs, Cherries, Raisins, and for other Dried Fruits.

Free Packages—Boxes not to be returned—a good article, costing less than Sawed Boxes.

Lard Caddies, Coffee and Fruit Caddies.

Turkey and Chicken Coops, Bee-Hives, Etc.

Packing Boxes for Dry-Goods, Cigars, Candies, Canned Fruits, Honey, Macaroni, Crackers, Sugar, Soap, Boots, Etc.

In fact, every style of Boxes manufactured in the Union, and turned out in the Best Style at Favorable Prices. Orders from the country well attended to.

For Bleaching or Washing

In Cold or Warm Water.

FALKINBURGH & CO'S

GRANGER SOAP

HAS NO EQUAL.

Don't fail to give it a trial, and be assured of a saving of money, time and labor. It speaks for itself. Warranted to accomplish more and do greater execution than any other soap. It is pressed, wrapped and perfumed.

ONCE USED, ALWAYS USED.

Sold by the principal Grocers throughout the country. Manufactured by

FALKINBURGH & CO.,

Oregon St., below Front, bet. Washington and Jackson, San Francisco, Cal. 4v9-10p

Averill Chemical Paint,

MANUFACTURED BY THE

Cal. Chemical Paint Co.

PURE WHITE, AND ANY SHADE OR COLOR.

This Paint is prepared in liquid form, READY FOR APPLICATION—requiring no thinner or dryer, and will not spoil by standing any length of time.

It is Cheaper, more durable, more Elastic, and produces a more Beautiful Finish than the best of any other Paint.

It will not Fade, Chalk, Crack, or Peel off, and will last twice as long as any other Paint.

In ordering White, state whether for Outside or Inside use, as we manufacture an Inside White (either Flat or Gloss) for inside use, which will not turn yellow, and produces a finish equal to the finest China Gloss.

Put up in $\frac{1}{4}$, $\frac{1}{2}$, 1, 2 and 5 gallon packages, and in Barrels. Sold by the Gallon.

For further information send for Sample Card and Price List, or apply to the manufactory and office,

Cor. 4th and Townsend streets, S. F.

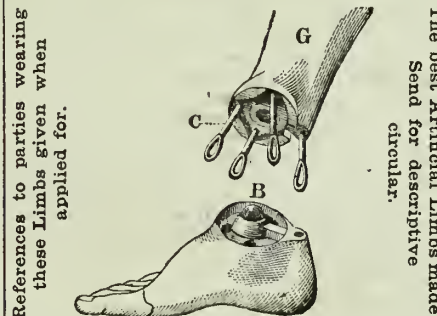
TYLER BEACH, M. C. JEWELL,
President. Secretary.

3v9-cow-bp-ly

THE DR. BLY ARTIFICIAL LIMBS

166 Tehama Street,

COR. OF THIRD, BETWEEN HOWARD & FOLSOM.



THE "ANATOMICAL LEG" WITH A UNIVERSAL ankle motion; the above cut is its illustration. This artificial leg approaches so much nearer an imitation of the functions of nature than any other, that it stands without a rival among all the inventions in artificial legs, old or new. (The very latest announced new inventions duly considered.)

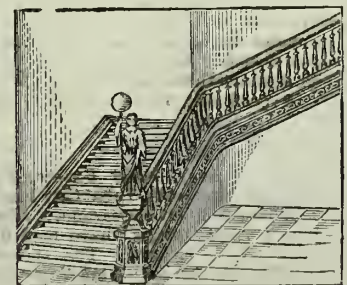
Address

MENZO SPRING,

166 Tehama street, S. F., Cal.

6v30-1am-bp-3m

SANBORN & BYRNES.



Mechanics' Mills, Mission Street,

Bet. First and Fremont, San Francisco. Orders from the country promptly attended to. All kinds of Stair Material furnished to order. Wood and Ivory Turners. Billiard Balls and Ten Pins, Fancy News and Balusters. 25v8-8m-bp

THE ALDEN

Fruit Preserving Company
OF CALIFORNIA.

Is now prepared to sell rights and furnish the necessary machinery for using the "ALDEN PROCESS," acknowledged to be the best method known for preserving Fruits, Vegetables, Meats, etc.

For full particulars call at the company's

Office, 426 Montgomery St., S. F.

G. W. DEITZLER, President.

W. M. WHERRY, Vice-President.

FRANK PYLE, Sec'y and Supt.

BANK OF CALIFORNIA, Treasurer.

11v7-6m

Banking and Insurance.

The Pacific Mutual Life Insurance
Company of California.

No. 41 Second street, - - - Sacramento

ACCUMULATED FUND, NEARLY

\$1,250,000.00.

\$100,000 Approved Securities, deposited with the California State Department as security for Policy holders everywhere.

LELAND STANFORD.....President
J. H. CARROLL.....Vice-President
JOS. CRACKBON.....Secretary

All Policies issued by this Company, and the proceeds thereof, are exempt from execution by the laws of California. THE ONLY STATE IN THE UNION that provides for this exemption.

47 Policies issued by this Company are non-forfeitable, and all profits are divided among the insured. Policies may be made payable in Gold or Currency, as the applicant may elect, to pay his premium.

Executive Committee:

LELAND STANFORD, J. H. CARROLL,
ROBT. HAMILTON, JAS. CAROLAN, SAMUEL LAVENSON,

SCHREIBER & HOWELL,

11-29-cow-bp-3m General Agents, Sacramento.

Anglo-Californian Bank.

LIMITED.

Successors to J. Seligman & Co.

London Office.....No. 3 Angel Court
San Francisco Office.....No. 412 California street.

Authorized Capital Stock, \$6,000,000,

Subscribed, \$3,000,000. Paid in, \$1,500,000.

Remainder subject to call.

DIRECTORS IN LONDON—Hon. Hugh McCulloch, Renben D. Sassoon, William F. Schofield, Isaac Seligman, Julius Sington.

MANAGERS:

F. F. LOW and IGNATZ STEINHART,
SAN FRANCISCO.

The Bank is now prepared to open accounts, receive deposits, make collections, buy and sell Exchange, and issue Letters of Credit available throughout the world, and to loan money on proper securities. 2v27-cowbp

DIVIDEND NOTICE.

The Farmers' and Mechanics' Bank of SAVINGS have declared a Dividend for the half year ending December 31, 1874, at the rate of ten per cent. per annum on term, eight per cent. per annum on class one ordinary, and six per cent per annum on class two ordinary deposits, payable on and after January 15th, 1875. By order G. M. CONDER, Cashier. 3v9-1m-bp

AMMONIA!

For Washing and Cleaning Purposes.

For Sale by all Grocers.

This article is universally used in Europe, and, recently introduced for general family use in San Francisco and neighborhood, is already in great demand. It is now the intention of the manufacturers to introduce it all over the Pacific Coast, at prices which will bring it within the reach of every household.

It is unequalled for cleansing Woolen Fabrics, Cutlery, Carpets or Crockery; for Scrubbing Floors, Washing Paint, Removing Grease Spots, Shampooing or Bathing.

It renders water soft, and imparts a delightful sense of coolness after washing.

DIRECTIONS.—For Laundry, use two to four table-spoonfuls to a wash tub of water. For bathing, use one table-spoonful in the bath tub. For removing grease spots, apply with a brush, undiluted, and wash with water afterward. For stimulating the growth of plants, use a few drops in every pint of water used in watering.

PRICE.—Per Pint Bottle, 25 cents; per quart Quart Bottle, 40 cents; per Half Gallon, 75 cents.

Also, SULPHATE OF AMMONIA for chemical purposes, fertilizing, and the preparation of artificial manures. AMMONIACAL PREPARATION, for the prevention and removal of boiler scale. CRUDE AMMONIA, for general manufacturing, and FUR LIQUOR and AQUA AMMONIA for chemical and pharmaceutical purposes.

Manufactured by the

SAN FRANCISCO GAS-LIGHT CO.

cowbp

EMPIRE PARLOR MATCHES.

We have imported the requisite Machinery and Chemicals to add to our previous assortment of Matches the celebrated Parlor Match, deservedly popular among families and smokers, on account of brilliant burning qualities, and absence of smell or odor. Manufactured from the best sugar pine, a wood superior to any other, and found only upon the Pacific Coast. They are full count, and without objection of any kind. Packed in boxes of most desirable style. Brilliant and Safety Matches of superior quality manufactured, and are guaranteed to give entire satisfaction. Encourage Home Industry, and get superior goods at less cost than the imported article. Ask your grocer for the EMPIRE PARLOR MATCHES, and he sure you get no others. For Sale by all Grocers.

B. BENDEL & CO.,

MANUFACTURERS, 318 FRONT STREET.

FACTORY—Corner Elcventh and Harrison streets, S. F. feb-cow

MOON'S "BEE WORLD,"

Published at Rome, Georgia, is the only publication of its kind in the South, it is devoted exclusively to

BEE CULTURE

and should be in the hands of every Bee-keeper in the United States. \$2.00 per year. Send for Sample Copy. Address,

A. F. MOON & CO., Rome, Ga.

AGRICULTURAL NOTES.

ALAMEDA.

GRAIN.—Livermore *Enterprise*, Feb. 6: Over 1,000 tons of grain left here during the past week, mostly to San Francisco. Upwards of 10,000 tons remain in our warehouses for shipment.

TALL CORN.—A farmer near the Mission San José has corn stalks on his ranch fully nineteen feet high. We thought El Monte was the only place where mace reached such an altitude. Hurrah for Climax' home.

PLANTING TREES.—Oakland *Transcript*, Feb. 6: Fewer trees have been planted in Oakland and vicinity this winter than in any similar period for ten years past. This fact is true, although inexplicable. Now is the time for planting trees, shrubs, vegetables, bulbs, asparagus roots, grass seeds for lawns, etc., etc. Fruit trees, also, at this season of the year should be trimmed. Manuring, too, should be attended to, and in a word all garden and ranch work preliminary to harvest ought to employ every moment of the time of the agriculturist and gardener. There never was a more propitious season for bountiful as well as excellent crops in this vicinity.

COLUSA.

THE SEASON.—A correspondent of the Colusa *Sun*, writes Jan. 24th from Fork Slough: We have had a glorious rain, and the long faces of the soil-tillers have vanished, and we can imagine that the patter of the rain was sweet music to those hardy sons of toil who make their living by the sweat of their brow. This immediate vicinity is blessed or cursed, just as you like, with numerous false prophets and chronic grumblers. Before the rain came these same prophets could talk of nothing but a dry season and the prospect of a total failure of crops. They fretted and grumbled as though the Almighty ought to consult them about the distribution of His blessings to mankind. When the wind blew and the flood came the same ones put up a pitiful face and growled because their houses were not in order. Some had neglected to get a supply of winter's wood; others were running short of grub and tobacco, and they are sure now that this will be the wettest winter on record. Yet, with all the grumbling, we have a first-class neighborhood. We have our pleasures and improvements, as well as our troubles.

CONTRA COSTA.

GROWING WEATHER.—Antioch *Ledger*, Feb. 6: The warm, sunny days and dewy nights are most favorable to vegetable growth. The drying north wind of last week, was succeeded by gentle crust-softening showers, and the broad acres are teeming with a healthy, vigorous growth of wheat. There is every indication of a prosperous year.

PLANT TREES.—If, as heretofore, the citizens neglect to plant trees in front of their residences and business houses, let the town Trustees take the matter in hand and now, while it is the proper season, plant a row on every street in town. They will grow wonderfully and in two years, even, will greatly ornament the town. The cost is a mere trifle, their value will continue to increase annually. Consider for a moment how greatly a row of locusts, poplars or peppers on either side of our streets would add to the beauty and attractiveness of our village.

TULARE.

FINE SHEEP.—Fresno *Expositor*, Feb. 3: Manchester Bros., dealers in fine Spanish merino sheep received at this place, on last Tuesday, 310 rams and 50 ewes from Addison county, Vermont. This is the largest importation of fine sheep ever made to the county, and is comprised of animals from the very best strains in America, and many of them are the direct offspring from the celebrated ram Gen. Fremont, which is reputed to be the best ram ever reared in the United States, and whose average fleece for the first eight years of his life was 29 pounds. One of the finest animals in the band is a two-year old, known as Prince. His present fleece is estimated at 30 pounds, and he is valued at \$500.

KERN.

SINCE THE STORM.—Southern Californian (Bakersfield), Feb. 6: Since the storm of snow and rain the weather has been very mild, with several warm, cloudy nights. The grass throughout the county is growing as if impatient to make up for lost time. The country about us never presented a more prosperous appearance. The roads have been heavy since the rain, and have hindered the moving of lumber, and the farmers' teams engaged in it have been put to work clearing more land. In the settlements south and west of the town the farmers seem very much elated, and feel that they can neglect the ditches with impunity, as the rain has been sufficient for the wants of the year, even for the second crop on most of the ground. A more promising season has never been known in the Kern river valley.

LAKE.

Good.—Lake County *Bee*, February 4: Farming prospects are very good at present throughout Lake county. The young grain is looking well everywhere.

TREE PLANTING.—John Rains has been planting a number of choice fruit trees and grape vines on his place, near Highland Springs, the past two or three weeks. Altogether, he has set out about 200 trees and 700 grape vines. Among them are ten different varieties of apple, six varieties of peach, five of cherry, five of

plum, two of almond, and two of pear. They are generally two-year old trees. The grape vines are principally Black Hamburg, Flaming Tokay and Sinfandel. Most of these trees and vines will bear next year. Next season, Rains proposes to plant 500 more trees and 3,000 grape vines.

MARIPOSA.

AGRICULTURE IN MINING COUNTIES.—The Mariposa *Gazette* very properly and thoughtfully remarks: With us land for agricultural pursuits will ere long be very cheap, compared with rates prevailing in Stanislaus and Merced, or Fresno; but our lands, so sterile in appearance, are not really so. In certain sections of this State, a very few years ago, land much less inviting than ours, could be had for a song, so to speak, which, owing to enterprise and a judicious method of farming, brings very high figures. A slight infusion of a similar spirit in Mariposa would produce greater results. There are localities in our county capable of producing the finest variety of grapes. The rich burgundies came from countries less hospitable to the culture of the grape than are the hills of Mariposa. Let capital be intelligently diverted to this question of Mariposa adaption to vine culture, and we have no doubt our statements will be amply verified.

NAPA.

PROFITS OF FRUIT GROWING.—St Helena *Star*, February 4: A great portion of the land in Napa valley is well adapted to the growing of the finer fruits, such as prunes, plums and raisin grapes. Now that these fruits can be preserved by artificial means cheaply and in a manner far superior to the sun-dried article; it might be well for our farmers and others interested, to look into this matter and see if it is not well to plant a portion of their lands with these profitable fruits. They cannot be successfully raised east of the Rocky Mountains, where there is and always will be, an unlimited demand; and, to show the profit of the culture of such commercial fruits in connection with the Artificial Process of Preservation, we respectfully submit the following estimate, clipped from a pamphlet published by the Alden Fruit Preserving Company, of California: "Take the prune for example. At 14 feet apart, 222 trees may be planted to the acre." The writer has seen trees of the Petite Prune d' Agen (an excellent variety) five years old from the bud, bear 200 pounds to the tree. These prunes can be made into an article far superior to any imported prunes, at a cost not exceeding three cents per pound. This would give 15,200 pounds to the acre, of preserved prunes, which, at 20 cents per pound, would give \$3,040 per acre, or about \$14 per tree. Deduct from this the cost of curing, three cents per pound, or \$456 for the product of one acre, less the cost raising. Those who consider these estimates too high many reduce them one-half, and still it will leave a handsome return for the labor and capital invested.

ALFALFA.—The weather this winter has been so mild in this valley, that alfalfa has afforded pasture for stock equal to summer ranges generally. Horses, cattle, sheep, hogs and fowl fatten upon it. An exchange suggests, the man who has fifty or one hundred acres of alfalfa, well rooted, is in a more prosperous and certain condition than if he had a gold mine or promising placer.

MENDOCINO.

Hops.—The hop yield of Mendocino county this year says the Sonoma *Democrat* exceeds 200,000 pounds. The average price is 25 cents per pound, and the aggregate value of the crop \$50,000. D. P. Crousteth, of Ukiah valley, harvested 2,200 pounds per acre from three acres. The average yield is about 1,000 pounds per acre. The hop product of Lake county is about 20,000 pounds. As regards hops, Mendocino is among the first counties of the State, and the amount produced largely exceeds the product of Sonoma. There are hundreds of acres of land in this county that are excellently adapted to hop culture, and we earnestly recommend this industry to the attention of our agriculturists. In Green valley and Russian river bottoms there are several hop-fields which gave a profitable return to their owners this year.

SUTTER.

LIVELY TIMES.—Sutter *Banner*, February 6: During the past week Yuba City has presented an uncommon lively appearance. Three steamers with their barges, have loaded and unloaded at our landing. The steamer "Constance" with barge "Hera," of 1,100 tons capacity. Captain Fairfield, went down Monday with 746 tons of wheat from Marcuse Bros. The large number of farmers with their teams, engaged in repairing the broken levees above and below town, make things lively. The merchants appear to be doing a thriving business. The Road Master has also a force engaged in bettering the roads. Take it all around, we never witnessed a firmer determination on the part of our citizens to improve their condition. Foot to foot, and shoulder to shoulder is the motto.

YUBA.

BARLEY ON THE TULE LANDS.—The Yuba City *Banner* learns that the people on the tule lands, in Levee district, have planted largely to barley. Last year the barley crop in that district was quite large, yielding from 40 to 70 bushels to the acre. It was found to be a valuable crop for the past season, which is one of the lowest priced years we have had, and the average is larger this season than ever before.

PATENTS & INVENTIONS.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

[FROM OFFICIAL REPORTS FOR THE MINING AND SOLVENTS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.]

By Special Dispatch, Dated Washington, D. C., Feb. 10, 1875.

FOR WEEK ENDING JAN. 26TH, 1875.

DEMJOHN.—Carlton Newman, S. F., Cal.
ORE CONCENTRATOR.—Calvin Moore and C. H. Campfield, S. F., Cal.

MACHINE FOR CUTTING HEADS FOR BARRELS.—Otto Osten, North Bend, Oregon.

SHEEP SCRATCH BOX.—Ira B. Dillon, Visalia, Cal.

ANIMAL TRAP.—Levi F. George, S. F., Cal.

GAS MACHINE.—John C. Henderson, S. F., Cal.

TRADE MARK.

FOR MEDICINAL OR MINERAL WATERS.—Henry A. Benjamin, S. F., Cal.

The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue. Note.—Copies of U. S. and Foreign Patents furnished by DEWEY & CO., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with perfect security and in the shortest time possible.

SOMETHING OF INTEREST TO THE FARMERS.

The rapid growth of our country and the constantly increasing demand for practical and durable farm machinery has brought the wind mill into almost general use. Their practical value is no longer doubted; no well-regulated farm can afford to be without them. By using and applying the free wind which our Creator has given us (which some day not far distant, will be utilized to a surprising extent), we can obtain a strong and cheap power which can be adapted to almost any extent and to every variety of work. Dry pastures can be watered, swampy lands drained, gardens irrigated, water supplied for house and barn, wood sawed, corn shelled, feed cut; meal, Graham and buckwheat flour made at home for your own use and that of your neighbors—in short all the work that is done on a large farm, and which at some seasons of the year necessitates the employment of two or three extra hands. Farmers that are improving their property and making investments will find wind mills not only a pleasure but a machine of profit. They are no longer an untried thing; that is the old, reliable mills that have been tested these seven years. No wind mill that has not been tested at least two years can be relied upon, and a wind mill that cannot stand the strain and wear of five years is not a reliable, economical machine.

There are so many new and cheap mills in the market that we feel it our duty to caution our farmers that they look at the mill and not the price, examine the record and know that the mill is one that has been thoroughly tried at least three years by some one. Wind is an unruly element, and unless a wind mill is built upon true mechanical principles and from strong and durable material, they are liable at any time to be destroyed. It costs just as much to erect a poor mill as a good one, and it will not pay to run the chance of losing your labor, time and mill for a few dollars more at the start. There is just as much difference in wind mills as in cloth. A good article costs a little more but wears enough longer to more than pay for the extra cost. Being the original inventors and first manufacturers of what is now known as the Solid Wheel Mill, we feel that it is our privilege to caution those about to purchase wind mills. We began nearly eight years ago and have faithfully protected all our mills and guaranteed their work. Our mill has been thoroughly tested, and is now in use in thirty-three States and four Territories. Seven wind mill companies are now manufacturing under our license, but none of them are allowed to make our particular mill. We have given to none the right to use our never-failing regulator, the side vane, and none of them are allowed to place their wheel and rudder in line; one or the other being off the center they are never full in the wind and cannot get the full power. By actual test and mathematical calculation we secure 16 per cent. more power than any other wind mill. We can obtain this because our fans are much wider and two inches longer on a ten-foot mill and the wheel and tail being in line the mill gets all the wind. The Eclipse is not a cheap mill except as an investment. Our mills cost \$10 more than the general average price of other mills. We can build a cheaper mill for those that wish it but having had a long experience, we know that an honest built mill can not be made cheap. We are able and willing to guarantee our work, and parties desiring something strong, durable and powerful, will consult their interests by either sending for our illustrated circular or calling on our general agent. Respectfully,
WM. H. WHEELER, Supt.
Eclipse Wind Mill Co., Beloit, Wis.

These mills are being introduced on this coast through Mr. Charles P. Hoag, of No. 18 and 20 Fremont street, near Market street San Francisco.

DON'T FAIL to read the advertisement of T. C. Maxwell & Brothers, Geneva, N. Y. They are reliable men, and have a large stock of the best of Trees, Plants, etc. It will pay you to correspond with them.

JOHN H. HEGLER,

Nos. 412 and 414 Sansome Street, S. F.

GRANGERS' DAIRY PRODUCE

COMMISSION HOUSE,

HAS EVERY FACILITY FOR SELLING

BUTTER, CHEESE,

POULTRY, EGGS

LARD, HAMS,

HIDES, BACON,

WOOL, PELTS,

POTATOES,

DRIED & CANNED FRUIT, HONEY, Etc.

J. D. YOST, San Francisco. H. S. CROCKER, Sacramento

H. S. CROCKER & CO.,

IMPORTING STATIONERS

—AND—

General Job Printers.

401 and 403 Sansome St., S. F.

PARTICULAR ATTENTION PAID TO

Manufacture of Blank Books.

BANK AND INSURANCE WORK

A SPECIALTY.

23v8-3m-16p

California Farmers Mutual Fire Insurance Association.

Office, 6 Leidesdorff St., - San Francisco.

Directors:

A. WOLF, A. W. THOMPSON, I. C. STEELE,
I. G. GARDNER, J. C. MERRYFIELD, J. D. BLANCHARD,
G. P. KELLOGG, Treas.

Finance Committee:

I. G. GARDNER, J. C. MERRYFIELD, A. W. THOMPSON

Trustees:

J. M. HAMILTON, Lake Col. C. STEELE, San Mateo Co
J. C. MERRYFIELD, Solano Co A. B. NALLEY, Sonoma Co
G. W. COLBY, - Butte Co O. S. ABBOTT, S'ta Bar's Co
H. B. JOLLEY, - Merced Co A. W. THOMPSON, Sonoma Co
A. WOLF, San Joaquin Co E. W. STEELE, S'L Orlsps Co
J. D. BLANCHARD, Pres't. W. H. BAXTER, Sec'y.

This association is organized for the purpose of affording the farmers of this State the means of safely insuring against loss by fire, at actual cost of insurance, without being connected with city risks. a822-1f

THE CELEBRATED

H. H. H.

HORSE MEDICINE

IS STILL AHEAD OF ALL OTHERS.

The Wholesale Druggists of San Francisco, give evidence of its appreciation throughout the State, by and rapidly increasing orders. We pledge it a cure for SPRAINS, WIND GALLS,

SWEENEY, SCRATCHES,

LAME AND STIFF JOINTS,

CALLONS, LUMPS,

AND ALL BLEMISHES,

SPRAINS OR BRUISES.

It is a household blessing and no family should be without a bottle in the house. For sale everywhere.

WILLIAMS & MOORE, Prop's.,

25v8-6m Stockton, Cal.

Bronze Turkeys

Emden Geese

12 Gobblers from 8

to 20 months old,

22 to 40 lbs each,

for sale now.

Hens 14 to

18 lbs.

40 to 50 pounds

per pair at ma-

tnrity.

BLACK

CAYUGA DUCKS,

Games, Brahmas, Leghorns, Houdans, Ban-

tams, etc.

Eggs, fresh, pure, true to name; well-

packed so as to hatch after arrival.

For Illustrated Circular and Price-List, address

M. EYRE, Napa, Cal.

FERRETS. RABBITS. PIGEONS.

Please state where you saw this advertisement.

LEA & PERRINS'

—CELEBRATED—

Worcestershire Sauce.

Declared by Connoisseurs to be the only good SAUCE.

Caution Against Fraud.

The success of this most

delicious and unrivalled

Condiment having caused certain dealers to

apply the name of "Worcestershire Sauce"

to their own inferior compounds, the pub-

lic is hereby informed that the only way

to secure the genuine is to ask for LEA &

PERRINS' SAUCE, and see that their names

are upon the wrapper, labels, stopper and

bottle.

Some of the foreign markets having been

supplied with a spurious Worcestershire

Sauce, upon the wrapper and labels of which the names

of Lea & Perrins have been forged, L. & P. give notice

that they have furnished their correspondents with

power of attorney to take instant proceedings against

manufacturers and vendors of such, or any other

imitations by which their right may be infringed.

To be obtained of Messrs. CROSS & CO.,

San Francisco

Jan. 23.

Nurserymen.

Established 1853.

Stocks for Nurserymen.

Plum Seedlings, Miroholan, the best French stock, does not sucker..... \$50 per 1000
 Apple Seedlings..... 10 per 1000
 Pear Seedlings..... 10 per 1000
 Cherry Seedlings, Mazzard..... 12 per 1000
 Cherry Seedlings, Mabaleb..... 20 per 1000
 Walnuts, English, 4 to 6 feet..... 15 per 100
 Cork Elm, best Elm, 4 to 6 feet..... 15 per 100
 Blue Gum or Eucalyptus, in variety..... 5 to 10 per 100
 Magnolia Grandiflora.....
 Magnolia Acuminata.....
 Magnolia Tripetala.....
 Golden Arborvitae.....
 Crataegus Arbutora.....
 Swedisch Juniper.....
 Irish Juniper.....
 Heat-leaved Arborvitae.....
 Heath, Mediterranean..... \$2 50 per doz.
 Laurustinus, 6 to 12 in..... 2 50 per doz.
 Making the growth of Oranges and Lemons a specialty, I have imported from all sources the best known varieties, and now offer five thousand Grafted Trees properly worked and twice transplanted at \$18 per dozen. Grafted oranges by the 100 or 1,000 at prices on application. The amateur in want of large PALMS, large AURICARIAS, large CAMELIAS and large TREE FERNS, a good stock on hand; also the usual large stock of fruit and ornamental trees.

BERNARD S. FOX,
 San Jose, Cal.

THOS. MEHERIN, Agent, 516 Battery Street, San Francisco. 21v83m.

Fruit, Shade and Ornamental

EVERGREEN TREES

-AND-

Plants for Sale.

At the old stand, corner Oregon and Battery streets, directly opposite Post Office, San Francisco.

I NOW OFFER FOR SALE

The Largest and Best Collection of Fruit, Shade and Evergreen Trees and Plants ever offered in this market, and at Reduced Prices.

Persons laying out new grounds would do well to call and examine our stock before purchasing elsewhere.

ORDERS FROM THE COUNTRY

Promptly attended to and packed with great care. A large stock of Cypress, Pines and Blue Gums for sale very low. Send for Price Catalogue.

Agent for B. S. Fox's Nurseries, San Jose.
 Address
 THOMAS MEHERIN,
 P. O. Box, 722, 516 Battery St., S. F.

SHINN'S NURSERIES,

NILES' JUNCTION.

Alameda County, - - California.

The attention of persons intending to set out Trees is requested to the well grown and large variety offered for sale by the undersigned at the above Nurseries. An examination of our stock will satisfy any one of the quality, being all that can be asked, and when the low prices we have fixed are taken into consideration, we believe we are offering the very best inducements for buyers to deal with us. For full particulars we refer to our circular for the approaching season, which will be sent, as requested, on application to either of the undersigned.

SHINN & CO.,
 Proprietors.

Address James Shinn, Niles, Alameda County, Cal., or, Dr. J. W. Clark, 418 California street. San Francisco, Cal. 8v17-4mo.

KING'S NURSERY,

Twenty-fifth St., bet. Telegraph & Broadway
 OAKLAND, CAL.

Fruit, Shade and Evergreen Trees, Shrubs, Roses, Etc. Persons laying out new grounds would do well to call and examine our stock before purchasing elsewhere. A large stock of EUCALYPTUS, including BLUE GUM Pines and CYPRESS from six inches to twelve feet high. Acacias in Variety; Young Stock for Nurserymen; Pines and Cypress; Three Thousand Magnolia Grandiflora from six inches to five feet high; Camellia Japonica; Gardenia Cape Jessamine; Araucarias in Variety, at Lowest Rates. Orders attended to. Address, M. KING, Nurseryman, 3v9-3m, Oakland, Cal.

PEPPER'S NURSERIES.

(Established in 1858.) PETALUMA, CAL.
 Green Houses and Tree Depot corner Washington and Liberty streets.

4 Green Houses. 3,000 feet of Glass. Fruit Trees a Specialty.

We offer for sale at lowest market rates a general assortment of Fruit and Shade trees, small Fruits, Vines etc. Evergreen trees and Shrubs in great variety. Green House, Conservatory and Bedding Plants, Roses, etc. We are now ready, Nov. 1st, to fill orders for trees and plants. Catalogue and price list furnished on application.

Address, W. H. & G. B. PEPPER,
 19v8-tf Petalums, Sonoma Co., Cal.

PEACHES, APRICOTS AND PLUMS

are specialties at the Vacaville Nursery, Solano Co., Cal. Alexander's Early, Thurber and Peento in bud, 50 cents each. Beatrice, Louise, Rivers' Early, Lord Palmerston Lady Palmerston, Prince of Wales, Princess of Wales, Picquet's Late, Lady Parham, Italian Dwarf, Golden Dwarf, Bloodleaved and many other varieties of new Peaches in bud, at 25 cents each; Trees of Alexander's Early, 31 each. P. Prince, Plowden, Freemason and a general assortment of the leading varieties, 25 cents each; Apricots, Plums, Apples, Pears, Cherries, Almonds, Figs, Olives, Pomegranates and including most of the leading varieties of fruit for sale at low prices. D. E. Mough, Vacaville, Solano Co., Cal.

FIREMANS' FUND INSURANCE COMPANY OF CALIFORNIA.

Assets:

REAL ESTATE (unencumbered) S. W. cor. Sansome and California streets.....	\$165,000 00
LOANS ON BOND AND MORTGAGE, first liens.....	120,672 00
INTEREST due thereon.....	701 42
do due and accrued on stocks.....	640 00
UNITED STATES REGISTERED BONDS, par value, \$138,500; market value.....	148,195 00
SAN FRANCISCO CITY AND COUNTY do.....	18,000 "
CALIFORNIA STATE BONDS.....	1,000 "
SOUTH CAROLINA STATE BONDS.....	10,000 "
STOCKS, BANK OF CALIFORNIA, 200 shares.....	20,000 "
do FIRST NATIONAL GOLD BANK, 100 shares.....	10,000 "
BILLS RECEIVABLE, secured by collateral, market value \$88,600—loaned.....	60,000 00
CASH in Company's Principal Office.....	5,892 86
do deposited in Bank of California.....	7,574 82
do do do Sather & Co.....	9,286 01
do do do Laidlaw & Co., New York.....	2,843 10
do do do Union National Bank, Chicago.....	6,210 00
PREMIUMS in due course of collection.....	23,431 42
NET BALANCES in hands of Managers, Eastern and Western Departments, and in due course of transmission.....	26,749 00
BILLS RECEIVABLE, not matured, taken for Marine and Inland Risks.....	22,239 75
TAXES AND STREET ASSESSMENTS advanced on Real Estate, secured by terms of original Mortgages.....	3,073 19
RENTS due and accrued.....	250 00
OFFICE FURNITURE.....	5,661 12
Gross Assets.....	\$687,469 93

Liabilities:

LOSSES due and unpaid—none.....	
do reported and in process of adjustment.....	\$31,870 61
do resisted.....	2,126 26
MARINE BILLS payable.....	83,996 86
PERSONAL ACCOUNTS.....	1,784 00
	2,159 35
Total.....	\$37,940 21

Net Assets, December 31, 1874.....\$629,529 72

COMPARATIVE.

NET ASSETS, December 31, 1873.....	\$558,418 50
NET ASSETS, December 31, 1874.....	629,529 72
Gain.....	\$71,111 22

D. J. STAPLES, President.
 ALPHEUS BULL, Vice-President.

GEO. D. DORNIN, Secretary.
 WM. J. DUTTON, Assistant Secretary.

KELSEY'S NURSERIES,

OAKLAND, - - - CAL.

Established 1852.

More largely stocked this year than any previous year. Embracing all and every kind of

FRUIT, DECIDUOUS, ORNAMENTAL AND
 FLOWERING TREES AND
 PLANTS, ETC.

Send for Catalogue and Price List free on application.

W. F. KELSEY, Prop.



BAY NURSERIES

and Seed Store.

Established 1852. P. O. Box 331.
 OAKLAND, CAL.

An immense collection of Evergreen Trees, Shrubs and Flowering Plants, wholesale and retail. I invite inspection. Catalogues on application.

JAMES HUTCHISON, Prop.

SUPERIOR FRUIT TREES TRUE TO NAME.

A fine collection of Evergreen and Deciduous Trees. Australian Gum Trees in variety, by the hundred or thousand. Monterey Cypress in quantities and sizes to suit all. Orange and Lemon Trees at reduced prices. A general variety of Nursery stock.

Also, Rhubarb and Asparagus roots.

T. CORLEY,
 18v29-tf 315 Washington Street, S. F.

Thos. A. Garey's

Semi-Tropical Nurseries.

LOS ANGELOS, CAL.

Forty varieties of the Citrus family of semi-tropical trees, including many rare and beautiful, as well as useful and profitable kinds.

Grafted and Budded Orange Trees a specialty. Trees packed to arrive in good order. Priced Catalogue sent free. Address me P. O. Box, 528, Los Angeles city, Cal.

23v4-6m

THOS. A. GAREY.

1852.

1875.

ESTABLISHED IN 1852.

THE STOCKTON NURSERY

I have for sale for the ensuing season a Large and Well Grown Stock of All Varieties of

FRUIT TREES,
 SHADE,
 ORNAMENTAL
 and
 EVERGREEN TREES.
 GREENHOUSE PLANTS, AUSTRALIAN GUMS,
 SHRUBS, ROSES, BULBS, PALMS.

* Send for Catalogue.

W. B. WEST, Stockton, Cal.

BELLEVUE NURSERY,

Telegraph Avenue, Oakland.

WE OFFER FOR SALE THE PRESENT SEASON A LARGE ASSORTMENT OF

Ornamental Trees and Shrubs
 OF BEST TRIED VARIETIES.

Many fine specimens of good size can be seen on the grounds to select from. Choice collections (true to name) put up for those starting a garden. Street cars pass every fifteen minutes.

8v9-tf S. NOLAN.

J. ROCK'S NURSERIES,

San Jose, California.

We offer this season a Complete Stock of

FRUIT AND ORNAMENTAL TREES,
 SMALL FRUITS AND PLANTS.

The attention of Dealers, Nurserymen and Planters is invited to our Large Stock of Fruit Trees. All Leading Market Varieties are grown in large quantities. To all those purchasing largely we will make a Liberal Discount. Catalogues FREE on application.

23-v8-tf JOHN ROCK, San Jose, Cal

ALMOND TREES.

35,000 Brier's Languedoc Almond Trees, one and two years old from the bud. This is the only Almond planted on a large scale, being hardy, late blooming, beautiful tree. It bears the second year from planting. The Almond is large and sweet with soft shell. Also, two year old Peach and English Walnut trees. Liberal terms to the trade and persons planting large orchards. Send orders to

W. W. BRIER,

Centerville, Alameda Co., Cal.

Metropolitan Nurseries,

Lombard Street.

Between Polk & Larkin Streets, at the Terminus of the Clay Street Hill Railroad.

MILLER & SIEVERS, PROPRIETORS.

FLORAL AND SEED DEPOT,

NO. 27 POST STREET, San Francisco.

Our stock of plants, comprising a most selected collection of Flowering and Ornamental Plants for the garden and the conservatory.

ROSES, over 200 varieties.

PINKS, 100 varieties.

DAHLIAS, 60 varieties.

PALMS, 40 varieties.

FERNS, 100 varieties.

ORANGES & LEMONS,

30 varieties.

Our assortment of Flowering Bulbs is complete. Always on hand a choice and fresh lot of

TREE, SHRUB and FLOWER SEEDS.

CUT FLOWERS, BOUQUETS, FUNERAL WREATHS and FLORAL DECORATIONS furnished at short notice and on reasonable terms.

Orders from any part of the country promptly filled.

Eucalyptus globules, (Blue Gum) seed, fresh invoice \$15.00 per pound.

New catalogue now ready, gratis on application.

F. LUDEMANN.

RUD. MICHELSEN.

PACIFIC NURSERY,

Baker St., Between Lombard and Chestnut,
 San Francisco, Cal.

P. O. Box 475.

We offer this Season a Large and Complete Selection of Well Grown

EVERGREEN AND DECIDUOUS TREES AND SHRUBS, FLOWERING AND ORNAMENTAL PLANTS

At very reasonable Prices. Our Descriptive Catalogue of Evergreens and Deciduous Trees and Shrubs, and our Wholesale Trade List (For Dealers and Nurserymen) will be sent on application. All Orders promptly filled. F. LUDEMANN & CO.

John Saul's Catalogue of New, Rare and Beautiful Plants for spring of 1875 will be ready in February, with colored plate. Free to all my customers. To others, 25 cents. A plain copy to all applicants free. Washington, D. C.

BLOOMINGTON NURSERY, Bloomington, Ill.—F. KRONIX. Spring lists free, or the set of four catalogues post free for twenty cents.

J. Y. WILSON. WM. FAULL W. L. MERRY

WILSON, MERRY & CO.,

Provision Packers

And Dealers in

SALTED AND SMOKED MEATS,
 Lard, Etc.

PROP'S BLACK POINT PACKING HOUSE.

We respectfully call the attention of Farmers and Stock Raisers to the fact that we are always prepared to purchase hogs, cattle and sheep at full market prices, for Cash, and shall be glad to answer promptly any inquiries addressed to us on the condition of the Market.

Office No. 223 Sacramento St., Near Front,
 San Francisco.

PACIFIC OIL AND LEAD WORKS,

SAN FRANCISCO.

Manufacturers of

Linseed and Castor Oils,
 OIL Cakes and MEAL.

Highest price paid for Flax Seed and Castor Beans delivered at our works.
 Office, 3 and 5 Front Street.
 Works, King street, bet. Second and Third. 1615-200v

THE CLEETON COOP COMPANY,

Of New Haven, Conn.

Are now prepared to furnish societies and individuals with

Standard Exhibition Coops

AT REASONABLE RATES.

Correspondence Solicited.

Orders Wanted at the National Employment office, 608 Market street, room 9; office crowded daily with good men and women, seeking employment; particular attention paid to country orders. 25v8-8m A. BRANDT & CO., Prop's

Seedsman.

1875. Established 1857. 1875.

Capital Nursery and Seed House

W. R. STRONG and ROBERT WILLIAMSON, Proprietors, having united their interests in the Seed and Tree business, offer to the public the largest and finest growth of both Seeds and Trees ever offered to the California public, of their own production, and also from the largest and most reliable houses of the Eastern States and Europe, all of which we offer as low as Eastern Dealers.

TREES. TREES. TREES.

Fruit, Shade, Ornamental, Evergreen, etc., raised in our Nurseries of the very best varieties. Dealers and Growers furnished at very lowest rates. Among our numerous varieties we call especial attention to BRIGGS' RED MAY PEACH, the earliest known, large, handsome of excellent flavor and good shipper.

SEEDS. SEEDS. SEEDS.

Vegetable, Flower, Field and Tree Seeds, and Flowering Bulbs and Plants.

100,000 pounds Finest Quality California ALFALFA, RED and WHITE CLOVER, KENTUCKY BLUE GRASS, RYE GRASS, ORCHARD GRASS, VERNAL GRASS, MESQUIT GRASS, TIMOTHY, RED-TOP GRASS, and every other Grass adapted to the Pacific States and Territories.

All the finer qualities of our Seeds will be forwarded by mail (post-paid) to customers at Catalogue rates, on receipt of money, which can be sent by postal orders or registered letters, or express, at our risk.

CATALOGUES AND PRICE LISTS on application, and forwarded by mail.

WAREHOUSE, 8 and 10 J street. NURSERIES, U street, SACRAMENTO CITY. TREE YARD, I street, next to Library Building.

W. R. STRONG & CO.

SEEDS. SEEDS.

Encourage home industry and make a saving of at least 30 per cent.

If you want Seed that you can depend upon as to variety and freshness, why not send your orders direct to the grower and make a saving of at least thirty per cent. on the prices of other seedsmen. Send for catalogue, free, post-paid, and compare with prices of other dealers. Just received,

Grasses, Clover, Alfalfa and Field Seeds, Fruit and Evergreen Trees, Shrubs, Flowering Shrubs, and Green-house Plants. Cabbage, Onion and Cauliflower Plants.

Large assortment of Bulbs from Holland. Address all orders or letters of inquiry, to

SEVIN VINCENT,

607 Sansome street, San Francisco, Cal

22v8-3m



My annual catalogue of Vegetable and Flower Seed for 1875, will be ready by Jan. 1st for all who apply. Customers of last season need not write for it. In it will be found several valuable varieties of new vegetables introduced for the first time this season, having made new vegetables a specialty for many years. Growing over a hundred and fifty varieties on my several farms, I would particularly invite the patronage of market gardeners and all others who are especially desirous to have their seed pure and fresh, and of the very best strain. All seed sent out from my establishment are covered by three warrants as given in my catalogue.

JAMES J. H. GREGORY, Marblehead, Mass



PLANT'S Almanac, with finely illustrated Catalogue and Price List, for 1875 mailed free to all. Every Farmer, Gardener and Nurseryman should have one.

Address PLANT SEED COMPANY,

Established 1845. ST. LOUIS, MO.

25v8-6t-cow

FLORER SEEDS. Spooner's Prize Flower Seeds Spooner's BOSTON MARKET VEGETABLE SEEDS. Descriptive Priced Catalogue, with over 150 illustrations, mailed free to applicant.

W. H. SPOONER, Boston, Mas

Fresh Osage Orange Seed At One Dollar per pound, will be forwarded by mail in one pound packages on receipt of the price. Address,

DR. STRENTZEL,

Martinez, Contra Costa Co., Cal.

SANTA CLARA.

COMPTON & BINFORD, REAL ESTATE BROKERS Employment and Intelligence Office. Horse and buggy free to see property. Offices at Compton, and corner of Court and Spring streets, Los Angeles, Cal.

THE BIRMINGHAM SHOVEL.

These Shovels have No Rivets nor Straps.

The blade is made of one piece of BEST SOLID CAST STEEL, the blade and shank being one piece.

THEY WILL WEAR TWICE AS LONG

As the ordinary shove They are the STRONGEST, BEST and CHEAPEST SHOVEL EVER MADE. Examine the engravings carefully and you can see how they are made.

THEY NEED ONLY TO BE TRIED

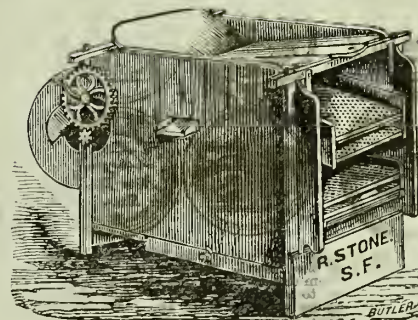
To prove their value. Prices same as ordinary shovels. Ask for the BIRMINGHAM SHOVEL. Take no other.

TREADWELL & CO., Sole Agents for Pacific States, 2v8-cow-bp San Francisco, Cal.



Agricultural Articles.

THE PATENT Novelty Mill and Grain Separator



Is one of the greatest improvements of the age for cleaning and separating grain, while it combines all the essential qualities of a first-class Fanning Mill. It also far exceeds anything that has been invented for the separation of grain. It has been thoroughly tested on all the different kinds of mixed grain. It takes out Mustard, Grass Seeds, Barley and Oats, and makes two distinct qualities of Wheat if desired.

For further information, apply to

R. STONE,

10v8-cow-3m

422 Battery street, S. F.

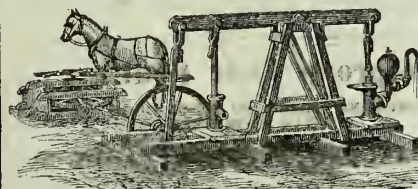
VINE AND FRUIT GROWERS,

TO RAISE LARGE CROPS

YOU MUST IRRIGATE.

To irrigate successfully, you must have the power that does not give out when the wind fails.

Laufkotter Bros. & Churchman's Horse-Power,



[PATENTED FEBRUARY 13TH, 1872.] Never fails to supply more water than four or five Windmills, even supposing you had all the wind you want. It is also suitable for running light machinery, such as Barley Cracker, Corn Shellers, Fanning Mills, Grain Separators, or for Sawing Wood. They are never failing, cannot get out of order, easily worked, substantial, and always give satisfaction wherever they have been used. One horse can easily work two 6-inch pumps, with a continuous flow of water. Force Pumps, from 3,000 to 10,000 gallons per hour. WINDMILLS of all kinds manufactured to order. Wells Bored, Windmills and Horse-Powers set in any part of the State, and repairing of all kinds done.

Manufactured and for sale by

LAUFKOTTER BROS.,

v7-2m-3m

Cor. J and 10th Sts., Sacramento.

MATTESON & WILLIAMSON'S

AMERICAN CHIEF



GANG PLOW.

Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m

MATTESON & WILLIAMSON,

Stockton, Cal.

Farmers and Threshers

WISHING TO HAVE

Straw Burning Engines

For next season must engage them soon, as most of those now building are already sold. Threshing Engines for Repairs should be sent in now. A number of Second-hand Engines—taken in exchange for "Straw Burners"—for sale cheap. For particulars and prices, address:

H. W. RICE,

2v8-3m

Haywood, Alameda County,

THE TREADWELL SULKY



GANG PLOW.

Improved for 1874, with BLACK HAWK Plow Bottoms, is the best GANG PLOW in the world. It is Simple, Strong and Durable, and does its work effectually. Has high wheels, running both on unplowed land; iron axle, wrought iron beams, and is built nearly all of iron and steel. No farmer should neglect to see it before buying. Send for descriptive circular and price. We have also the "VICTOR GANG," with hard wood beams and heavy cast iron standards; price, \$75. Also the "GOLDEN STATE GANG," with all iron beams; price \$75. "PFEL'S GANG," improved; price \$50; old style, \$25. The largest and best stock of Plows, Harrows, Cultivators, Grain Drills, Seed Sowers, Farm Wagons, etc., in the country.

TREADWELL & CO.,

18v8-tt

San Francisco

CREGO & BOWLEY,

Importers and Manufacturers

—OF—

CARRIAGES and WAGONS,

No. 9 Merchant's Exchange,

CALIFORNIA STREET.....SAN FRANCISCO

Keep constantly on hand top and open Buggies, top and open Rockaways, Jump-seat Buggies, Track and Road Sulks, Skeleton Wagons, Basket Phaetons of the very latest styles and finest workmanship.

We would call particular attention to our fine stock of light Road and Trotting Wagons, made to order by the following celebrated makers:

Charles S. Coffey, Camden, New Jersey; Helfield & Jackson, Rahway, New Jersey; Gregg & Bow, Wilmington, Delaware;

And the first-class makers, which we are prepared to sell on the most reasonable terms.

Also, a large assortment of single and double Harness, of the most celebrated makers:

O. Graham, New York; J. R. Hill, Concord; Pittkin & Thomas, Philadelphia.

Also, a full assortment of Dress and Light Blankets,

Fur and Lap Robes, Whips, Halters, Surcingles, etc., at wholesale and retail.

CREGO & BOWLEY,

24v5-3m

San Francisco.

Notice—To Tule Land Owners.

I am manufacturing a Gang Plow specially adapted to ploughing Tule Lands. Address

Vallejo Foundry, J. L. Heald, Prop.,

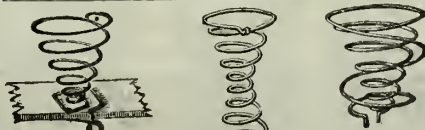
18v29-3m

VALLEJO, CAL

Allen's Planet Jr. Silver Medal

Has Dressed and Waxed Hoes. Three new styles. They "sow like a charm," and hoe better, easier, and six times faster than the hand hoe. S. L. ALLEN & CO., Mfrs. 119 S. 4th St., Phila., Pa. Circulars free.

A LIVE AGENT WANTED in every town.



Self-Fastening Bed-Spring.

Double-Spiral Bed-Spring.

We manufacture all sizes of BED and FURNITURE SPRINGS, from No. 7 to the smallest Pillow Springs; also, the Double Spiral Spring, which is the most durable Bed Spring in use. It is adapted to upholstered or skeleton beds. We have the sole right in this State to make the celebrated Obermann Self-Fastening Bed Spring. Any man can make his own spring bed with them. They are particularly adapted to Farmers' and Miners' use. Send for Circulars and Price List to

WARNER & SILSBY,

14v28-cow-bp-3m

147 New Montgomery St., S.

BELLA UNION HOTEL,

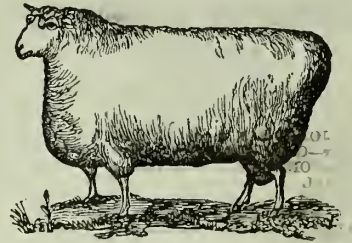
JOHN F. MILLER, Prop.,

SAN BERNARDINO, CAL.

This fine hotel is situated in one of the best parts of the city, and the proprietor will at all times use his best endeavors to promote the comfort of his guests.

Commission Merchants.

B. W. OWENS, San Francisco. | E. MOORE, Stockton, Cal



OWENS & MOORE, COMMISSION MERCHANTS,

DEALERS IN

WOOL, HIDES, PELTS AND CRAIN.

Office—405 Front street, S. F. 14v7-3m

H. K. CUMMINGS, 1858.

H. H. BALSTON, 1875.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission House,

ESTABLISHED 1868.

No. 424 Battery street, southeast corner of Washington, San Francisco.

Our business being exclusively Commission, we have interests that will conflict with those of the producer. 4v23-1y

Davis & Sutton, Commission Merchants,

For California Fruits: also for the sale of Butter, Eggs Cheese, Hops, Green and Dried Fruits, etc., 75 Warren street, New York. Refer to Anthony Halsey, Cashier, Traders' National Bank, N. Y.; Ellwanger & Barry, Rochester, N. Y.; C. W. Reed, Sacramento, Cal.; A Lusk & Co., Pacific Fruit Market, San Francisco, Cal.

Miscellaneous Notices.

POISON! POISON! WAKELEE'S PATENT

Granulated Squirrel Exterminator.

A NEW AND MOST DESTRUCTIVE POISON FOR THE WORM PEST OF CALIFORNIA.

For years the farmers of the Pacific Coast have been spending money in experimenting to find a safe, cheap and efficient way of ridding their grain fields of their worst enemy, THE SQUIRRELS, which destroy Millions of Dollars' worth of grain every year; and unless a strong and combined effort is made to kill them off, they will become more numerous every year.

Wakelee's Granulated Squirrel Exterminator

Is just the thing the farmers of California have been looking for. It is SURE DEATH. One or two grains of it will kill a Squirrel so quick that if it is five feet from his hole it dies before it gets there. The Poison is put up dry and in granular form, and easily handled; in one pound tins at \$1 per pound. It goes a great way, as 10 to 15 grains of it are sufficient to place at each hole. Also successfully used for killing Gophers and Rats. It has been thoroughly tested in different parts of the country, and gave universal satisfaction. It is kept and sold by druggists and dealers generally through the country. The following are some of my testimonials, viz:

SANTA CLARA, April 20th, 1874.

H. P. WAKELEE, Esq. :—Your Squirrel Exterminator was used according to your directions, on my Quila Farm with excellent success, and in my estimation is just the thing the farmers want to kill their Squirrels.

J. R. ARBUJELLO.

SAN LEANDRO, Cal., April 3d, 1874.

H. P. WAKELEE, Esq. :—Dear Sir: I have given your Squirrel Exterminator a fair trial and find it to be an economical and very destructive preparation, and I can safely recommend it to our farmers.

J. M. ESTUDILLO.

DOUGHERTY STATION, Alameda Co., Cal. MR. H. P. WAKELEE, San Francisco: I have used your Squirrel Poison and found it to be just what you claim for it. It is sure death. Yours, O. M. DOUGHERTY.

H. P. WAKELEE, Druggist, Cor. Montgomery and Bush streets, S. F.

Hooper's South End Grain Warehouse.

Japan and Townsend Streets.

SAN FRANCISCO, July, 1874. I beg to inform you I have leased the above first-class Fire-Proof Brick Warehouse, now being erected by Geo. F. Hooper, Esq., and will be ready to receive storage on the 1st of August. This warehouse offers superior inducements to parties desiring to store grain and flour, as it is situated on the Water Front, and on the line of the C. P. R. R. and S. P. R. R. It is well ventilated, rat proof, and combines all the modern advantages and improvements. Yours respectfully, JOHN JENNINGS.

Advances and insurance effected at the lowest rates. Storage taken at lowest current rates. 4v8-ft

HOP ROOTS FOR SALE.

I have a lot of choice HOP ROOTS, and also healthy BLACKBERRY SETS for sale at LOWEST RATES. Orders may be addressed through DEWEY & Co., of the Rural Press, San Francisco; ROBT. WILLIAMSON, Capital Nurseries, Sacramento; or to me,

CALVERT T. BIRD,

San Jose, Cal.

SANTA BARBARA COLLEGE,

SANTA BARBARA, CAL.

A Boarding School for Boys and Girls, offering all the advantages of a thorough modern education. French, German, Spanish, Latin, Greek, Drawing, the Natural Sciences, Gymnastics and Dancing taught without extra charge. Vocal and instrumental Music receive particular attention. Pupils furnish only a pair of heavy blankets. Next term opens January 6th, 1875.

Write for Catalogue to ELWOOD COOPER, President Board of Directors.

Brittan, Holbrook & Co., Importers of Stoves and Metals, Tanners' Goods, Tools and Machines, 111 and 113 California, 17 and 19 Davis streets, San Francisco, and 178 J street, Sacramento

Grangers' Bank of California

INCORPORATED APRIL 27th, 1874.

Capital \$5,000,000, in 50,000 Shares
of \$100 each.

Directors:

PRESIDENT—JONATHAN V. WEBSTER..... Alameda
V. PRESIDENT—O. J. CRESSEY..... Stanislaus County
THOMAS McCONNELL..... Sacramento
JOHN G. HILL..... Yuba County
J. V. WEBSTER..... Alameda County
JUSTICE O. MERRYFIELD..... Solano County
J. LEWELLIN..... Napa County
GILBERT W. COLBY..... Butte County
J. P. CHRISMAN..... Contra Costa County
F. J. WOODWARD..... San Joaquin County
C. S. ABBOTT..... Monterey County
F. A. CRESSEY..... Secretary.

Office, 415 California Street,
SAN FRANCISCO. - - CALIFORNIA.

The Bank was opened on the first of August, 1874, for
the transaction of ordinary Banking business.

Current Accounts are opened and conducted in the
usual way, and interest at the rate of $\frac{1}{4}$ per cent per
month is allowed on the minimum monthly balance.

Deposit Receipts in sums of \$50 and upward received,
and receipts given for the amounts, repayable on 30
days' notice of withdrawal. These deposits bear interest
at rates varying with the current rate of discount.

Deposits for Fixed Periods are received, and interest
allowed at the following rates: Three months, 6 per
cent.; Six months, 7 per cent.; One year, 8 per cent.
A share of the patronage of the public is solicited.

CHAS. TALBOT.

J. E. FLIGGLE.

Grangers' Scandinavian American
Employment Office,

No. 6 Leidesdorff Street.

Special attention paid to furnishing German, Scan-
dinavian and American Help of all kinds, MALE and
FEMALE; clerks, farm hands, dairymen, woodchop-
pers, mechanics, cooks, chambermaids, women to do
general house-work, nurses, etc.

The superiority of these German and Scandinavian
laborers over all others is acknowledged by all who
have become acquainted with them. They are healthy,
strong, INDUSTRIOUS, sober, intelligent and WIL-
LING. They come to our country to stay. They work
faithfully for a stake, and consequently do not wish to
run about from place to place.

Orders for CHINESE SERVANTS will be carefully
filled. Farmers in the country ordering Chinamen
should be particular in stating the kind of work and
wages, so that we can select proper men. Vegetable
men, gardeners, and fruit and berry growers desiring
a number of Chinamen will be supplied on short no-
tice. All orders should be addressed

TALBOT & FLIGGLE,
No. 6 Leidesdorff Street, S. F.

PATENT
ELASTIC PEN-HOLDER.

This Holder is furnished with a pair of elastic rubber
air-cushions, which render a steel pen as flexible as the
old-time goose quill pen.

Provide an easy hold, that does not cramp or tire the
fingers.

Protect the fingers and desk from ink stains.
The fingers acquire a delicate touch that enables a
person to obtain a beautiful hand-writing.

The elasticity of the pen can be adjusted to suit any
hand, by simply sliding the pen up or down.

Sent by mail, on receipt of Seventy-Five Cents.

JOHN S. ORNDORFF.

Money Order Clerk,

Feb 13. 1m-bp.

Virginia, Nev.

UNIVERSITY OF CALIFORNIA,

COLLEGE of AGRICULTURE.

The second course of Lectures by PROFESSOR BE-
SEY of the Iowa Agricultural College will begin

Tuesday, February 8th, 1875.

His Subject will be

"Improvement of Varieties in Plants and
Animals."

The Lectures will be given daily, except Fridays, at
3 o'clock, at Berkeley. The Public are invited to at-
tend.

MAPLE LEAF NURSERY

Has constantly on hand all varieties of
Fruit, Ornamental, Evergreen
and Deciduous

Trees and Shrubs.

Also, a large assortment of

Choice Roses & Greenhouse Plants

Flowers and Bulbs,

Garden, Grass and Flower Seeds of all kinds. For
sale by

L. M. NEWSOM,
No. 151 East 12th St.,
Near Tubbs' Hotel. Brooklyn, Alameda Co., Cal.

No Agents are authorized to receive subscriptions for
this paper at less than our advertised rates.

DURYEA'S SATIN GLOSS STARCH
AND
DURYEA'S IMPROVED CORN STARCH

Are the Best in the World.

USE IT ONCE AND YOU WILL USE NO OTHER.

For Sale by All Grocers.



The Messrs. Duryea have succeeded in refining Starch to entire purity and developing its entire strength and clear-
ness, an improvement that will be readily perceived in the great strength of the Starch, the superior luster that it
gives, and in its reliable uniformity. Much of the so-called starch contains from one-fourth to one-third foreign mat-
ter, readily perceived by sourness, mustiness, or a golden yellow tinge, peculiar to inferior starches, a color not desir-
able for one's linen, but inseparable from the use of common starch. They pledge themselves to the public to give a
uniformly superior article, from one-fourth to one-third stronger than any other starch in the world, and at the com-
mon market rates.

EGERTON, ALLEN & CO., Sole Agents for the Pacific Coast,
San Francisco, California.

RELIABLE.

UNEQUALED

THE

ONE PRICE DRY-GOODS HOUSE,

42, 44, and 46, Third Street, San Francisco.

THE GOODS ARE ALL MARKED, IN PLAIN FIGURES,

PEIXOTTI & SILVERMAN.

GABILAN HERD

SPANISH MERINO SHEEP.

I have just purchased of Mr. George Hammond, of
Vermont, three car-loads of Spanish Merino Sheep,
(335 head, Ewes and Bucks) which, with others that I
purchased last Fall, (also direct from Vermont) makes
my band of Thoroughbred Spanish Merinos about 650
head.

I am prepared to sell both Bucks and Ewes, of Pure
Blooded Spanish Merinos—as good as can be had in
the World—so says Mr. Hammond. Parties interest-
ed will please give me a call. I am ten miles from
Salinas City, Gabilan P. O., Monterey county.

J. D. CARR.

N. B.—I have also Good Graded Bucks for sale, and
can dispose of some Good Graded Ewes. J. D. C.

SEEDS.

PLANTS.

OF EVERY VARIETY.

Fresh and reliable, such as experience and care only
can select.

GRASS AND CLOVER SEEDS, KENTUCKY BLUE
GRASS, HUNGARIAN, ORCHARD, ITALIAN RYE,
RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL,
CHOICE CALIFORNIA ALFALFA, WHITE CLOVER,
RED CLOVER, Etc.

Also, RAMIE, JUTE AND TOBACCO SEEDS; to-
gether with a fine and complete collection of TREE
SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGAN-
TEA, PINUS INSIGNIS, Etc.

For Sale, wholesale or retail, by

B. F. WELLINGTON,

(Successor to E. E. Moore).
425 Washington St., San Francisco. 227-1y

ALEX. BUSWELL.

BOOK BINDER, PAPER RULER

AND BLANK BOOK MANUFACTURER.

521 Clay Street, S. F.

Blank Books Ruled, Printed and Bound to Order

Geo. W. Chapin, Real Estate Agent, 434
Montgomery St., San Francisco, buys and sells Ranches
in all parts of the State. City Real Estate exchanged for
Country Property. MONEY LOANED. Post Office Box 1120

Improve Your Poultry,

IT COSTS NO MORE TO KEEP GOOD FOWLS
THAN POOR ONES!

OAKLAND POULTRY YARDS,

Cor. 16th and Castro streets, Oakland, Cal.



WHITE LEGHORNS.

Called THE POOR MAN'S FOWL. Eggs, \$6 per doz;
Fowls, \$20 to \$30 per pair; Single Cocks, \$10. A new
importation of J. Boardman Smith & Pitkin's celebrated
strains just received. Stock guaranteed perfect in
markings—white ear lobes, etc. No inferior stock sold
at the Oakland Poultry Yards for any money.

For further information send stamp for illustrated
Circular, containing a full description of all the best
known and most profitable fowls in the country, to

GEO. B. BAYLEY,

Importer and Breeder of Blooded Fowls.

Box 659, San Francisco.
Purity of all Stock and Eggs sold absolutely guaranteed.

PUMPS SLUTHOUR PUMPS

Are sold 50 per cent. under any other in the market,
considering the amount of water obtained for the
power applied. They have now been fully tested for
IRRIGATION, and entire satisfaction is guaranteed.
Call and see them, or send for Circulars.

J. M. KEELER & CO., Agents,

306 California Street, San Francisco.

For the very best Photographs go to BRAD-
LEY & KILFONSON'S GALLERY, with an "Elevator"
429 Montgomery street, San Francisco. 227-6m

\$5 to \$20 Per Day at home. Terms free. Ad-
dress G. STINSON & Co., Portland, Me.

NEW CROP OF

BLUE GUM SEED.

GRASS AND
CLOVER

SEEDS.

FLOWER AND
VEGETABLE

SEEDS.

TREE AND
FRUIT

SEEDS.

OF EVERY DESIRABLE VARIETY AND OF THE
BEST QUALITY; OFFERED AT WHOLE-
SALE OR RETAIL, BY

GEO. F. SILVESTER,
SEEDSMAN,

No. 317 Washington Street,

2478-4f

SAN FRANCISCO

FOR FRUIT, ORNAMENT
FOR TREES FOR

PLEASURE, PROFIT,
WHOLESALE AND RETAIL.

Pears, Apples, Cherries, Peaches

Plums, Quinces.

Small Fruits.—Grapes, Currants, Raspberries, Black-
berries, Strawberries, Gooseberries.

Ornamental.—Weeping and Standard Trees.

Evergreens.—Common and New and Rare.

Shrubs.—Variegated-leaved and Flowering.

Roses.—Moss, Tea, Climbing and Perpetual.

Clematis Jackmanni is perpetual, hardy, lives
easy, grows fast, and flowers the first year.

12 sorts Perpetual White Clematis and fifty
new varieties of many shades of colors. Strong
plants safely sent by mail.

Good Plants sent by mail, post-paid, as follows:

6 Choice Roses for...\$1 00 13 Choice Roses for...\$2 00

8 Variegated-leaved and Flowering Shrubs for...\$1 00

13 Variegated-leaved and Flowering Shrubs for...\$2 00

500 Acres } T. C. MAXWELL & BROS.
of Nursery. } Catalogues Free. Geneva, N. Y.

1874. GUIDE AND CATALOGUE 1875.

FREE.

To persons contemplating purchasing I will send
my ILLUSTRATED, DESCRIPTIVE CATALOGUE and GUIDE
to the VEGETABLE and FLOWER GARDEN WITHOUT
CHARGE. It contains the most extensive and valuable
list of



Flowering Bulbs, Roots and Plants, Semi-
Tropical Trees, Ornamental Shrubs, Fruit
and Shade Trees, etc., ever offered in this market.
It tells how to successfully grow the Australian
Blue Gum, the Monterey Cypress, Pine,
etc., and the proper method of Cultivating To-
bacco on this Coast.

My stock of seeds is in part my own raising
and in part direct importations from the best Euro-
pean and Eastern growers, and is unsurpassed in all
respects by that offered by any other establishment.
100,000 Australian Blue Gums and Mon-
terey Cypress in boxes at from \$30 to \$50 per
1,000, raised at my own Nursery at San Rafael.

R. J. TRUMBULL,

Grower, Importer, Wholesale and Retail Dealer in
Seeds, Shrubs, Trees, etc.

20v8-Gm-16p

427 Sansome street, S. F.

M. FALLON,

Cor. Seventh & Oak sts.,

OAKLAND, CAL.

Light & Dark Brahmas,

Buff, White and Par-

tridge Cochins,

Spangled, Golden and Silver Polish,

Spangled, Golden and Silver Hamburgs,

Pure White-faced Black Spanish,

White and Brown Leghorns,

Silver Grey Dorkings,

Houdans, Silkies, Black-Red Games,

Bronze Turkeys, Rouen and Aylesbury Ducks.

All from Premium Stock of Best Strains.

Fowls of above varieties for sale; also, Chicks in their
season. Eggs packed with care and sent in rotation as
orders are received. 1v8-16p-1f

HEALD'S
BUSINESS COLLEGE,

No. 24 Post Street, San Francisco.

The largest and best Business College in America.
Its teachers are competent and experienced. Its pupils
are from the best class of young men in the State.
It is under the very best discipline. Its scholarships
are good in the THIRTY-SIX Bryant & Stratton Colleges.
It employs four of the best penmen in the State. It has
the largest rooms, the largest attendance, and the most
complete system of business training of any commer-
cial school in the country.

For information, call at the office, 24 Post street, or
address, for circulars,

E. P. HEALD.

President Business College, San Francisco.

PACIFIC RURAL PRESS

Volume IX.]

SAN FRANCISCO, SATURDAY, FEBRUARY 20, 1875.

[Number 8

Those Botanical Specimens from Auburn.

A few weeks since we received from a correspondent at Auburn, Placer county, a box containing four specimens of shrubs found in that vicinity, with the request that we give the botanical names of the same. The delay in answering the questions has not been from neglect or lack of interest in the matter, but, to use a slang phrase, we were simply "stuck" on one of the specimens—a very unenviable situation, for it is one of the thorniest bushes that we ever came across, or that ever came across us, being, as our correspondent says, "no doubt the most valuable fence shrub in the State, as no animal could venture in contact with it." This being the case, our delay in getting through it will undoubtedly be excused. And even now we are only able to give the family to which it belongs, and which we will notice in the order in which they are numbered.

"Number one," our correspondent says, "is a large bush; grows on a rich red soil, on a hill close by Auburn; in the spring has a profusion of fragrant, white, pendulous, bloom, much frequented by bees; bears some resemblance to the chimasal, or common chaparral bush." This is the *ceanothus divaricatus*. White Thorn.

"Number two is a large shrub or bush found on the hills of the North Fork of the American river, between Auburn and said river; it is rather scarce, the bush from which the accompanying twig was taken is a large symmetrical, and fully as large as the largest manzanita, and fearfully armed with thorns like the specimen sent you. Would no doubt be the most valuable fence shrub in the State, as no animal could venture in contact with it."

This is the thorny shrub which we failed in getting through—botanically—though we did "venture in contact with it," thereby proving that we are "no animal." We are satisfied, after showing the specimen to several botanists, that it is a species of mesquit. If our friend will send us a specimen of the shrub while in blossom, we could no doubt place it where it belongs in botany.

"Number three grows on rocky, shady, and other moist and sheltered ground. It is found in abundance on Bear river, and intermediate points between Auburn and Bear river; grows from two and a half to five feet high." This is the *symphoricarpos racemiflorus*, or snow-berry.

Our correspondent says in regard to number four: "Every body is familiar with the shrub which I mark number four, yet none of us know its proper classification." It is the *photinia parvifolia*, or laurel thorn.

The Scuppernong Grape.

A party writes us from Visalia, making enquiries about the scuppernong grape. We have withheld a reply for the reason that we could obtain no reliable information on the subject, and shall, for the present, have to give it up. It seems to be best known in the Southern States, particularly in Alabama. As a wine grape it is said to be very valuable; and from what little knowledge we can obtain concerning it, we are disposed to think that it would prove a decided acquisition to our vineyards. Will our friends at the South and elsewhere enlighten us on the subject?

The same correspondent asks information on two other points: First, how to grow the Eucalyptus; second, would those cheap nursery boxes, the material for which is prepared by the Union Box Factory in this city, be available in the early stages of the Eucalyptus growing? In regard to directions for growing this tree, we would refer him to the *RURAL PRESS*, of January 2d, in which he will find this subject thoroughly treated by Dr. W. P. Gibbons. This covers the whole ground. And as to the boxes, we would say that we believe for transplanting from the seed-bed, they would be just the thing. We have conversed with some nurserymen on the subject, and they agree with us.

California River Scenery.

Our California rivers are not much to boast of as navigable streams, but the majority of them serve the useful purpose of furnishing water for irrigation and mining purposes. All of the California rivers are apt to be very high at certain times, and very low at other times,

on account of our long wet and dry seasons; and the average rise and fall is much greater than is usual in water-courses in other parts of the world. The scenery on many of the rivers is picturesque and grand; and this occurs, of course, more especially on those which are not navigable. The Sacramento and San Joaquin, for instance, present few points which would catch the eye of a lover of nature, while the smaller rivers in the interior afford a abundance of material for the artist's easel. In many places the face of nature has been so scarred by the hand of man in his search for gold as to remove any beauty there may originally have been. In other places, however, the nature of the country is such that even if the miners have delved there, its beauty still remains. Such a scene as this is shown in the accompanying engraving, which represents a scene on the Cosumnes river. The small and swiftly flowing river is confined within its narrow limits by precipitous, chaparral-covered hills, and winds in and out at the bottom of the ever changing cañon in its course to the sea, with a vigor only seen in mountain streams. When the snow in the mountains is melting the river booms with impetuous haste on its way, as if angry at being confined within such narrow limits. Towards the end of the summer, however, its appearance changes greatly, as it then flows on quietly, apparently gathering strength for its winter work.



Scene on the Cosumnes River.

get his fore feet over them. At the same time the reins when thrown over the dashboard are less liable to get under the horses feet and tail. The inventor points out that in similar devices, which keep the reins taut, the horse is apt to put his tail

THE RATTLE WEED.—We are requested by Dr. Kellogg, who recently read before the Academy of Sciences of this city, an article on the poisonous properties of the "Rattleweed," to ask the readers of the *RURAL PRESS* for any information which they possess concerning this troublesome weed. Theories, surmises, and hearsays, will, we fear, hardly be appreciated by the matter of fact Doctor; but any facts which our friends may possess on this subject will be thankfully received by the *PRESS* and will be transferred to Dr. Kellogg. Reports of a very serious character have gone abroad and there is no doubt that this is a dangerous weed, one from which various kinds of stock suffer severely. The matter should be thoroughly investigated.

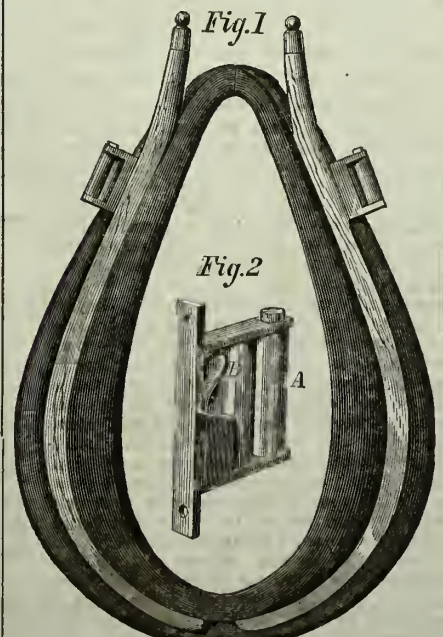
A NEIGHBORLY HINT.—We are always glad to have the *Sacramento Valley Agriculturist* come to our editorial table and always pleased to find articles from the *RURAL PRESS* re-published in its columns; but the pleasure would be still more "deeply elevated," as the Irish girl said, if our neighbors would give us credit for such articles as that entitled an "Extensive Ditch Enterprise," which appeared in the *Press*, Feb. 6th and was the following week re-published in the *Sacramento Valley Agriculturist*.

Smith's Improved Rein Holder.

This improvement is intended to prevent the fastening of the reins to the bridle in a twisted condition; also to keep the former from falling under the horses feet when unattached to the bit, or from dropping under the tongue of the vehicle. The device is represented in our illustration secured to the harness

and also separately in Fig. 2. It consists of a simple metal casting, having one pivoted roller, A, and another not pivoted but forced in close contact with the first by means of a spring, B. The rein is passed through between the rollers and thus supported.

On work harness the rein holder should be made pendent to conform to the position of the reins. On light harness it may take the place of the terret, and thus, it is claimed, be of greater service than a rein holder secured to the carriage, since it keeps the reins up in front of the animal, so that he cannot get his fore feet over them. At the same time the reins when thrown over the dashboard are less liable to get under the horses feet and tail. The inventor points out that in similar devices, which keep the reins taut, the horse is apt to put his tail



Smith's Improved Rein Holder.

over, and so pulling on the lines, to cause himself to back, thus breaking the hitching strap, a difficulty evidently obviated by the present invention. When used on backpad of harness the rein holder should be made of terret form where it is secured to pad, with rollers grooved for round reins. This device was patented by A. K. Smith, of Nebraska, Pickaway county, Ohio, who may be addressed for further information,

A New Street Pavement.

The question of street pavements seems to be the puzzle of the day. It is an admitted fact that after many years of trial of cobble, wood McAdam, granite blocks, etc., we have not yet found a material which gives anything like satisfaction to property owners. Each in turn has been discarded, and each has again been resorted to as a desperate make shift to bridge over the present until something can be found which shall more fully meet the necessities of the case. Just now stone blocks appear to be in the ascendant; but no man of experience, in such matters, who has observed the manner in which they are being put down in this city, can have any confidence that they will result in any very material advantage over the ordinary cobble stones on streets, subjected to heavy traffic.

Many of our citizens have taken quite a lively interest in what is known as the "Van Camp" patent for street paving, samples of which were on exhibition at the late Industrial Fair in this city, and, more lately, at No. 607 Montgomery street. This is an asphaltum pavement, composed of asphaltum and finely crushed rock, put together with just the quantity of asphaltum which is needed to form with the rock a firm hard cement.

This material differs in several important particulars from the so-called asphaltum employed for making sidewalks in this city. The latter is composed largely of coal tar, barrels of which are poured into the tank and mixed with a small quantity of asphaltum and small, smooth stones, forming a compound but slightly adhesive, and readily softening under the rays of a warm sun. The "Van Camp" pavement contains no coal tar whatever, asphaltum alone being mixed with finely crushed rock, whose rough, angular faces greatly contribute to the firmness and durability of the material. The rock and asphaltum are brought together while both are in a heated condition so that a minimum quantity of the former suffices to effect the necessary cohesion.

It is well known that coal tar and its mixtures, when it becomes hardened, will break up and fall to powder under the action of wheels and hoofs, and pass away before the winds, while asphaltum, under like conditions, owing to its bituminous character, resists friction and wear. The "Van Camp" asphaltum pavement is not made in blocks but is laid down in a solid mass five inches thick from curb to curb, forming a highly resistable but slightly flexible and continuous covering to the entire street. It is perfectly water tight, neither contracting nor expanding under changes of temperature, and of course, not liable to local depressions and a gradual breaking up, as is the case with blocks and cobbles. It is also perfectly free from all odor and hence especially desirable in a sanitary view. It is as noiseless as wood, slightly elastic, never becomes slippery and subjects wagon tires and horse shoes to the minimum amount of wear.

In proof of its durability we are informed that it has been in constant use upon one of the principal streets in Chicago over five years, during which time it has manifested no signs of wear or depreciation. We are also assured that one of the chief engineers of that city has reported upon it in the following language: "It has not had one cent expended upon it for repairs since laid; shows no perceptible wear, and bids fair to run for twenty years without repair." The same pavement has also been laid on two squares in Louisville, Ky., where it is giving equally good satisfaction, and stands the summer heat in that climate without any deterioration, although it is in a locality where heavy six-mule teams are daily passing over it. Of course parties interested can readily verify the correctness of the statements if they desire to do so.

We understand that negotiations have been completed to give this pavement a fair trial in this city, and works have been erected near the foot of Fourth street for manufacturing it on a large scale. To all appearances it is all that is claimed for it, and we are pleased to see an inclination manifested to give it a fair trial. We are certainly in great need of a better pavement than we now possess, and should be rejoiced to see this prove the very thing that is needed.

CORRESPONDENCE.

[The RURAL PRESS, in opening the columns of this department to its correspondents, does not desire to lay before its readers anything which is not in keeping with its character and position as an agricultural and family paper. Facts are always thankfully received; and suggestions and matters of opinion on subjects connected with agriculture are also acceptable; though correspondents are to be understood as speaking for themselves and not for the PRESS.]

Dress Reform.

EDITORS PRESS:—Seeing the communication of sister C. A. C. in the RURAL, it revives the spirit of dress reform so much that I feel like offering a few words on the subject.

Ten years ago I spent five months in a school in New York, where a part of the instructions were gymnastics. The ladies could not take the gymnastic exercises wearing the ordinary cumbersome dress; so they unanimously adopted a short, convenient style—one that would admit of perfect freedom of motion, hence I have realized the benefit of a convenient style of dress.

First I will say I admire beauty and taste in dress as much as any one, but the styles go beyond the mark of consistency; are inconvenient, unhealthy, and some of them are anything but beautiful. The tight corsets and belts will not admit of perfect breathing, circulation of the blood, and thorough digestion. The skirts are made too long and too heavy, both of which are a direct tax upon woman's vitality. There are often as many as half a dozen thicknesses of cloth worn on the waist while the arms have but one or two thicknesses on, and the stockings are but little thicker than mosquito bars.

What change can be made for the better? First, an underwaist of drilling or cotton flannel made to fit the form, but not so tight as to obstruct breathing; it should be made nearly as high around the neck as a dress, and extend a few inches below the hips, should have some large buttons at equal distances apart, to button drawers to. The underwaist should have long sleeves or else the dress sleeves should be lined so as to clothe the arms as warm as the body. It may be embroidered or trimmed to suit the taste.

The drawers should be made of drilling or cotton flannel for winter. The stockings for winter should also be made of thick material, or two pair should be worn. The underwaist is a substitute for a corset and, and the drawers may also be a substitute for a chemise. Some prefer to wear a chemise also. Next to the underwaist should be worn a skirt-supporter of strong material, and made like men's suspenders, except that where men's suspenders buttoned on to pants, ladies' are attached to a band button which is sewed on to the band, and all the skirts worn should be suspended from the skirt supporter.

This improvement in the underclothing can be made without bringing down the censure of Madam Grundy. I have never seen a lady put on this improved rig of underclothes who did not say she felt as though she was emancipated from bondage, so great is the relief to be freed from the weight of the skirts around the waist. And corsets with stays pressing endwise upon the abdomen, as they do whenever the wearer gets into a stooping position, are the cause of more derangement, disease, and suffering than most people are aware of. One or two under-skirts, if made of the right kind of material, is enough. Muslin or cotton flannel for the underskirt, and muslin starched stiff for summer, and mohair or some stiff worsted goods for winter. The dress skirt should never be made to touch the ground, nor trimmed so much as to cause unnecessary weight. One flounce, a few rows of lace, a few rows of bias goods, looks as well as a mass of flounces or other heavy trimming. The dress-waist may be made in numerous ways that are both pretty and convenient. The polonaise now worn has no fault except the bustle, and that is not objectionable when worn in moderation; but such immense protuberances as ladies make of them suggests the idea of deformity.

A very good general rule to adopt in dress is to not follow the style into any excess, extravagance or inconvenience. After adopting this rule, and discarding all the absurd, ridiculous styles, there is yet an endless variety left to choose from. The material for dresses should vary according to the season, the taste and the ability of the wearer. It is economy to select with a view to durability. Waterproof, empress-cloth, or other durable goods for winter, are cheaper in the end than goods that cost less. Calico and linen are both very good material for summer.

The fashion magazines are issued with a view to produce frequent and radical change, draining the pockets of the masses and filling those of dry goods merchants, dress makers, and milliners. Now, sisters, if we co-operate in the movement we can effect a reform in dress that will not only economize our money, but, what is still better, our vitality. I hope the brothers will encourage such a movement. If there are any who will not, I suggest that they put on a woman's dress with heavy, trailing skirt and all other inconveniences, wear it one day and try to do a day's work, and see if they don't change their minds.

Mrs. N. A. PICHENS, M. D.
Riverside, Cal.

Apples in Tuolumne County.

EDITORS PRESS:—It is understood here that apples have struck a bonanza in San Francisco. It astonishes even the natives of this county to know where the apples come from which pass over the county road, to seek a market in your city and Stockton. Two days ago, 12,000 pounds with one large and one small team passed along the road. To-night one team is at my place loaded with 10,000, and so it goes day after day, and shippers cannot get teams to take the stock away as fast as is desired. Empty teams return from Oakdale to load with apples, reversing the former order of business. The apples are all neatly boxed, some 50 or 60 pounds per box.

When the mountains of marble and plumbago is fairly tapped down, freight will be in the ascendancy. With the timber facilities, sash and blind factories would add to the wealth of our county. Tuolumne county is favored with a climate unsurpassed in California, and has within herself the means of manufacturing and commercial wealth, which must sooner or later make her one of the richest counties of the State. Every variety of fruit known can be successfully raised throughout her foothills and valleys. While potatoes in other sections of the State are blighted and blasted, our mountain potatoes surpass in richness of flavor and soundness of core the famed "Murphys" of the Green Isle itself. Enough has been raised above Sonora, amongst the sugar pines, to supply the demands of the county, also supplying the Granger on the plains. The superiority of the mountain potatoes over all others is acknowledged by all lovers of the succulent root. To be independent of your city for even potatoes is something to our credit.

There is also a flow of gold coin for our large crop of apples from your city, which will help build up the small and large gardening interests. The Grangers are getting alive to the cultivation of fruits. Soon oranges will be a thing of beauty and profit; lemons and limes will follow. We wish to stimulate this branch of agriculture, for the wealth of the county depends on what she can produce the best. All lovers of fine-flavored fruit acknowledge the superiority of mountain fruit, over that which is raised in the valleys. All that is required to insure success is capital, muscle and the "know how." We have soil, climate and water which are the proper requisites for a safe foundation to work upon. I find that the apples which keep the best and look the freshest is the Wine, Sap and Spitzenberg, which form the bulk of those now sent below. It would almost tempt an Adam to partake of the fruit when exposed in the boxes. Surely the fruit is not interdicted in our day, if it was forbidden in Eden's flowery bowers. J. T.

Mount Pleasant, Feb. 9th, 1875.

Not of the "Barley Scratchers."

EDITORS PRESS:—If any of those whom Mr. Olden designates "Barley Scratchers" were to visit the farm of my next neighbors, Litts & Sons, they, the "Barley Scratchers," might learn something that would benefit them in the future. Messrs. Litts, this year have 800 acres under wheat and 200 under barley. This is not a big farm for Stanislaus county, because it pays. Yes, it pays, because it is managed in a farmer-like manner. Litts, Sen., directs everything. The land is plowed, not scratched, but thoroughly cultivated, and yields a crop every year. Mr. Litts has three sons, young men grown. Each one is assigned his work, and everything goes like clock work, and there is a place for everything and everything in its place. Economy and thrift are the golden rules on this farm. Nothing is wasted or neglected. The plow is not left standing in the last furrow to remain there till the next autumn rains fall. Neither is the header exposed to all the changes of the atmosphere, as is the case with many of the farmers of this county and then, when needed, has to go to the machine shop to cost a hundred or two dollars, for repairs before it is fit for use. Mary Mountain chats "Farm House Chat," and tells us, through the RURAL, how to make Graham bread, etc. I wish to tell our farmers something else, and that is to take more care for the odds and ends than they do. Don't leave your sacks scattered all over the field to rot there after you have sown the seed from them. When your wagons or any of your machinery, becomes too old for use on the farm, don't throw it away. There is a market for old iron and old sacks too. Waste nothing and you will not be so hard up for a dollar or two at the end of the year to pay for the RURAL PRESS, and thereby furnish yourselves and your wives and children with much valuable information and many hours of instruction and amusement. I am not in the habit of puffing and I don't mean to be, but for their own sakes I do wish that every farmer in California would take the

"Rural Press" and Read It.

But to return to the Litts farm. Almost everything that should be on a farm is there. Blacksmith shop, carpenter shop, and mill to grind feed for stock. William Litts, the oldest son, is one of those natural mechanics we chance to

see, now and then, in the course of a life time. He does the carpenter and blacksmith work, and does it well, he has an eye for "the beautiful" and is a good Granger.

But I must close this letter with one or two more remarks. The early sown grain looks splendid. Weather is fine, and the farmers are cheerful and look happy. W. T. EVANS.
Dry Creek, Stanislaus Co., Feb. 10, 1875.

School Books and School Yards.

EDITORS PRESS:—The change in school books has been the chief topic of conversation among the heads of families. The general opinion in regard to the Pacific Coast Readers is that they surely cannot be poorer than the series now in use. Unless Cornell's Geographies have been considerably revised, their adoption is a retrograde movement. The writer remembers that twelve years ago these geographies were used in the public schools of an adjoining State. The change in penmanship is perhaps of less importance so long as the copies are good. There is but little difference between the various systems, and children generally scrawl considerably over their copies.

The people generally are becoming vexed with such repeated changes in text books, and the consequent expense that is necessitated by the requirements of the law. The extreme course of opposition advocated by some of the leading newspapers, we cannot think right. Though the expense may fall heavily on many a milie, yet that is not to be considered so much as the improvement of the scholars. If parents felt confident that the new books would benefit their children, there would not be such bitter opposition. After having been so badly imposed on by McGuffey's "antiquated rubbish," the people are very distrustful of the State Board of Education.

While speaking of schools, let us ask whether it would not be a good idea to have a certain per cent. of the School Fund expended in ornamenting school yards. As a general rule, the school house is set in the most desolate part of the district. Let a few dollars be expended in such trees as the trustees may select, and a few more dollars be paid for their culture. In the course of a few years the change would be almost as great as "to cause the desert to bloom." It is often urged that boys have strenuous objections to having trees grown near the school grounds, but if the "fear of the rod" will keep them in order, we shall have better managed schools.

NETTIE.

West Side of San Joaquin.

EDITORS PRESS:—Unfortunately we have had rain on the west side of the San Joaquin, and for the present an abundance, but without more the crops would be very light. It may seem strange that a farmer should say a good rain was an unfortunate occurrence. In one sense of the word it is a great blessing to us. In another sense it is not. For if this had proven a dry year the farmers would have taken hold of the canal project in such a way that in a year or two, at farthest, it would have been an established fact. But now the majority of them are entirely apathetic in regard to a canal. At our Grange meeting, just before the rain, held on the 9th of January, the farmers were going to have a canal. Hold open Grange to get a canal; and do any and everything for a canal. Now, with the exception of a few, a canal is scarcely thought of. They seem to think that because there has been a good rain that in all time to come there will be plenty. Entirely ignoring the fact that good seasons are the exception, and dry ones the rule here.

E. H. ROBINSON, Sec'y Oristimba.

THE HORSE.

Old Ceilum Again.

[Written for the RURAL PRESS.]

"Good morning, neighbor Smith." "What, you out with hatchet and nails, too, this Sunday morning?" "Yes; I thought from the sound of things that you had turned old Ceilum out last night, and that he was settling up some of his old grudges across the fence." "I suppose that was just what was up."

"Well, you see, old Ceilum is getting somehow out of fix, and out of sorts generally, and I thought to turn him out awhile; 'twould do him good. Guess you had him just about wore out anyhow, before you sold him; didn't you? If that is the way your thoroughbred turns out, I guess I have got enough of them."

"Yes, Mr. Jones, so I think. Now, come down here in the pasture, and look at this pair of oxen, and when Monday comes (cause you know I always talk Sunday, then do the trading Monday), I will give you this pair of cattle for old Ceilum, back again. I'll tell you why; Ceilum will never you any good; you

need cattle. I heard of how you and Ceilum got along the other day, working on the road. Such beating and slambanging, on a horse like Ceilum!" "Well, he balked outright with the empty road scraper, and I would put a head on Gen. Grant's horse if he can't pull an empty scraper."

"Just hold on, I'll tell you all about it; and I wasn't there, nor did any one tell me how the fuss began; you put old Ceilum to something that he couldn't do, then abused him because he wasn't an ox. How many plows and tugs or something else did you break before Ceilum quit? You needn't to grin and stick your thumb-nail through your coat pocket. I tell you sir, old Ceilum is of the old Kentucky tiger whips, and there is too much blood there for any nonsense. Cattle is what you need. They won't fret if you hitch them to a plow and jam it into a hard road that they can't pull. They won't come in from town on a tight rein, all of a foam of sweat, to be turned into the pond to cool off in the limbs first, much less by drink, either of which is enough to kill you or me; and what will give us a cold or rheumatism, will effect a horse."

"Hold on, Smith; don't get on one of your horse tantrums, now, for I ain't a half an audience. Moreover, I don't swallow the half of your logic, anyhow. I know a man is sometimes a boss, but a boss ain't a man. No, not by a long shot!"

"He ain't! Well just put your fingers on one animal other than the horse, in all God's creation, that have all the glands, both secretive and excretive, like unto man. Does an ox sweat like a man? Does a dog? A dog can be thrown into ice water, when he is given out from heat and exhaustion of a chase, and it don't affect him. All of a dog's sweating is done by the glands of the mouth. But I tell you, sir, you, Mr. I, nor old Ceilum, have any business to be wading in water, when we are all perspiring; especially after doing a day's work, when the nervous force of the system is low."

"If that pond is so bad on a horse, why did it not kill up my other horses? I always let them go in the pond whenever they pleased."

"Your other horses! You never had a horse before I sold you old Ceilum."

"What do you call Bill Button and Pot-books?"

"I call them plugs. They are low bred, thick skinned, thick haired things; can't get enough out of them to render the system susceptible of cold. Another way I will answer you. Why don't the lower grade of the human kind take cold? Why can't you lay round on the cold, wet ground like a Digger; or an Esquimaux. The thing is regulated about right. Wherever you see a fine horse, he has fine care. If you treat a high-blooded horse as you would a plug, it won't be long that you will have a fine horse. If you have lugging, slow, heavy work, get an animal of a low grade for it; an ox, a mule, or a low grade of horse. Take a Suffolk puncher, or a London dray horse, and they will pull a plow on a hard road, or dig with a dump scraper. But a tiger whip won't be apt to do a mule's lugging, unless you deal with his melle, just as carefully as you would chop into a white oak knot, with a high-tempered axe. No, sir, Billy Jones; I never swindled you a cent, when I sold you old Ceilum for \$250. But you did swindle yourself in that bargain, terribly, and I thought so at the time. Just you get some oxen, or else learn a little more about a horse, and my word for it, that's what's the matter with Billy Jones."

GEO. K. MILLER.

Long-Legged Horses.

For most every-day purposes short-legged horses are in general preferred, because in themselves they indicate superior strength, and because, by nature, they are associated with depth of chest and carcass, and other signs of stamina and durability; but the long leg possesses advantages in stride and leverage, and therefore, where speed is required, becomes a desirable formation. The length of limb must depend very much on the purpose the animal is destined for; a long leg would be as ill adapted for a cart-horse as a short one would be for a racer. To get over the ground length becomes absolutely necessary in the propelling parts of the machine, and these are the loins and the limbs. Occasionally we meet with horses with long limbs and short bodies; but such are rare and undesirable conformations—the limbs doing too much for the body, or rather, the latter restricting them in their action.

People in general make objection to horses with undue length of limb; such a horse has "too much daylight underneath him to be good for anything," is a common expression enough in these cases; and, *prima facie*—and in nine cases, perhaps, out of ten—these people are correct in their disapprobation. But, every now and then comes a horse before us with all this apparent sub-corporeal "daylight," and yet with extraordinary power in his long limbs, with circularity in his chest though it be not deep, and with the known character of being "a good feeder after work;" and when such a horse does present himself, we may, should he possess breeding, regard him, notwithstanding his long legs and light body, as an animal of a rare and valuable description. His legs having but little to carry, are therefore likely to "wear well," and he is likely to prove a fleet horse, and withal a good-winded horse—one that is most likely to turn out a most valuable acquisition. One ought not hastily to reject a horse with long limbs and their ordinary accompaniment, a light carcass.—*Prairie Farmer.*

POULTRY YARD.

Profits of Poultry Keeping.

The *Poultry Organ* in an article on the "Profits of Poultry Keeping" refers to the report of the Commissioner of Agriculture which gives the details and results of Mr. Warren Leland's 18 acre poultry farm, from which he marketed at least 3,000 chickens each Spring. Mr. Leland says, "the great success in poultry farming is keeping near the conditions of nature,—they must have space and cleanliness, and cannot do well if confined in cramped and offensive quarters." With space and cleanliness, he says, "I cannot understand why the number need be limited." To illustrate the profits, we append some further extracts of tables reported in 1870 to the Commissioner of Agriculture. The conditions of successful breeding will vary of course with the amount of care, and different breeds kept, the location and attention bestowed, and proximity to markets. We condense some of the records, demonstrating the utility of poultry keeping, as given by the *Organ*. Mr. Nelson Ritter, of Syracuse, N. Y., found his profits on 56 hens, for three months in Winter, to be \$40.85; the hens were part Brahmas. Mrs. E. A. Lawrence, of Brooklyn made an average profit of \$2.25 per fowl.

Another reports a profit of \$39.96 on each \$25 invested, during the first 6 months. Mr. Palmer, of New London, Connecticut, in the same report, who has made a business of poultry keeping for many years, commenced and closed the year with one hundred and twenty fowls, and produced and sold his eggs weekly; averaging total sales of eggs for the year 15,114; sold, \$361.80; feed same time, \$200; clear profit \$161.80; profit \$1.35 from each fowl. His stock consisted of Brahmas, White Leghorns and cross breeds. Another gentleman from Rochester kept an accurate account for 5 years. Average profit per year, \$2.68 on each fowl. Varieties, White Leghorn, Spanish and mixed. In cases recorded the eggs were sold at about one half of California prices, while wheat was dearer and corn cheaper.

The San Francisco *Scientific Press* of December 24th, 1870, states that an industrious laborer took up some Government land near Marysville, California, built a cabin, and purchased chickens and turkeys of the value of \$100 to start with; his fowls nearly picked up their living running at large, and at the end of eighteen months (covering the second spring and summer of his occupation) he had sold poultry and eggs to the amount of \$1,500 above the small cost of keeping—and had on hand stock five times the value and amount of the original.

In Flint's "Agriculture of Massachusetts" for 1869, several accounts with poultry are given by citizens of that state which may be briefly summarized: One gentleman kept 8 Braham and Hamburg hens; 1 year's yield, eggs and chicks, \$42.90; cost to feed, \$24; profit, \$18.90, or \$2.10 per fowl. Another, 14 hens for a year, mostly white Leghorns, crossed on native breed, yielded \$62.75, a profit of \$2.17 per hen. Another reports 24 hens, mostly White Leghorns and crosses on Brahmas, \$83.92 net profits, or an average of \$3.70 each.

Without multiplying in this number their statistics, let us briefly call the attention of our agriculturists to these reports, and ask them if they can show for the investment a better credit side (to any stock kept) on their farm ledger. Every farmer has a waste yard, back of the barn, down the lane, up by the brush patch, on the hill-side, over in the stony corner, or down by the swale in the cow yard, where a cheap and temporary hen-yard, duck pond or turkey clutch might be extemporized, and a piece of worthless and unproductive ground now yielding no profit, converted in a poultry yard, and stocked with 50, 100 or more hens, Leghorn, Braham and others; being careful once in two years to introduce a pure strain to renew blood, could realize a greater profit than from any other class of stock requiring as little capital invested.

Death Among the Pets.

EDITORS PRESS:—I regret being compelled to write you bad news—that is, for me. My last communication was on the question of rabbits. I shall write now only in memory of them; for alas, they have gone. Well, my last account was that they were dying; and they did die to the last one, mother and all. But I think I have solved the mystery of their death; it was not the food, but the place I had them in was too wet. I took them all in my kitchen, petted and cared for them like children, but they were too far gone; each died in convulsions, just as I have seen little children, with frothing at the mouth. Some had three spasms, others only one before they died. One little fellow had a fit every morning for three days, and in the afternoon would be as lively as if nothing ailed him. It was really amusing to see them play with my dog and cat, crawl on top of them and go to sleep. I must say that I became very much attached to them. I am going to try it again, and will let you know how I succeed. This time I think I can train them to perform little acts; if I succeed I will bring one to the city.

PAULINE CUSHMAN.

Boulder Creek, Jan. 27th, 1875.

THE VINEYARD.

Review of Grape Culture Correspondence.

EDITORS PRESS:—In your issue of Jan. 16th is an article on grape culture, by P. S. Russell, commenting on a letter on grape culture written by W. S. Sanders, Dec. 16th. He says Mr. Sanders seems to think that in planting cuttings, the more vine is buried in the ground, the more roots it will produce; I agree with Mr. Sanders. If the vine is laid horizontally and not deep, about six inches is deep enough. A cutting wants warmth and moisture. Again, Mr. Russell says, "a cutting is not a rooted vine" (we all know it up here), and one planted twelve inches deep perpendicular, will produce as many roots, as ten feet of vine buried in a trench; simply because the roots and branches must grow in the same proportion. Now, Mr. Editor, Mr. Russell, when writing the above forgot his subject, and has gone back on trees and orchard planting. Any person who has set cuttings to root knows that many will take root and not start a bud; many also will have roots from the top to the bottom and only send out one branch. Where is the proportion in such cases?

Mr. Russell says, "A cutting of grape or other wood will only send roots from bottom end of cutting, and will not root from the buds." In that proposition he is also wrong, for any person who understands the growing of grapes, in preparing cuttings, will cut the bottom end off directly below the bud; the cut being smooth, the knife is better than shears; all the wood left below the bud is apt to decay. If roots don't start from the bud joint, and only from end of cutting, why have cuttings 20 inches long and put them down in the cold ground 15 inches, when common sense would tell you they would root quicker and stronger, nearer the surface in warm rich soil; you say cuttings of wood will not send out roots only from bottom? Did you ever set a cutting of wood? If so, did you examine it after it had rooted? If not, I would ask you to try an experiment, and give us the result. I have rooted cottonwoods set for posts as large as five inches in diameter, and the roots were from top. Bottom willow will send shoots out every few inches when laid down and covered a few inches with soil. Mulberry will do the same; and right here I wish to prove your theory false by showing that when silk worm culture was at its height, there was a scarcity of mulberry leaves and trees, and propagation was done by planting the bud in sandy loam to form roots to start groves of trees for feed, none would have more than two inches of wood. The bud is the natural place for the roots to start in grapes and other cuttings, although Mr. Russell has failed to see it. I have planted cuttings perpendicular by digging a hole and also by making a hole with an iron rod and running the cutting down, closing the hole with rod. This plan may succeed on rich, moist lands, but will not do on clay or cold soil. I had good success in laying them horizontally and tramping the soil firmly on the cutting, filling in with loose earth and leaving one or two buds above the ground.

Staking vines is a useless expense. Vines should be self-supporting and never more than two feet high, unless where they are subject to mildew. Low vines are better, as the wind in April and May will not break them, and the summer sun will not burn the grapes.

Pruning the Vine.

Grape growers differ in regard to pruning, and the proper time to prune. I prune when I am ready, anytime from December to March. I have failed to see any difference so far. I leave from three to five buds, and from four to twelve spurs, according to age of vine, and quality of land. Rich land will mature more grapes and cannot be hurt. I think leaving long spurs and a less number will increase the yield of grapes. Last season I left two rows of black July unpruned, expecting to graft them; they were literally covered with grapes, of full size—the best crop they ever bore.

I summer prune about the middle of May; cut them close and break off suckers. About June 1st, I summer prune again. The soil is rich, and the vines grow thrifty. I keep the plow and cultivator in until the vines shut me out. Mr. Russell's mode of leaving two buds on one half the branches for next season's fruit-wood is not practised here; and the tops of the oldest vines have not yet come together. We think we have good vineyards here, and good land to grow them, but never were so fortunate as to make them yield six pounds of grapes to the vine at two years old from cuttings. Our grape growers in this vicinity have received the highest premiums at our State fairs for the last three years, for fine display of grapes, and I think would carry it for actual yield per acre, if such a premium was offered. I do not irrigate in the summer, but at this present time my vineyard is completely soaked, having three feet of that clear, crystal-like water of the American river over its surface for the last twenty-four hours. It may injure the vines; I know it has the squirrels and gophers. Excuse me for troubling you with so much matter, but I want new beginners to hear both sides, that they may be able to judge correctly what to do. Experience is an expensive teacher. I am one of her scholars, and have paid dear to learn a few things which I give for nothing. I would say something on how to plant a vineyard, but this is already too long. Give us in your next paper, what variety of plums are best for market and drying.

P. H. M.

Brighton, Jan. 20th, 1875.

Industrial Items.

SHIP BUILDING.—An 80 ton schooner is now on the ways at North Beach in this city; she is being built by Mr. Geo. Barchert. Messrs. Boole & Webster are building a tug boat for Capt. Griffith at the yard. A 100-ton schooner is also next being commenced by Mr. Bell. The work on the new schooner of 150 tons at Vallejo, has been delayed by the lack of the proper timber for construction. Reis Bros. of Santa Cruz, have just laid the keels of a fine Screw propeller of 120 feet keel by 60 ft. beam. The keels for two new vessels are being got out in the woods back of Uiter City, Oregon at which locality they will be built.

PAPER BARRELS.—The invention of making paper barrels was patented a year or two ago, and two factories are working, one at Winona, Wisconsin, and one at Decorah, Iowa, the latter turning out 1,000 barrels daily. Their strength is said to be greater by four times than wooden barrels, only half the weight, and costing 20 per cent. less. The machinery for a paper barrel factory, to be established in this city, has already been ordered, and paper barrels will soon make their appearance in this market.

NEW INDUSTRIES IN CHICO.—The Butte *Record* says: Chico is to have a foundry and machine shop, the land for that purpose having already been secured. Arrangements have also been made for locating a blind factory at that place, under the direction of Mr. Jason Springer, of this city. The factory will be in operation in about one month. The Chico gas company are also erecting a new building for their works.

EXHIBITION OF MARINE INDUSTRIES.—It is proposed to hold, next year, in Paris, a general exhibition of all kinds of machinery, apparatus, implements, and other articles employed on board ship, in fisheries, and all other trades pursued at sea, or on fresh waters, to which is to be added a collection of the principal articles of French exports.

AN AMERICAN GUN IN ENGLAND.—The Macomber gun (an American invention) was recently tested at Portsmouth, England, and a conical shot, weighing three pounds, discharged at the initial velocity of 2000 feet a second, a higher velocity than any gun yet achieved. The range of this weapon is claimed to be nine miles.

A NEW INDUSTRY is about to be opened up in Virginia—the manufacture of eliseric, the active principle of madder. Eliseric, as heretofore obtained, has cost \$3.50 per pound; but by the new process it may be made for \$1.25. The manufacture is already in successful progress in Germany.

MINERAL OIL IN JAPAN.—Mineral oils are found in abundance in Japan and a commission of scientific Japanese is now in Philadelphia to examine into the principles and economy of this industry as developed in that State.

UTILIZING WAVE-POWER.—Another effort is about to be made in this city to utilize wave-power. It is said that some of our experienced engineers have pronounced the proposition feasible.

BUILD IT.—The Santa Barbara people want a railroad along the coast to connect with this city. That is what we all want. We hope some of the money from the new bonanza will be employed to initiate this enterprise.

PEAT MANUFACTORY.—There is to be established in San Joaquin county, at a place known as "Head Reach," on the San Joaquin river, a factory for the manufacture of peat. The quality of the peat is said to be good.

THE NEW GRIST MILL near Corvallis, built by Hurst, Korthauer & Gray, is in full blast, and is found to be an enterprise which that section much needed.

NEW LIME KILNS.—Reis Bros., of Santa Cruz, are now constructing four large lime kilns on the Vecinte ranch. They are also building a propeller to transport their lime to this city.

NEW SODA FACTORY.—William Pearson, of Carson, who has been manufacturing soda for some years, proposes to establish a soda factory in Reno.

CARRIAGE FACTORY AT PETALUMA.—D. C. W. Putnam is fitting up a first class carriage and wagon manufactory in Petaluma.

THE BORAX WORKS of Griffin & Wyman near Fish lake turned out 34 tons of borax in the month of November.

STRAW-BURNING MACHINERY.—A large number of straw-burning threshing machines, are being manufactured at Vallejo.

NEW SAW MILL.—Captain Staples is erecting a saw-mill at the mouth of Elk creek, Del Norte county.

A SHOE FACTORY is soon to be put in operation at Benicia.

OIL WELL.—One of the oil-wells at San Fernando is now yielding forty barrels of oil per day.

A STEAM LAUNDRY is to be started at Santa Rosa shortly, employing only white labor.

FLOW FACTORY.—Q. A. Adams will soon start a plov factory at Salem, Oregon.

USEFUL INFORMATION.

About Bricks.

Few materials for building are in more constant use than bricks. Even where stone is the principal article used in the composition of a building, bricks are wanted for linings, flues, furnaces, ovens, and a number of other purposes. The properties of bricks should vary according to the purposes to which they are to be applied. A brick intended for building should be so solid that it may be neatly cut, and baked at a temperature sufficiently high to prevent it being disintegrated by atmospheric influences. A good brick for an ordinary building will support a considerable weight without being crushed. It ought not to crumble in water nor to absorb too great a quantity of it. This question is tested by weighing the brick before and after immersion in water. Earths are often found which, without preparation, are fit for the manufacture of bricks for building purposes. Indeed, the common yellow vegetable earth will generally answer. In the construction of furnaces, the bricks to be used ought to be such as will longest resist the ashes of the combustible. Fire-bricks are made with plastic clay, containing neither gypsum, lime, or oxide of iron, which color bricks red and render them fusible. The clay is first washed to free it from the foreign substances which it contains. It is then reduced with cement of burnt clay, made expressly for the purpose, and powdered. Even the purest sand, mixed with clay, would not make infusible bricks. Bricks are formed either with the hand or by manufacturing appliances. Two men, with the hand, can make from six to seven thousand bricks per day. They are burnt either with turf, coal, or wood, according to convenience, the latter being generally used in this country. The kilns are built almost entirely with the bricks intended to be burnt, the base of the kiln being the only part made of old bricks. A kiln contains about four hundred thousand bricks, and it requires about five days to burn them. The Flemish process, by which the bricks are burnt with coal, is the most economical. The manufacture of bricks in St. Louis has assumed mammoth proportions, and are becoming famous for their surpassing excellence, many persons preferring a front of them to one of stone. Milwaukee has a clay which gives a peculiar light yellowish tint to the bricks made there, which, when judiciously contrasted with trimmings of dark colors gives a very pleasing effect.—*Builders' Journal*.

WATER, when stored in tanks or other closed vessels, seems to undergo a sort of fining process, by which many of its impurities are thrown down as a sediment upon the bottom of the vessel. Sailors assert that water clears itself by working after the manner of wines or liquors. Though this is not strictly true, yet it is a fact that most of the impurities held mechanically suspended are thrown down and the water in time becomes fit for use.

If we can store water, exclude dust and give some time for settling, the water is pretty sure to be improved in quality. If the cistern is open there are two evils to be apprehended. Dust will find its way into the water and foul gases accumulate in the cistern. These will be absorbed by the water, and so render it unfit for both drinking and cooking. This absorption of gas by water is of much more importance than most people are aware, a very large quantity being taken up, and as the water does this with rapidity, we should not allow it to have access to foul air.

INTERESTING AND PRETTY PARLOR EXPERIMENT.—Apply a common needle to a magnet until charged, then rub dry, polish carefully between the thumb and forefinger, lay it into a tumblerful of water; if well done it will float; if it sinks try again; you will seldom fail.

No sooner is the needle afloat untrammelled when it will wheel around and point to the north pole as accurately as any mariner's compass. The tumbler can be turned around carefully, but the needle will keep its point. The common horseshoe magnet is a very interesting thing to have about a house, and can be bought for a trifle. Any common pocketknife or scissors can be charged with it, so as to draw up any small piece of iron or steel, and will retain the influence a long time.

This magnetism is a powerful element, but acts silently and unseen; one which we know the effects of, and yet know but little of its source.

AN OLD GAS WELL.—There is a gas well on Wolfe creek, about one mile from the turnpike leading from Mercer to Butler county, which was dug in 1838. This well was dug for salt, and abandoned as a salt well in consequence of a heavy flow of gas. The parties who then owned it came to Pittsburgh and had a large cast-iron cap made to cover the well, with a pipe and valve in one side. By some means they closed the valve and the salt pan and cap burst, and the works with all the apparatus was blown to pieces. Recently, Mr. Alfred Carnos, of New Castle, has leased the well, and we are informed that he is contemplating the erection of a fine flouring mill upon the premises to be run entirely with gas. It is said that gas has been flowing from this well ever since it was discovered. This information may be of use to those contemplating the utilization of natural gas permanently for manufacturing purposes.

PATRONS OF HUSBANDRY.

STATE GRANGE HEADQUARTERS.

I. G. GARDNER, State Agent; Executive Committee Rooms; Fruit Growers' Associations, and Farmers' Mutual Life Insurance Company, all at No. 6 Lidesdorf street. W. H. BAXTER, State Secretary, at Grangers' Bank, 415 California street, S. F.

Grange Clubs for the Rural.

The Secretary (or some other Patron) is invited to act as club agent for the PACIFIC RURAL PRESS in every Grange. Circular and sample copies sent free. Five or more names will constitute a club, at the rate of \$3 a year. No new subscriptions will be taken without payment in advance. We will pay the postage after Jan. 1st, 1875. All club subscriptions in Granges should end on the last day of the month. Old subscribers may join the club by paying the Secretary up to club dates. Every Patron farmer should read a reliable agricultural paper. We need the support of all on this coast. Help the Secretary (or club agent) to make up a large list in your neighborhood. Don't delay.

NOTICE TO STOCKHOLDERS OF THE GRANGERS' BANK OF CALIFORNIA.

At the meeting of the Directors, on Feb. 9th, the following resolution was passed:

That all assessments due and not paid on Feb. 1st, 1875, shall be charged interest at one per cent. per month from that date till paid. It will be to the interest of all delinquents to give this notice prompt attention.

Also the following resolution was passed:

That on all stock taken on and after the first day of April, 1875, a premium of one per cent. per month will be placed, reckoning from Aug. 1st, 1874, on all assessments payable up to the time the stock is taken.

F. A. CRESSEY, Sec'y.

San Francisco, Cal., Feb. 9th, 1875.

Secretaries will be supplied with a printed list of subscribers for this paper upon sending a list of post offices within the range of their Grange. Also with blank reports, etc., for clubs.

The Patrons in Convention.

A Grangers' Business Association Organized.

Pursuant to a call, issued in the form of a circular, a general meeting of Grangers assembled at Corinthian Hall, in this city, on Monday last, to take into consideration the propriety of forming a General Grangers' Business Association for this State. The attendance was very large, delegates being present from almost every agricultural county in the State. R. C. Haile was chosen President, and W. H. Baxter, Secretary. The project was freely and fully discussed in all its bearings during Monday afternoon and Tuesday until noon, when the Convention, by vote, carried to an almost unanimous conclusion that such an organization was an indispensable requisite to the farmers of this State.

The Articles of Incorporation.

As adopted, read as follows:—"Know all men by these presents, that we, the undersigned, have this day associated ourselves together for the purpose of incorporating under the laws of the State of California a corporation to be known by the corporate name of the Grangers' Business Association of California. And we hereby certify that the purposes for which this corporation is formed are as factor and broker, and not otherwise, to deal in all kinds of agricultural produce, live stock, wool, agricultural implements and general merchandises.

Also, to ship grain and other merchandise to and from foreign and domestic ports as factor and broker, and not otherwise.

Also, to charter and load vessels to and from foreign and domestic ports as factor and broker, but not otherwise.

That its principal place of business shall be in the city and county of San Francisco, State of California.

That the time of its existence shall be fifty (50) years from and after the date of its incorporation.

That the number of its Directors and Trustees shall be eleven, and that the names and residences of those who shall serve until the election of such officers and their qualification, are: J. M. Hamilton, Lake county; J. C. Merrifield, Solano county; G. W. Colby, Butte county; A. B. Nally, Sonoma county; J. M. Thompson, Napa county; A. D. Logan, Colusa county; H. M. Leonard, Santa Clara county; Wm. McPherson Hill, Sonoma county; O. Hubbell, Marin county; G. P. Kellogg, Monterey county; D. Inman, Alameda county.

That the capital stock of this corporation shall be one million (\$1,000,000) dollars in gold coin of the United States, divided into 40,000 shares of the par value of \$25 each.

After the formal adoption of this document, it was witnessed before James L. King, a notary public, and immediately filed with the Clerk of the County Court.

Nearly, if not quite every member present, was either a subscriber to the stock already, or became such after the formal adoption of the articles of incorporation.

Over two-thirds of the subscribers being present, and having waived the right to require notice of meeting, the stockholders met at 10 A. M., Wednesday, and considered the proposed by-laws. Adjourned at 12:10.

It will be observed from the tenor of the above articles of incorporation, and from the by-laws adopted, but not published in these columns, that this Association is organized for

the purpose of acting as factor and broker, simply, and that its business is to be confined exclusively to articles appropriate or fitting to agricultural products. The Association does not propose to embark in general merchandise, or to in any way interfere with ordinary mercantile operations of the day.

Afternoon Session.

In accordance with previous announcement, the grain-growers held a meeting at 1 P. M., the hall being full. At about 2 P. M., the grain-growers meeting adjourned for about 15 minutes during which time the stockholders in the Business Organization went into session and received the Special Committee report on by-laws and adjourned to meet at 7 P. M., in the District Court room. The grain-growers then resumed their session at which a full discussion was entered into of the matter in reference to the late wheat shipments through E. E. Morgan's Sons. The action and connection of the Executive Committee therewith was also fully explained. That matter having been disposed of, the subject of relief for the grain sufferers was introduced by Bro. Cressey, whose remarks were received with enthusiasm. Although himself a victim he closed by subscribing \$100 to the relief fund, and was followed by quite a number of other subscriptions to a like amount, and some to the amount of \$150. Over \$3,000 was subscribed in the few minutes that remained previous to the necessary hour of adjournment to make way for the meeting of another body in the same hall. A large amount of cash on the spot accompanied the subscriptions. While this subject was under discussion Mrs. Lucretia Wills, of Point of Timber Grange, Contra Costa county, made some very touching, eloquent and effective remarks. Just previous to adjournment a resolution was offered by J. V. Webster, of Brooklyn, and passed, regarding the collection of further sums for this fund.

It is understood that large sums have already been collected by several Granges, in some cases largely exceeding the sum called for by the above resolution. There is now every reason to believe that some substantial and adequate relief in this direction will soon be raised and divided among the most needy of the sufferers.

Evening Session.

The stockholders of the Business Association met according to adjournment, to complete the organization by choice of officers, G. W. Colby presiding. We go to press too soon to give the result this week.

Bros. Chapman and Babcock officiated as assistant Secretaries during the session, and Bro. Gardner as door keeper. The sessions were secret, but not under the working rules of the Order.

We have rarely if ever met in convention with a firmer or more dignified body than that which assembled, as above, the past week. The utmost harmony and good feeling prevailed throughout, and no one who was present could have failed to be favorably impressed with the high moral and intellectual character of the assemblage. This, and the previous meetings which have been held here and elsewhere in the State, have afforded the most abundant evidence of the fitness and ability of the farmers of California to transact their own business—whether on the farm or in the forum. The amount of forensic ability displayed in these meetings, and especially in this last one, was most remarkable, and would be creditable to the popular branch of any State Legislature in the Union.

These frequent State meetings of farmers, held for the purpose of consultation and discussion in regard to their peculiar interests, are doing an immense amount of good in many ways. Our farmers are becoming better acquainted with one another; they are learning more and more to rely upon themselves, and they are demonstrating their ability to take care of themselves; the different wants of the various sections of the State are becoming better known to the great mass of agriculturists; they are working together for the common good, and are daily becoming more thoroughly impressed with the great and numerous advantages resulting from a firm and close bond of union. Were it not for the fraternal union in which the farmers of this State are so closely bound, the results of the past week would have been an impossibility. We look upon the organization of the Grangers' Business Association, now so happily consummated, as one of the most important achievements ever accomplished by the farmers of this or any other State. Belonging altogether to and made up exclusively of farmers, to do their business, it will reduce the cost of hauling and selling their products to its minimum; while the small amount of profits which may accrue from doing such business, will return again to their own pockets, in the way of dividends upon the stock of the Association.

A fair representation of Sisters from several Granges cheered the Convention with their presence at each meeting.

COLORADO STATE GRANGE.—The State Grange of Colorado recently held its second annual session. Among the proceedings was a memorial praying Congress to perfect the title to railroad lands, so that they may become subject to taxation. Granting this reasonable request would right a great wrong.

REMOVAL OF THE GRANGERS' DAIRY, PRODUCE AND COMMISSION HOUSE.—The business of this establishment has been removed from Nos. 412 and 414 Sansome street, to No. 414 Clay street.

Grangers' Fruit Association.

A. W. Thomson, Secretary of this Association furnishes us with the following brief minutes of its recent meeting. The Association met at 2 P. M. February 16th, upon call of the President, to consider various propositions as to incorporation for business purposes. President Hill in the chair, Secretary Thomson in attendance. The minutes of the previous meeting were read and approved.

The President opened the meeting with an appropriate address, stating the necessity for action in the premises, and explaining the general features and advantages of the plans proposed.

On motion of Bro. Thomson, amended by Bro. Llewellyn, a resolution was moved and carried to the effect that it is the sense of the meeting that we prefer to join in the efforts of the Patrons of Husbandry at large to form a general association for the transaction of business to all other plans proposed, and that this Association will postpone consideration of all plans for separate incorporation of the Fruit Growers' until such time as it shall appear impracticable to form a general incorporation.

After the adoption of the resolution, it appearing possible that some members had voted under a misapprehension of the effect of the resolution, on motion of Bro. Goss, a reconsideration of the resolution was had, and on full discussion the resolution was unanimously affirmed.

On motion, meeting adjourned, to meet at same place at 7 o'clock P. M.

The meeting met pursuant to adjournment, and the minutes of previous meeting were read and approved.

The resolution adopted at previous meeting came up for discussion, and on motion it was resolved, as the sense of this meeting, that it is our duty to take all the stock possible in the Grangers' Business Association, and do all in our power to aid in the formation of that incorporation, and bring to it as much business as it is in our power to do. Thereupon discussion upon various topics incident to packing and transportation of fruit ensued, and occupied the attention of the meeting until 11 o'clock P. M. On motion, adjourned, subject to the call of the President.

As usual, a large attendance was had at the meeting, which was also graced by the presence of ladies. Entire unanimity prevailed, and the assistance to be expected from this branch of the Order to the general incorporation is proportionate to the value and importance to the Order of this branch of industry.

Ferndale Grange on Text-Books.

We have received from Bro. James Smith, of Ferndale Grange, a communication informing us of the action of this Grange on the school-book question. There is an air of candor and good sense pervading the brief letter of our brother, but the action of the Board of Education is condemned in terms a little more severe than the aspect of the subject will warrant. We give below the close of this stirring letter, after the school-book question had been disposed of: "This Grange has 160 members, and would make a noise in the world only we are all poor hard working people, and have not much time to write or talk. So I hope you will excuse us for not blowing our horn before."

Yours fraternally, Jas. Smith, W. L.

Election of Officers.

CAHOTO GRANGE, MENDOCINO CO.—J. H. Braden, M.; J. J. Thomas, O.; James Burns, C.; O. R. Bennett, T.; G. N. Grubbs, S.; Wm. Burns, A. S.; H. Clark, Sec'y; B. Wayman, G. K.; Mrs. M. F. Braden, Ceres; Miss S. M. Wilson, Pomona; Miss A. F. Wilson, Flora; Mrs. G. N. Grubbs, L. A. S.

SOUTH SUTTER GRANGE, AMADOR CO.—Thos. Boyd, M.; R. McClellan, O.; Cyrus Briggs, L.; Wm. Roberts, S.; Geo. Boyd, A. S.; R. H. McClellan, C.; Homer Lankey, T.; George R. Richardson, Sec'y; W. W. Monroe, G. K.; Mrs. Boyd, Ceres, Mrs. Mary McClellan, Flora; Mrs. Susan McClellan, Pomona; Mrs. Ann Roberts; L. A. S.

MATTOLE GRANGE, POTROLIA.—Jacob Miner, M.; J. A. Crow, O.; Lucian Wright, L.; J. H. Goff, S.; Clem Shinn, A. S.; Mrs. S. E. Marshall, C.; Thomas Clark, T.; David Simmons, Sec'y; Frank Gauthier, G. K.; Mrs. A. E. Cook, Ceres; Mrs. H. E. Ames, Pomona; Mrs. C. A. Miner, Flora; Mrs. A. A. Bentou, L. A. S.

WOODLAND GRANGE, WOODLAND.—N. Wychoff, M.; A. J. Steiner, O.; C. Nelson, L.; D. P. Diggs, S.; E. Gallup, A. S.; S. P. Pond, C.; D. R. Clanton, T.; D. Schindler, Sec'y; S. Ogburn, G. K.; Miss Ella Jackson, Ceres; Miss Hattie Wychoff, Pomona; Miss Susan M. Harlan, Flora; Mrs. J. E. Diggs, L. A. S.

GRANGERS AND GOPHERS.—The Ventura County Council, of the Patrons of Husbandry, have taken action in the matter of squirrel and gopher extermination. They have resolved to join in combined action on the 1st and 15th of each month, and by the use of dissolved phosphorus and strychnine make war upon these pests. It is now well known that the action of one farmer at a time in this matter merely causes the animals to shift their quarters from one farm to another; but if the attack is simultaneous, and at all points, it becomes in reality a war of extermination.

District Councils.

EDITORS PRESS:—The Los Angeles and San Bernardino District Council met in El Monte on Tuesday, Feb. 9; was formally called to order by the Worthy Overseer, J. Q. A. Stanley, and by request, Bro. J. S. Thompson, of Los Angeles, read a very interesting paper on that subject of all subjects, taxation—after which the Council opened in form, the Worthy Overseer presiding.

The newly elected delegates presented their credentials, were enrolled, and, after some discussion the Council proceeded to organize by electing officers for the ensuing year; election resulting as follows: Master, Edward Evey, Fairview; Worthy Overseer, J. Q. A. Stanley, Los Angeles; Lecturer, J. S. Thompson, Los Angeles; Steward, P. Penfold, El Monte. The other officers were reelected.

Committee on Centennial, through Bro. Porter, report the movement progressing more satisfactorily than the friends of the movement anticipated. Sufficient funds have been raised, without the aid of Congress, to carry to completion the work undertaken by the Commissioners. Congress will probably be asked to appropriate \$400,000, to be distributed in premiums, but for no other purpose. Bro. Porter will, upon application, furnish proper blanks to any person or persons desiring to secure space in the Exposition buildings for the exhibition of any of our products and industries.

A lengthy and somewhat heated discussion followed the presentation of the report of the Committee on Immigration, during which the Centinela and Lompoc land companies came in for their full share of denunciation, and although not censuring the Committee on Immigration, the spirit of the Council was most emphatically against lending either the name or influence of the Patrons of Husbandry to any private speculation whatever, the debate closing with the adoption of the following resolutions:

Resolved, That this Council does not countenance, but expressly disapproves the use of its name, as that of the Patrons of Husbandry, by corporations or individuals, for the promotion of their private interests.

Resolved, 2d, That the above be furnished the Los Angeles Herald, Southern Californian, and Pacific Rural Press for publication.

A resolution was also introduced by Bro. Porter, and adopted, looking to the establishment of a monthly paper by the Patrons of the district.

The following resolution was also presented and unanimously adopted:

Resolved, That it being the legal duty of the State Board of Education to select text-books for the public schools, in our opinion it is not proper to condemn said Board, or any member thereof, in the absence of the slightest proof of dishonest influences, for their selection of any school text-books made by the Board at their last session.

2d, That books made by home authors and home publishers, if equally good and cheap, should be preferred for text-books in our schools.

The following was presented by Bro. Porter:

WHEREAS, The Worthy Lecturer of our State has taken occasion to change an important statement in the Declaration of Purposes issued by the National Grange; therefore, be it respectfully

Resolved, That we as heartily endorse the erased statement as we do that substituted for it. That is, we are as heartily "opposed to exorbitant per cent. profits of producers" as we are to "exorbitant per cent. profits in trade."

The session of the Council at El Monte will long be remembered by the members for the manner in which they were entertained by the good Brothers and Sisters of El Monte, No. 43. Tables were laid in the room under the hall for a hundred and fifty persons, and were filled and refilled without any apparent diminution of the supply of fish, flesh and fowl, and with delicacies in endless varieties. At the close of the session in the evening, the announcement was made that supper awaited all who would partake, and the Council proceeded to work in that mysterious degree in which when the elbow is crooked in salutation the mouth invariably flies open.

A vote of thanks was tendered the Lexington Lodge, F. and A. M., for the use of their hall, and Council closed, to meet in Los Angeles on the second Tuesday in May.

Hon. J. S. Thompson, by request, addressed the Patrons in informal session at 7 1/2 o'clock, and also by request furnished a copy of his paper on taxation for publication.

JOHN F. MARQUIS.

COLORADO GRANGERS ON TEMPERANCE.—The following are among the resolutions:

WHEREAS, Intemperance is the greatest evil of the present day, hustling off thousands of our fellow beings into a drunkard's grave, annually filling the land with the wailings of broken-hearted widows, mothers, and orphan children, supplying our almshouses with most of their inmates, and our prisons with three-fourths of their criminals; and

WHEREAS, The terrible evil is altogether incompatible with every aim and purpose of our most excellent Order, therefore

Resolved, First, that we, as Grangers, will, by every honorable method in our power, discountenance intemperance and exert our influence on all proper occasions, to promote the cause of sobriety.

From the Granges.

South Sutter Grange.

EDITORS PRESS:—As I have never seen anything in your valuable paper about South Sutter Grange, I take the liberty to send you a few items, to let the numerous readers of the Press know that there is such a place as South Sutter. We are located near Pleasant Grove, 18 miles from the capital of the State. Since the last rain our crops are looking finely, and our farmers feel greatly encouraged. Our Grange is prospering finely. On the 30th of January we had our officers installed by Deputy Ohleyer, assisted by Master B. F. Walton, of Yuba City Grange. After the ceremonies were through with, the tables were spread and loaded with the many good things that our worthy sisters had prepared for the occasion. You would have thought we lived in a land of plenty if you could have seen those tables. Enclosed you will find a list of officers installed.

FARMER.

Rustic Grange.

EDITORS PRESS:—Knowing that the Press is always willing to publish the good deeds of our Order, I take pleasure in giving you and your valuable journal and the readers thereof our mite of information. We are small in number, but great in deed. We are about to occupy one of the finest halls in the county, outside of the city of Stockton, to be dedicated on the 4th of March. All of our officers were duly elected, and the last installed last Saturday.

Fraternally yours, H. C. WILLIS, Sec'y.
Lathrop, Feb. 8, 1875.

Mattole Grange.

EDITORS PRESS:—There are several copies of the RURAL taken by our members. I send you a list of officers of Mattole Grange installed on 9th of January by District Deputy H. W. Abrogast. Our Grange meets but once a month since winter set in. We are scattered a good deal among the mountains, and in bad weather cannot get together oftener than once a month.

Our last meeting was on January 16th; will meet again on the third Saturday of this month.

DAVID SIMMONS, Sec'y.

Mattole Grange, No. 201, P. of H.

Benlomond Grange, Santa Cruz.

EDITORS PRESS:—Our Grange on the mountain is flourishing finely. Though few in numbers we are united, and go hand in hand to advance the interest of our order. At our last regular meeting in January the officers for the ensuing year were installed by P. M. Wardwell of the Santa Cruz Grange. Brother Wardwell conferred the fourth degree on three brothers and one sister. We then withdrew to the harvest feast. The sisters of the Grange had prepared a bountiful repast. The weather being pleasant and warm, the tables were spread under the green madronas trees. The sisters deserve great credit for the pains taken and taste displayed in arranging the tables. After an hour's social enjoyment, we returned for the installation. The Worthy Lecturer, John Burns, Sr., gave an able address on the Grange movement, showing the great need for us to stand together in the fight between the Grangers and monopolists; that if we be only faithful and true to each other, our labors shall be crowned with success. We receive the PRESS regularly and give general satisfaction. We miss the spicy little Granger, but we think the change is a good one. Brother Henning has done very honorable by his patrons. We have a club of ten who had subscribed for the Granger. Our time will expire in April, and I have no doubt our patronage will be extended to you.

JOHN BURNS, JR.

Santa Cruz, Feb. 10th, 1875.

Paradise Grange, Nevada.

EDITORS PRESS:—As some of my neighbors are taking your very valuable paper, and our Worthy Lecturer is making up a club of ten among our members, and as I am one of the ten, I take this opportunity to furnish a notice of our Grange to appear in your Grange directory. Paradise Grange, No. 5, was organized Aug. 29th, 1874, by A. J. Hatch, D. D., with 19 members. Officers: B. F. Riley, Master; S. B. P. Pierce, Overseer and C. A. Nichols, Secretary. Our Grange held their annual installation on Jan. 2d, and the following officers were installed for the ensuing year: B. F. Riley, M.; S. B. P. Pierce, O.; Wm. Perkins, Sec'y; Robt. Burge, T., with all the other officers necessary. Our Grange now number 51 members—all good working members. I think we have the best working Grange in the State. We hold regular meetings, one each week and sometimes two call meetings in one week, in order to confer degrees. We have had some delightful harvest feasts, gotten up by our worthy sisters, which were much enjoyed by all. There is a population of about 200 in our valley, and about 15,000 acres of land in cultivation. Our land produces about 30 bushels per acre, of wheat and barley. We have one good flouring mill in the valley, also one at Winnemucca, at the south end of our valley—both owned by Grangers. Our Grange is organizing into a joint stock company for the purpose of building a Grangers' hall and a store house. We have already sold two-thirds of stock, enough to complete the building, and will order the material in a few days. I am confident our Grange will number 100 inside of a year. From this date, then, I think with the help of our sister Grangers in Nevada, our demands will be respected and granted. May God speed the glorious cause throughout our

country; and may our Order be united and work for our common end—the protection of the laborer. Yours fraternally, B. F. RILEY.
Paradise, Nevada, Feb. 10th, 1875.

Cahto Grange.

EDITORS PRESS:—The members of this Grange held a regular meeting yesterday. Members are very jubilant, and much interest and enthusiasm is manifested. At each meeting some subject is laid before the Grange, and a special committee appointed to investigate the matter and report at the next meeting all information obtained. After 40 nights of severe frosts, in which the whole country was linked in ice, south and west winds comeladen with moisture, and the "scene is changed." The fields that had been tinged with yellow, are now green. All kinds of stock are wintering well, and in good condition. Stockmen report no losses. Many farmers are planting grain, declaring this to be the best time to sow. Some weeks ago, the "Press" stated that almond trees were blooming in Los Angeles county. Can we not beat that in this Alpine climate, where "Winter lingering chills the lap of May." We had Kittatiny black berries, displayed green fruit and flowers on New Years day, and rimmed fruits as long as the sun imparted sufficient heat. They are now clothed with green foliage of Autumn's growth. S. H. C. Sec'y.
Cahto, Mendocino county, Feb. 7th 1875.

The National Grange Session.

The reports by telegraph the past week have been very meagre. We hope to have important particulars for our next. We extract the following from a private letter from the Master of the Oregon State Grange:

CHARLESTON, S. C., Feb. 2d, 1875.

DEAR SIR AND BROTHER:—We arrived here this morning at 7:30 o'clock all right, having had a very fair and pleasant trip all the way through. We stopped over at Des Moines a couple of days, and made our Worthy Brother, N. W. Garretson, a visit at his residence, about two and a half miles from the city. He has a very sociable family, and we had a very pleasant visit. He retains the same faculty for rendering himself agreeable that was so prominent in his character while visiting our coast; and Sister G. spared no pains to make our visit pleasant. We spent ten hours at Moline, Ill., and visited the wagon and plow factories there. It would astonish our Western people to see the amount of work done in each of these two plow factories. In the "Deere Moline" Factory, they told me that they worked 400 men—turning out about 300 plows daily. The Moline Plow Factory is nearly equal to the former.

We left Moline in the evening, arriving in Chicago in the morning, went to the Grand Pacific hotel, and on reaching the dining room the first man we saw was W. M. Hamilton, of your State, taking breakfast, having stopped in this mighty city over night; he started on for Washington at nine o'clock this morning; we remained in this city during the day, looking after some matters of a business nature for the Patrons of Oregon. In the evening we again resumed our march for Washington City, arriving there at six o'clock A. M. on the 28th inst. On visiting the office of the Worthy Secretary of the National Grange, I found quite a goodly number of the members of the National Grange there; we remained in that city until the morning of the 31st inst., when we started for this city, about 57 strong, making nearly two car loads, and you may be sure the trip was a very pleasant one. The members of the National Grange are nearly all here now, and I am glad to be able to say that the Sisters will be very fairly represented here; very much better than they were last year at the meeting in St. Louis. Most truly and fraternally,

DANIEL CLARK.

THE GRANGE ON INTERNAL IMPROVEMENTS.

The Masters of the State Granges for the States of Missouri, Iowa, Wisconsin, Minnesota, Nebraska, Kansas, Ohio, Pennsylvania, Illinois, Michigan and Kentucky, and the Chairman and Secretary of the Executive Committee of the National Grange, have signed and sent a communication to Hon. William Windom, Chairman of the Select Senate Committee on Transportation, strongly urging Congress at the present session to devise some plan for the improvement of the mouths of the Mississippi river. They justly consider inland navigation indispensable to their best and permanent interests, and approve the policy of the Federal Government opening up and improving channels for the cheap transportation to the seaboard. They assert that public sentiment would most unequivocally approve the action of Congress in aiding the proposed work. The Patrons of this State, we believe, are also decided favorable to most, if not all, the projects for internal improvements suggested for this State. They are unanimous in their desire that our rivers should be kept open, and their navigation improved wherever it is reasonably practicable. They are also in favor of some general system for irrigation, which shall be more or less under Government management, either State or National.

FARMING prospects are very good at present throughout Lake county. The young grain is looking well everywhere.

ALFALFA FOR TEXAS.—A Sacramento firm has shipped 1,000 pounds of alfalfa seed to Hugh Stephenson, at Dalles, Texas.

Agricultural Items.

DESTRUCTION OF LAMBS.—A gentleman who has recently made a tour through the northwestern portion of Yolo county, informs the Mail that the destruction of lambs in the hills known as the "Sheep Range," has been quite extensive this season. From the fact that all are killed in the same manner—the bowels being ripped open and the intestines removed—it is said to be the work of badgers, large numbers of which infest the region in question.

WHEAT FROM TURLOCK.—A correspondent writing from Turlock, Stanislaus county, states that there has been shipped from that point by rail since July 1st, 1874, 10,825 tons of wheat. There remains yet at that place, in the different warehouses, 1,250 tons. The town is prosperous, several new buildings having been erected within the last few months. Farmers in the neighborhood are also much encouraged by the present prospects. Most all of them are through with seeding their lands.

THE NORTHERN ENTERPRISE says: "General Bidwell has planted extensively of the raisin grape and is still planting; he has employed the best of skill, and within a few years the rancho Chico will be noted for its large and superior supply of raisins, as the plantations of Malaga have ever been."

THE COMING GRAPE CROP.—The prospect of a large grape crop this year is good. The heavy and long-continued frosts of December and January kept back the buds so effectually that it is believed they will not be far enough advanced to be injured by the late Spring frosts.

A VALUABLE COW POISONED.—On Thursday night, of last week, Mr. A. D. Pryal, of Oakland, lost one of the most valuable Devon cows in the State, through the carelessness of a man employed to poison squirrels, who left a bucket of wheat containing strychnine in her way.

A LARGE STOCK TRAIN.—The heaviest stock-train that ever passed over the Central Pacific passed through on Sunday night. It consisted of thirty-five car-loads of stock from eastern Nevada.

POISONED.—In some sections of the country, quail, hares and rabbits are being poisoned wholesale by the poisoned wheat left on the ground for the squirrels.

PRUNES IN OREGON.—The Granger makes the prediction that in twenty years the export of prunes from Oregon will be greater in value than the export of wheat.

A PROLIFIC SHEEP.—A sheep belonging to Wm. H. Luce, of Sutter county, last week gave birth to four lambs, making seven within the past year.

THE farmers of Yuba and Sutter counties report their grain fields never looking better than at present, and if nothing unforeseen happens big crops are insured.

THE CHERRY CROP.—The Marysville Appeal says the cherry crop in the first ward is destroyed, the buds having been killed by the cold water of the flood.

GOOD YIELD OF POTATOES.—Mr. Geo. Bunn, of Tomales, the king farmer of Marin county, raised 8,000 sacks of potatoes this year on 150 acres.

THE crops throughout Pope valley are looking fine. The farmers consider this one of the most favorable seasons they ever had.

FRIEDLANDER has 12,000 tons of wheat which he is about shipping from South Vallejo.

ALMOND trees are blossoming in Yuba county.

A MANUFACTORY OF PLASTER OF PARIS STARTED IN THIS CITY.—A manufactory of plaster of Paris has been started in this city on Main street, between Howard and Folsom. As there is any quantity of the raw material, gypsum, in this State, the enterprise seems destined to become one of great importance. The principal of the enterprise is Mr. Lucas, formerly connected with a similar establishment in New York city, which supplied most of the plaster of Paris used on this coast. The raw material at present is obtained from Lower California, but is procurable in many parts of the State. Three grades are manufactured—building, casting and superfine. Building plaster is employed for walls and stucco decoration; "casting" for the rougher descriptions of plaster statuettes; and the superfine for the finer qualities of statuary. The ground gypsum is also used as a fertilizer of the soil. Two hundred barrels per day are turned out from the Golden Gate mills, but the production can be increased greatly, according to the demand.

THE BENICIA NARROW-GAUGE.—The Contra Costa Gazette, of the 13th instant, states that it is positively announced that 175 miles of the narrow-gauge road, on the west side of the Sacramento, from Tehama to Suisun, is contracted for and will be completed and in running order before the 1st of October next. There is some reason to believe that the road is to be built this season, and next year extended to Benicia in this direction, and eastward into Butte and Plumas counties.

NEW BOILER WORKS.—A new establishment for boiler-making is being erected by Booth & Co., on the corner of Mission and Fremont streets.

General News Items.

COLD WEATHER AT THE EAST.—Last week seems to have been the cold spell of the season in the East. The cold culminated on Saturday, closing up the rivers on both sides of New York city. Large numbers of fishing vessels were ice-bound in Cape Cod bay, unable to go either in or out. The entire bay was frozen over, an occurrence never known before. A cold wave passed over Maine, New Hampshire and Vermont, on Friday night, which sent the thermometer down to 26 and 32 degrees below zero. In Chicago, the thermometer on Saturday was six degrees below zero at noon. The high wind of Thursday drifted the snow badly and caused a great deal of delay on all railroad lines. Trains on seven different roads were either unable to get in or delayed several hours. Reports from all points state that great inconvenience is experienced on account of the freezing of water-courses and scarcity of water for stock.

THE BEECHER TRIAL is still dragging its slow and disgusting length along, and all excepting a knot of the friends of the chief actors are growing tired of the repetition of the great scandal. From present appearances it is thought by some that the trial will last a month longer. Probably no trial has occurred in the last century in any part of the world which has caused so much sensation, or which presented so many plausible sides—all contrary. The parties most interested seem to be really the ones most at ease. An exchange says: Mr. Tilton laughs at the jokes, eats like a wood sawyer, takes his ride and his glass of sherry, and prepares his case every night with the coolness of a night editor getting up the day's news. Mr. Moulton takes the witness box, laughs and argues at recess, foils counsel, and is a sort of Don Cesar de Bazan in general. Mr. Beecher has a little levee every day, and sits in Court with all his family, as at a pantomime.

A FEARFUL TALE.—A mother and her eight children were burned in their house, near Montreal, Canada, a few days since. The fire caught in the lower part of the house. The father, in trying to put it out, was cut off from his family, and barely escaped with his life. The mother seized two of her children in her arms, thinking to save them and go back for the others. She might indeed have escaped with them, but the cries for help of the little ones left so overcame her, that she preferred to go back and die with all her children than to escape with a part, and she did go.

SARGENT'S LAND BILL.—The Commissioner of the General Land Office writes to the Chairman of the Senate Public Lands Committee that he thinks it expedient to pass Sargent's bill, providing that all even numbered sections, which were included within the railroad limits and afterward restored to the public domain, shall be opened to homestead and pre-emption entry the same as odd numbered sections, at \$1.25 per acre. The Committee still have the matter under consideration.

POSTAL CHANGE FOR CALIFORNIA.—Offices established at Whitehall, Mendocino county, James M. Smith, Postmaster. At Spanish Dry Diggings, El Dorado county, Wm. B. Davis, Postmaster. Office discontinued—Waterloo, San Joaquin county. Postmasters appointed—Harvey Hayne, at Stoney Point, Sonoma county.

MR. BEECHER AND THE N. Y. "LEDGER."—The announcement is made that Mr. Beecher writes no more for the New York Ledger. Whether it is Mr. Beecher or Mr. Bonner who has felt compelled to make this innovation will probably remain forever one of those problems against which the public mind rasps itself in vain.

APPROPRIATIONS FOR CALIFORNIA RIVERS.—Clayton has secured an appropriation from the Committee on Commerce of \$15,000 for the improvement of the Sacramento river. And Page hopes to secure \$10,000 for the San Joaquin river.

POMEROY, THE BOY MURDERER, TO BE SENTENCED TO DEATH.—The Supreme Court in the case of Jessie H. Pomeroy, the boy murderer, overruled the exceptions and ordered judgment on the verdict. He will therefore be sentenced to death.

MARBLE WORKS AT NAPA.—A. C. Thompson, late of Jefferson City, Mo., informs the Napa Register that he is soon to establish marble works at Calistoga. He has some seven thousand designs, embracing the latest styles both of this and other countries, ranging in prices from \$50.00 down.

THE LICK SALE.—The balance of the Lick estate will be sold at auction, at Platt's Hall, on Thursday, April 6th. The property offered includes valuable lots in this city and San Jose.

OF the forty-two millions of passengers carried over the railroads in Massachusetts last year only a single one was killed, and but seven were injured.

SETTLED.—The Santa Barbara wharf trouble, has been settled. The wharf has been repaired and steamers land as usual.

THE Committee on Appropriations inserted in the Indian bill \$30,000 to pay land settlers in Round Valley Reservation.

THE ANTI-CHINESE NATURALIZATION BILL has passed both houses of Congress and will become a law.

SIXTEEN business houses were burned, at Independence, Mo., on Thursday night last.



The Autumn of the World.

[By EDMUND W. GOESS.]

The last wan petals leave the rose,
The latest swallows preen for flight,
The summer's gone, where, no one knows,
With dead men's love and spent year's light,
And warm hearts buried out of sight.

Red roses are the crown of youth;
The warm light strikes on lover's lips,
Laugh thou, and fondle, happy mouth,
And yet, remember, sweet time eludes,
Death hurries on with full eclipse!

So short, so sad! Oh, let not death
Find only faded flowers and wine,
When, hungry for the joyous breath
That dreams not of the year's decline,
He lays his cold, white mouth to thine!

Oling to the flying hours; and yet
Let one pure hope, one great desire,
Like song on dying lips be set,
That ere we fall in scattered fire
Our hearts may lift the world's heart higher.

Here in the autumn months of time,
Before the great new year can break,
Some li'le way our feet should climb,
Some little mark our words should make
For liberty and manhood's sake!

Clear brain and sympathetic heart,
A spirit on flame with love for man,
Hands swift to labor, slow to part—
If any good eince time began
The soul can fashion, such souls can.

And so, when we are dead and past,
The undying world will some day reach
Its glorious hour of dawn at last,
And we across time's enlivened beach
May smile, one moment, each to each.

Sensible Advice About Boys.

We never could understand why so many parents experience such trouble with their boys. We like boys, and think we could select almost any little chap from the street and make a good man of him in time. Almost any child requires to be interested in something; if you let him loaf in the streets, nine chances out of ten he will become interested in something detrimental to his moral life; but if you put him on the right track he will be just as much interested. And almost any mother or father, by a few experiments, can learn what worthy way will attract their child. Give him books, talk over different subjects—you can very soon detect what interests the child—then follow the lead and give him all the advantages he craves. You will find, in time, that it is money in your pocket to keep your boy thus away from bad company and mischief. We expend so much money for our own amusement in parties, concerts, theaters and so on, and leave our boys to the mercy of school life and street associations!

Give your boy a bit of land, some farming tools, even to raise a few flowers or vegetables; or a chest of mechanical tools, scientific apparatus, with specimens, a lens, magnet, microscope. Test all the latent possibilities, and you will yet have a boy to be proud of, even though he be reared in San Francisco. A capable, manly boy is worth thinking about. Keep him busy about something interesting, and you need have no trouble. We stood in a corner grocery the other day when some little, rough, ragged boy came in. They were all smoking; here they met a school companion, and urged him to take some tobacco to make him a cigarette. "I don't use the article," was the manly reply. We made up our mind that that boy had a mother who cared for her children. When we see mothers leaving their children day after day to the care of hired nurses, and leaving them evening after evening to find their own way of passing time, and knowing the temptations ever offered children, we wonder so many select the half-way compromise between good and evil.

How does any one accept parentage without its attendant responsibilities? Is a pure life of so little consequence? We hear parents say, "I cannot manage my boy." We always want to reply, "It is your own fault." We have known people who acted as though the life of their children for good or for evil was not worth a few years of self denial! It should not be self denial either, but pleasure, for the parent to guide the child.

Above all things, interest the boys in their studies. Almost every place in geography has a local history—a story that can be told to fix it in the memory. The family accounts can be handed over to the young arithmetician, and very soon mathematics will assume a personal interest. So in writing and spelling—let kind letters open the way, and the boy will soon excel. It is so easy to learn happily.—*Call.*

WENT HOME TOGETHER.—Mr. and Mrs. Daniel Bigelow died at Genesee Falls, New York, a few days since. They were each over eighty years of age, and had lived as husband and wife for over sixty years, raising a family of sixteen children. Both died on the same day, only a few hours apart, of natural causes and they were buried in the same grave.

A Beautiful Art.

[Written for the Press.]

Some weeks ago, I promised the readers of the RURAL PRESS to give them, during the year, some directions how to make inexpensive, but really valuable Christmas gifts. I am now going to describe a process called photographic printing, by which charming pictures may be taken of our lovely California plants, for albums, screens or any other purpose which may suit the fancy of the collector. The beginner had better commence his experiments with leaves alone, afterwards simple plants like nemophilas or gillies can be taken entire. The first step is to lay in a stock of materials.

We must have good, well dried specimens of all the leaves—maple, abutilon, pear, cherry; every kind is desirable; but those in which the veins are well relieved make the best pictures, and ferns are the most beautiful in form.

Lay the leaves into an old book, and dry with medium pressure.

Now for the chemicals. We must have a lot of sensitized paper, and had better, for economy, make it ourselves. As soon as this pretty accomplishment becomes fashionable, as it surely will, we shall be able to buy these papers, as we do materials for wax flowers and the like, but at present we cannot. Select a dozen sheets of the best wove letter paper, eschewing cream laid or any which shows the manufacturers wire marks when held to the light. We shall want a dozen spring clothes pins or pegs, and a few quarts of rain water. If you have only spring or hard water, this must be distilled before using.

Now put in a medicine bottle, holding at least half a pint, half an ounce (four drachms) of prussiate of potash, in four tablespoonfuls of the rain water. When it is all dissolved, so that none is visible in the bottle, pour half of the solution in a dinner plate, and float on its surface a piece of paper of the size intended, letting it become equally wetted. Then hang it by one of the corners from the edge of a shelf and let it dry. This part of the business must be done in a dark room, by the light of a candle. Candle light does not affect the paper. Daylight would ruin it for this purpose.

Now have two sheets of clear glass. Lay on one of them three or four sheets of white blotting paper; upon this the dried and sensitized prussiate of potash paper with the prepared surface uppermost, and upon this place the fern front or other desired leaf with the back down. (All this, remember, in the dark room). Then lay on the second sheet of glass, and put the clothes pin clamps on the edges to hold it in place.

Some clear sunshiny day, take your prepared object into the light, and leave it exposed for a half hour or more to the direct rays of the sun. If you watch the paper while Nature is printing it, you will observe the part not covered by the leaf changing to a bright blue, deepening with the tint of exposure until it is nearly black. When you take it out of the glasses, you have a yellow leaf on a blue ground. Wash the paper several times in the clear rain water, and every trace of the potash will disappear from the yellow ground, leaving a beautiful, clean white impression.

Freshly sensitized papers are the best, but you can preserve them in absolute darkness if you wish.

These nature printed photographs may be colored true to nature, in autumn tints, or the vernal hues of spring. There are other methods; one, in which the ordinary albumenized paper of photographers is used, after dipping it into a solution of nitrate of silver, sixty grains to the ounce of distilled water. Float and dry as in the previous case. When the picture is painted, and the glasses removed, wash it in rain water, to remove the nitrate of silver; then wash again in a solution of hyposulphite of soda; strength, two ounces to half a pint of water. You will need to keep the pictures, made with nitrate of silver, immersed in the hyposulphite solution for fifteen minutes, in order that they may be permanent.

A great many impressions can be made in the same day by economizing time and space on the papers. They may be ruled off into sizes fit for album cards, and the leaves selected so as to leave neat margins, before the paper is sensitized, by numbering the squares and specimens, the spaces will be quickly filled, and four or more impressions taken at once. The washing and drying process is thus economized also. It is pleasant to have both the upper and lower sides of some leaves taken. Very thick leaves, like the California laurel, should be rejected. Alfalfa is a beautiful leaf for this purpose; so are many of the acacias. The nitrate of silver process is the most perfect, but it is fatal to clothes and delicate hands, and should only be attempted by a careful and dexterous operator.

JEANNE C. CARR.

WISHED TO BE EXCUSED.—A Detroit young woman tried to be aristocratic and did not look at the money that she gave the horse-car conductor; but he meekly gave her back the lozenge on which was written, "I'll never cease to love thee," and said he was an orphan with five little brothers to support, and must be excused.

A MAN with an affectionate disposition, who finds a wife to concur with his fundamental idea of life, easily comes to persuade himself that no other woman would have suited him so well, and does a little daily anapping and quarreling without any sense of alienation.

Significance of the Finger.

Each finger, and the mount at the base of it, is named after a planet. In the normal hand the second finger is the longest, and the third the next in length, while the first is nearly as long as the third and much longer than the fourth or little finger. Jupiter is the first finger; if it be long and not illshapen, and the mount at the base be well developed, it indicates a noble and lofty character and a religious minded person. If disproportionately long, it will mean different things according to the type of hand in which it may be found; or according to the type of that particular finger. In the first type an over-long first finger would denote an inclination to the fantastic or exaggerated in religious matters; or it might, perhaps, mean religious madness; or, if other signs in the hand favored this view, it could be taken to denote pride. Pride is a form of worship—the culture of self. In the second type of hand, the excessive development of Jupiter might mean ambition, or, if it were in a hand that is eminently unselfish, it might stand for a something that is puritanical in manners or morals—a type of too great a severity. In the third type, a very long first finger would probably signify vanity. The second finger is Saturn. If too prominent it announces melancholy, or misanthropy, or downright cruelty, according to the type of hand, but if the finger be within due proportion, this sadness may take the form of pity for others, or it may mean a becoming gravity. The third finger is Apollo and belongs to the arts. In a "pointed" hand Apollo will give poetry and music (composition); and in a "square-shaped" hand, painting, sculpture, (here art leaves the domain of the purely contemplative—it becomes partly active from the combination of manual skill with only what is imaginative); and in a "spade-shaped" hand Apollo gives histrionic power, an aptitude for acting, or a love of theatrical amusements. On the stage art, is joined in the closest manner to motion. The fourth finger is Mercury. If well proportioned, it promises a scientific turn of mind. Resourcefulness and diplomacy and palmistry agree in almost all particulars about the thumb. In both systems it is treated as the most important part of the hand. The upper joint, that with the nail, stands for the will; the second division, the reasoning faculties; the base, the animal instincts.—*St. Paul's Magazine.*

POWER OF BEAUTY.—A lovely woman necessarily exercises a great deal of power; but the foolish girl who relies solely on her own regularity of feature, and neglects the cultivation of her mind, is a melancholy spectacle. Her selfish little heart, her barren little mind, lord it all over her cheap superficial beauties, and will soon leave nothing behind but a dreary waste. Her little victories are temporary, her little failures lasting. She can never be a power. She can scarcely help being a drag. Her companions must be among the commonplace, not to say vulgar, for she has nothing in common with the lofty and the grand. She would gasp on the heights. She can assimilate nothing beyond the material. There is danger that she will soon be unable to rise above the mean.

ROUGH BOYS.—It is always pleasant to see boys well behaved and kind; but rough boys do not always make bad men. A tried and anxious mother lately wrote to a friend asking what she should do with her boy of ten years, who within the last few days drowned seventeen kittens, tied pans to the tails of nine dogs, washed his father's new silk hat against the nap and blow up his sister's pet canary with a fire-cracker.

The friend, endeavored to console the dejected mother, by answering her note as follows: Your boy will be all right provided he undergoes the necessary moral change. His boyish pranks indicate life, activity, energy and force. When these come into subjection to his moral sense, if you choose you can make a minister of him, and he will preach to some effect, instead of putting his congregation to sleep. A wise mother will find such employment for her children as to keep them out of mischief. That is her privilege, her duty. It is occupation, suited to their years, that all children need; not idleness, not heavy tasks of either body or mind, but "something to do." This parents must furnish, or "Satan finds some mischief still for idle hands to do."

A POPULAR GAME.—Here is a new game, very popular in the country just now: A young man takes a chestnut, cuts round the hull with a sharp knife, and then takes one-half the chestnut in his mouth, and a pretty girl the other half in her mouth, and they pull and the hull comes off. There may be quicker methods of hulling chestnuts, but none more soothing to the feelings of the young folks; and they don't get mad and dance wildly around if the hull don't come off for five minutes or so. Country games are not to be despised, after all.

GREELEY'S DAUGHTERS.—A New York paper says: "It is now nearly two years since the death of Mr. Greeley, and this season, for the first time since that event, his daughters, Ida and Gabrielle, occasionally make their appearance in public. Gabrielle is still very young, but has grown during her years of seclusion into a tall and very beautiful girl. Both have exquisite complexions, lovely eyes, ripe, scarlet lips, and sweet expressions."

The Wrong Kind of a Candle.

A Kentucky paper relates that during the Christmas holidays, Starling Curd, an industrious colored man, living near Bristow, in that State, gave an entertainment at his house. His wife asked him, coming to town the day before the frolic, to get a tall candle with which to ornament and illuminate the table. Starling called on H. C. Hines & Co. for the candle, but stated the case in such a shape that Mr. Hines thought he wanted a Roman candle. It was accordingly put up for him, and Starling returned to his home, when his wife insisted that he had made a mistake, saying that it was a candle she wanted. Starling assured her that it was the latest style of candle he had purchased, and, to prove it, stuck it into the fire. To the astonishment of both, a flaming ball popped out; then another, and another, when the frightened Starling dropped the "infernal machine" upon the floor. Another explosion, threatening the destruction of the house, and he again seized it, but, unfortunately, wrong end foremost, when a ball struck him in the abdomen. Suddenly turning it around, another ball shot out striking a new counterpane, through which it burned a large hole. The whole household was in a state of terror, and Starling went to town the next day with a mind full of lawsuits for damages, but, being a fair-minded man, was pacified when it was explained that Mr. Hines misunderstood him.

The Family Circle.

The Baltimore Sun alluding to the prevalence of crime among boys, very properly asserts that one of the main causes of the decline of morality is the decay of discipline. The family circle the domestic hearth, is the true fountain of purity or corruption to public morals. Most people become what they are made at home.

They go forth into the world to act out the character they have formed in the first fourteen years of life. It is alleged, in excuse, that children have become more unmanageable than they used to be. We reply that human nature and human relations are unchanged.

Children are just as amenable to authority as they ever were. This is the main purpose for which Providence has made them helpless and dependent, that they may be trained to obedience, to order, to industry, to virtue. It is not true that parents have not as absolute control over their children as they ever had.—When there is dependence, obedience may be enforced. The real fact is, that parents are too indolent, too negligent, too indifferent, to take the pains to train up their children in the way they should go. It requires perpetual vigilance, and they get tired. It requires self-control to exercise a proper authority over others. Self-conquest is the greatest victory over all. There can be no just parental discipline, when there is no character to back it.

THE PLEASURES OF LAW SUITS.—No man is so full of business as he who has a law suit, and no man does so little. He attends to nothing. "From morn to noon, from noon to dewy eve," and through the long gloom of night he is full of it. It is his waking dream by day, and sleeping vision by night. It is going on, or it is not going on; he has to produce more papers, or he has brought forward all the papers that can be produced—each is a sufficient cause for thinking and speaking of it to the exclusion of all things besides. He is like a musical snuff-box that only plays one tune; you can get nothing but that out of him. It is a grief due to every breast, in his imagination; and upon every breast that he can hold by the button he mercilessly inflicts it. He is restless, fidgety, nervous, cross, exhausted, depressed, happy and miserable, in delight and despair by turns, and is forever "ringing the world with a vain stir."

THE VALUE OF TROUBLES.—A person is not worth much that has not had troubles. You cannot subdue selfishness without a struggle. You cannot restrain pride without a conflict. You cannot expect to go through life without bearing burdens. But you are going to have help under circumstances that will redeem you from these things. You are going to experience more victories than defeats. Your suffering will be only here and there—little spots in a whole field of peace and joy.

HOW TO EDUCATE PRINCESSES.—The Queen of England's daughters are examples to the rest of the fashionable world in industry and taste. At the royal Swiss cottage each of the princesses has a garden which she cultivates with her own hands. They have learned to cook, and they frequently sit down to a meal prepared by one or the other. Louise, wife of the Marquis of Lorne, is a clever artist, and all of them are accomplished in some way or other, besides being excellent linguists.

A LAWYER PUZZLED.—A Boston lawyer sends this: "Twenty years ago, just after I was admitted to the bar in Maine, I called one evening on the young lady who has since become my wife. I made friends with her little brother Addie, and when he ran out of the room, heard him ask his mother confidentially, 'Mamma, do you think angels' wings are strong enough to carry lawyers to heaven?' The good woman answered was lost in the 'Hush, dear!' but in the battle of life since then the question has come back more than once."

POOR LAND.—Somebody says of a not very good piece of land, "It is so poor that not even a disturbance could be raised upon it."

The Sackful of Earth.

A rich man had by an unrighteous law-suit obtained from a poor widow a small field, by the produce of which she was just able to maintain herself. The inconsolable woman came to the merciless man with the humble request that he would allow her to take away a sackful of earth from her former possession. The rich man consented with a contemptuous smile; so the widow went with a large sack, and dug and shovelled till it was quite full from the bottom to the top. When she had finished, she asked her plunderer, who had been looking on, to help her to lift the sack upon her shoulders. To this he also consented, and exerted all his strength in order to lift the load; but it was of no use—it was too heavy.

As he was about to go away to fetch a strong laborer to lift it, the widow held him back, and said, "Friend! stay here; as I am obliged to give up the whole field to you, therefore I will leave you the sackful of earth also. But can you answer me the following question: 'As this sack is already too heavy for you, will not the whole field weigh still more heavily on you before God's judgment-seat, and crush you to the ground?'"

The man's conscience was touched by this reproof, and he gave the field up again to the widow.

A CANARY'S LESSON.—The following anecdote was told me by a very sweet and gentle-hearted person, who has found through her life great happiness and good from watching and caring for animals:

She had a pair of canaries, and thinking that they needed something bright and fresh in their lives, she went out and dug a sod of grass and clover, the size of their cage. After a time three young birds were hatched, of whom, judging by what followed, the parents took uncommonly good care. One morning, the female, having taken her bath, hopped on the edge of the nest, intending to take her place with her young ones under her wings, but without having dried herself. The male flew to her and scolded her a little; still she persisted, when he resolutely beat her away. Finding she was still determined to come on the nest, he settled himself there and covered his children with his own wings until she was properly dried, which was not for half an hour, during which time he twittered at her incessantly. Then, having seen that she had shaken out and smoothed her feathers, he left the nest and allowed her to resume her maternal duties—a wiser and a better wife and mother.—*Our Dumb Animals.*

SHIRT MAKING MADE EASY.—In olden time a wife's great honor was shirt-making. Now it is simply a pastime. In selecting muslin for shirts always get the best, either New York mills or Wamsutta—most ladies prefer Wamsutta, as it is easier washed. Buy one of Butterick's shirt patterns for twenty-five cents, or, better still, when your husband goes into the city, have him call at a professional shirt-maker and have a pattern cut expressly for him—warranted to fit. All trouble and worry is now at an end, as all you have to do is to cut and sew according to directions. The new way of shaping the bosom saves it from the wear of suspenders, and also prevents mussing. Slope the bosom gradually from the middle to about three inches in width at the bottom; line bosom, cuffs and collars with coarse linen, as it holds starch better than cotton. The higher polish the shirt receives in ironing, the longer they repel dirt and dust. Open the shirt in the back by all means, and the bosom will wear as long as the body of the shirt, thereby saving the expense and time of reboosoming old bodies.—*Ex.*

A WIFE WORTH HAVING.—A Michigan paper says: "Young man, if you are looking for a wife come to Michigan, the noble Peninsular State, and we'll put you on the track of a young lady who can husk her fifty bushels of corn per day, yoke oxen, drive horses, teach school, and saw with a cross-cut saw. She wants to be loved for herself alone."

A man may conceal his name, his age, the circumstances of his life, but not his character. That is his moral atmosphere, and is as inseparable from him as the fragrance of the rose from the rose itself. In the glance of the eye, in the tones of the voice, in mien and gesture, character discloses itself.

THE LEADING BROOM MANUFACTURERS of eastern New York, who claim to make a quarter of all the brooms made in the United States, have held a convention and decided to elevate the price of that household necessity twenty-five cents on a dozen.

THE CAT.—It is an interesting fact, quite recently established, that the cat of the Greeks and Romans was in reality the white-breasted beech marten (*Mustela foina*), common in the wooded districts of central Europe. The modern cat was domesticated in Egypt.

A BIG WORLD.—A Georgia paper knows a man who went all the way from Cassville to Atlanta. On his return he looked solemn with the weight of garnered wisdom, and said: "If the world is as big t'other way as it is that, it's a whopper!"

A GOOD MAN and a wise man may at times be angry with the world, and at times grieved at it; but no man is ever discontented with the world if he does his duty in it.

YOUNG FOLKS' COLUMN.

A Noble Boy.

The following touching episode in street life, is a beautiful gem, and should find a place in all memories, surrounded with pearls of sweetest thought and gentlest sympathy. About nine o'clock in the morning, a little boy of twelve, whose pocket and white apron distinctly indicated that he followed the profession of a pastry-cook, was returning from market with an open basket upon his head containing butter and eggs. When he reached the vicinity of the Churoh of St. Eustache the lad, who could only with difficulty make his way through the crowd, was violently jostled by a stranger who was passing, so that his basket tipped and fell to the ground with its contents. The poor lad, when he saw his eggs all broken and tumbled into the gutter, began to cry bitterly and wring his hands. A person who happened to be in the crowd that gathered round the little fellow, drew a ten cent piece from his pocket, and giving it to the boy asked the rest who stood grouping around to do the same to make up the loss occasioned by this accident. Influenced by this example, every one present complied, and very speedily the boy's apron contained a respectable collection of silver. When all had contributed their quota, our young varlet, whose distress had vanished in a moment, as though by enchantment, warmly thanked his new benefactors for their kindness, and forthwith proceeded to count the money he had received, which amounted to two dollars and thirty cents. But instead of quietly putting his sum in his pocket, he produced a bill of the articles he had lost, and appropriated no more than that sum, and then observing in the group that surrounded him, a poor woman in rags, the gallant little fellow walked up to her, and placed the remainder in her hand. Certainly it could have been impossible to show himself more deserving of public generosity, or to acknowledge it in a handsomer manner. The boy's noble conduct was greeted by the applause of the crowd.

A Word to Boys.

A writer in an educational journal, the title of which we have unfortunately lost, has the following pertinent and truthful remarks:

Boys, listen! The first thing you want to learn, to develop what force there is in you, is self-reliance; that is, as regards your relations to man. If I were going to give a formula for developing the most formidable set of men, I should say, turn them upon their own resources with their minds well stored, with moral and religious truth when they are boys, and teach them to "depend on self, and not on father." If a boy is thrown upon his own resources at fifteen, with the world all before him where to choose, and he fights the battle of life single handed up to manhood, and don't develop more than average share of executive ability, then there is no stuff in him worth talking about. He may learn "to plow, and sow, and reap, and mow," but this can all be done with machines and horses, and a man wants to be something better than these. Wipe out of your vocabulary any such words as *fail*, give up wishing for improbable results, put your hand to the plow, or whatever tool you take to, and then drive on and never look back. Don't even sight your person to see if it is straight; "don't be consistent; but be simply true." If you go "to see a reed shaken by the wind," it is pretty likely you will never see anything of more consequence.

BOYS HEED THIS.—Many people seem to forget that character grows, that it is not something to put on ready-made, with womanhood or manhood; but day by day, here a little, there a little, grows with the growth and strengthens with the strength, until good or bad, it becomes a coat of mail. Look at a man of business, prompt, reliable, conscientious, yet clear-headed and energetic. When do you suppose he developed all these qualities? Let us see the way in which a boy of ten years gets up in the mornings, works, plays, studies, and we will tell you just what kind of a man he will make. The boy who is late at meals and late at school stands a poor chance of being a prompt man. The boy who neglects his duties, be they ever so small, and then excuses himself by saying—"I forgot! I didn't think!" will never be a reliable man. And the boy who finds pleasure in the suffering of things will never be a noble, generous, kindly man—a gentleman.

REMARKABLE PERFORMANCE.—When Wm. H. Seward made his tour around the world, he witnessed some performances of jugglers in India which were quite surprising. He saw a man climb a bare pole sixty feet high, standing in the open air, and when he reached the top he mysteriously disappeared. After a while his feet reappeared, then his legs and body and he came down. He claimed no supernatural powers. How did he do it?

ONLY ONCE.—You will pass through this world but once. If, therefore, there be any kindness you can do to any fellow being, let it be done now. Let it not be deferred or neglected, for you will not pass this way again.

GOOD HEALTH.

Health and Culture.

We are in danger of becoming a nervous, uncomfortable, discontented, wretched race, unless we use our best thought and effort to bring the highest wisdom, and virtue, and order that are within our reach to bear upon our way of living. Hence the importance that more attention should be paid to the laws of health—that they should be made a study by the masses, that the principles upon which good health is founded should be taught in our common schools, and information thereupon spread broadcast by our newspapers. Hence the importance of "Health Associations" where educated men of all professions—not exclusively of the medical profession—should come together to receive and impart instructions upon this important topic.

The matter of health, in fact, should be made a part of the highest human culture, for, as recently remarked by a distinguished divine, Rev. Dr. Osgood—"Body and mind are practically inseparable, and we know nothing of the sound mind apart from sound blood and brain. I am willing to take Herbert Spencer's definition of life as the basis of our discussion, and to allow that life is the continuous adjustment of internal relations to external relations, if by external relations we comprehend those which are social and religious as well as those which are physical. If life is the continuous adjustment of internal relations to external relations, then healthy life is such adjustment truly and fully carried out, and he is the healthy man who lives in true relations with nature, man, and God."

In this connection, we may also introduce the following remarks of Professor S. D. Gross on our sanitary deficiencies:—"As American citizens, we boast, and very justly too, of our progress in commerce, agriculture, manufactures, literature, the arts and sciences, and the general diffusion of knowledge among all classes of society, but what have we done as a nation for our sanitary condition, for those things which so vitally concern the public health, the dearest interest of every family in the land? The Government has done nothing; it has not even recognized the necessity of a great Bureau of Health, so essential in a sanitary point of view. Our local boards of health, as they are denominated, are mere shadows. The creatures for the most part of municipal authorities, who farm out our health and our lives to the highest bidder at so much a head. Surely the first, the greatest duty of a nation is to protect the lives of its citizens, by teaching them how to live, how to guard against disease, and how to improve the race. The sanitary condition of a people is intimately associated with its moral and religious welfare. People cannot be good or happy if they are not healthy. The Bible declares cleanliness to be next to godliness. Millions of people die every year from preventable diseases. Sensible men no longer ascribe the frightful outbreak of those epidemic diseases which occasionally ravage whole nations, to the wrath of an offended Deity; they know better; they know that they are due, for the most part, to man's ignorance, or man's criminal neglect?"

Cure for Corns.

A subscriber, "J. A. H.," writes from Virginia City, Nevada, as follows: "As a regular subscriber to the Press, from which I derive many valuable items of information, I wish, for the benefit of others, to speak of one which I consider has been worth more to me than the price of subscription for your paper for several years. For more than ten years I have been troubled exceedingly by corns. I was obliged to pare them as often as once a month, and had twice been to corn doctors for relief, which, however, proved to be of very transitory character. Some three months ago I saw an item in the Press taken from a French medical journal recommending per chloride of iron as a remedy. This struck me so favorably that I concluded to try it. I followed the directions, applying it morning and night with a small brush for the space of two weeks, after which I pared the tough skin away and could detect no signs of a core beneath, although before the application it could be distinctly seen every time the corn was pared. Since then I have not experienced the least pain from either of them. New flesh has formed over the places occupied by the corns which shows no disposition to harden, and from their present appearance I pronounce them radically cured. They were hard corns with cores; of its effect upon soft corns I know nothing, but our opinion is it would be just as efficacious."

COLD ON THE LUNGS.—If a cold settles on the outer covering of the lungs it becomes pneumonia, inflammation of the lungs, or lung fever, which in many cases carries the strongest man to his grave within a week. If a cold falls on the inner covering of the lungs it is pleurisy, with its knife-like pains, and its slow, very slow recoveries. If a cold settles in the joints, there is rheumatism in its various forms; inflammatory rheumatism, with its agonies of pain, and rheumatism of the heart, which in an instant snaps the cords of life with no friendly warning. It is of the utmost practical importance, then, to know not so much how to cure a cold as how to avoid it.—*Wood's Household Magazine.*

DOMESTIC ECONOMY.

Danger of Tin Vessels for Cooking Acid Fruits and Vegetables.

In a paper addressed to the French Academy of Sciences, Dr. Fordos gives the results of some experiments on tin vessels used in laboratories and hospitals, and even in private families, for infusions and similar purposes. These utensils generally contain lead in certain proportions, and it was, therefore, desirable to learn how far that poisonous metal might be injurious to health in the long run. Dr. Fordos began by introducing water acidulated with one per cent. of acetic acid into a tin can provided with a lid. After letting it stand for a few days, he observed on the inner surface of the vessel a slight white deposit, which was soluble in the acidulated water, and communicated to it all the characteristics of a lead solution; iodide of potassium yielding a yellow precipitate, sulphuric acid a white one, and sulphureted hydrogen a black one. Nevertheless, the latter test is not reliable, since it causes a dark precipitate, with a salt of tin likewise dissolved in the liquid. The existence of a salt of lead in the white deposit is, however, sufficiently proved. It is confirmed in another way; if the inner sides of the vessel be rubbed with a piece of clean wet paper, a solution of iodide of potassium will turn it yellow. In certain experiments, a crystallized salt of lead was detected at the bottom of the jug. In other series of experiments, wine and vinegar were tried; they both became charged with lead, as they dissolved the lead salt deposited on the sides. Again, tartaric lemonade, left for twenty-four hours in the vessels, became impregnated with lead. Hence, Dr. Fordos concludes that in alloys of tin and lead both metals are attacked, the latter being generally the first, when in contact with the atmosphere and acid liquids, such as wine, vinegar, lemonade, etc.; and that consequently there may be serious danger in using such alloys, either in the shape of vessels or in tinning culinary utensils.

Bread from Sawdust.

The chief alimentary substances employed by man may be reduced to three classes, viz: Saccharine, fatty and albuminous substances, of which sugar, butter and eggs may be taken as representatives.

The saccharine principles include the majority of vegetable substances, whatever their sensible properties may be, namely: those into the composition of which oxygen and hydrogen enter, in the proportions in which they form water.

The fiber of wood is an example—it is chemically known as lignine; and by skillful manipulation Professor Anterith, of Turbingen, some years ago succeeded in making a tolerably good loaf of bread from a deal board.

The operation was as follows:

Everything which was soluble in water was removed by prolonged maceration and boiling; resinous matter was extracted by alcohol; the wood was then reduced to fiber, dried in an oven, and ground as corn, when it had the smell and taste of corn flour.

Water and yeast were added, and upon being baked it had much crust and a much better taste than bread made from bran or husks of corn.

Wood flour boiled with water furnishes a nutritious jelly; Prof. Anterith ate it in the form of soup or gruel, and in dumplings or pancakes, which were palatable and wholesome.

Prof. Brande, in his lectures, records an analogous result: "Gum and sugar may be obtained by the action of sulphuric acid upon woody fiber. Bread has been made from this substance. Seeing the close resemblance between the composition of starch and lignine, the conversion of the latter into bread does not appear so remarkable."

ORANGE JELLY.—Oranges filled with jelly is a fanciful dish, which makes a pretty appearance on a supper table. Take some very fine oranges, and with the point of a very small knife cut from the top of each a round hole about the size of a silver quarter; then, with the small end of a tea or egg spoon, empty them entirely, taking great care not to break the rinds, and then throw these into cold water and make a jelly of the juice, which must be well pressed from the pulp and strained as clear as possible. Color one-half a fine rose-color with prepared cochineal, and leave the other very pale; when it is nearly ready, drain and wipe the orange rinds, and fill them with alternate stripes of the two jellies; when perfectly cold cut them in quarters and dispose of them tastefully in a dish with a few light branches of myrtle between them. Cal's foot or any other variety of jelly or blanc mange may be used at choice to fill the rinds. The colors should contrast as much as possible.

A GOOD CAKE.—Take three heaping table-spoons of powdered or granulated sugar, two of butter, one of maizena, one egg; put with this two onps of flour, half a cup of sweet milk, a tea-spoon of cream of tartar, half a tea-spoon of soda, a pinch of salt, and Zante currants. Roll this out in powdered sugar, cut the dough in strips, and twist them as you would champagne oakes,



PUBLISHED BY

DEWEY & CO.

J. DEWEY, W. B. EWER, G. H. STRONG, J. L. BOONE
PRINCIPAL EDITOR.....W. B. EWER, A. M.

OFFICE, No. 224 Sansome street, Southeast corner of California street, where friends and patrons are invited to our SCIENTIFIC PRESS, Patent Agency, Engraving and Printing establishment.

SUBSCRIPTIONS payable in advance.—For one year, \$4; six months, \$2.25; three months, \$1.25. Remittances by registered letters or P. O. orders at our risk.

ADVERTISING RATES.—1 week, 1 month, 3 months, 1 year
Per line,.....25.....80.....2.00.....5.00
One-half inch.....1.00.....3.00.....7.50.....24.00
One inch.....2.00.....5.00.....14.00.....40.00

Large advertisements at favorable rates. Special or reading notices, legal advertisements, notices appearing in extraordinary type or in particular parts of the paper, inserted at special rates.

No Quack Advertisements inserted in these columns.

SAN FRANCISCO:

Saturday, February 20, 1875.

TABLE OF CONTENTS.

GENERAL EDITORIALS.—Those Botanical Specimens from Auburn; The Scuppernon Grape; California River Scenery; Smith's Improved Rein Holder; A New Street Pavement, 113. Washington's Birthday; Alfalfa Appreciated; The Ice Crop of 1874-5; Economic Botany, 120-121. Best Varieties of Fruits, 121. Patents and Inventions, 124.**ILLUSTRATIONS.**—California River Scenery; Smith's Improved Rein Holder, 113. Economic Botany, 121.**CORRESPONDENCE.**—Dress Reform; Apples in Tuolumne County; Not of the "Barley Scratches"; School Books and School Yards; West Side of San Joaquin, 114.**THE HORSE.**—Old Collum Again; Long-Legged Horses, 114.**POULTRY YARD.**—Profits of Poultry Keeping; Death Among the Pests, 115.**THE VINEYARD.**—Review of Grape Culture Correspondence, 115.**USEFUL INFORMATION.**—About Bricks; Interesting and Pretty Parlor Experiment; An Old Gas Well, 115.**PATRONS OF HUSBANDRY.**—Progress of the Patrons in California; New Granges; Meetings; Etc., 116-17.**HOME CIRCLE.**—The Autumn of the World (Poetry); Sensible Advice about Boys; Went Home Together; A Beautiful Art; Wished to be Excused; Significance of the Finger; Power of Beauty; Rough Boys; A Popular Game; Grooley's Daughters; The Wrong Kind of a Candle; The Family Circle; The Pleasures of Law Suits; The Value of Troubles; How to Educate Princesses; A Lawyer Puzzled, 118. The Sackful of Earth; A Canary's Lesson; Shirt Making Made Easy; A Wife Worth Having; A Big World, 119.**YOUNG FOLKS' COLUMN.**—A Noble Boy; A Word to Boys; Boys, Heed This; Remarkable Performance; Only Once, 119.**GOOD HEALTH.**—Health and Culture; Cure for Colds; Cold on the Lungs, 119.**DOMESTIC ECONOMY.**—Danger of Tin Vessels for Cooking Acid Fruits and Vegetables; Bread from Sawdust; Orange Jelly; A Good Cake, 119.**AGRICULTURAL NOTES** from various countries in California, 124.**MISCELLANEOUS.**—Industrial Items, 115. Agricultural Items; General News Items, 117.

Washington's Birthday.

The date of this week's Press is close upon the heels of the anniversary of the birthday of America's greatest man. The eulogies on Washington have probably been as numerous as those that have been bestowed upon any man that the world has seen; and they will never cease; for the most brilliant eulogists will never fail to find something in his character or record to praise, and his more humble admirers will realize more and more the greatness and goodness of America's model man. Our indebtedness to Washington as a soldier and statesman has been duly acknowledged by the present and past generations; but it will not be until many generations have passed away that the nation fully realizes its indebtedness to Heaven, through him, in furnishing us with a model which, lofty as it is, presents more incentives to popular imitation than any other hero of history; and in the character of Washington we see this important truth demonstrated, that greatness and goodness are not incompatible.

THE HOME FLORIST.—We are indebted to Long Bros., Buffalo, N. Y., for a copy of a neat, substantially bound book, bearing the above title and containing much interesting and practical information. Many of the flowers mentioned are beautifully illustrated, and the descriptions and directions for cultivating them are complete; being prepared by Elias A. Long, a practical florist and one of the firm of Long Bros. To any one interested in flowers and ornamental plants, and especially to those engaged in their cultivation, this book will be well worth the price at which it is sold; in paper 30 cents, in cloth 60 cents.

ON FILE.—"Odds and Ends," C. A. C.; "The Future of California Fruit," G. C. P.; "Evolution of the Phylloxera," J. P. M.; "Trial of Straw-burning Engines," J. W. R.; "Take Good Care of Your Servants," N. A. P.; "Acacia Gold," J. C. C.

Alfalfa Appreciated.

If an estimate could be formed of the increase of acreage sown to alfalfa on this coast, within the past year, it would make a showing which, in our opinion, would be one of the most satisfactory that the agricultural year presents. If there were any spasmodic symptoms about this alfalfa movement, we should not rejoice at it, but it has been steadily increasing without any respite whatever. Judging from the communications, on the subject of alfalfa, that have passed through our hands, we should say there has been a sort of mania, did we not know the circumstances of the case. There has been nothing rash in the rapid increase of this product. On the contrary, there has been an undue amount of caution manifested in regard to it. Careful enquiries have been made concerning the requirements of alfalfa, as though anything possessing so much value must, of course, be difficult to grow; when there is probably no plant that grows, certainly no forage plant, that is more cosmopolitan in nature and habit than alfalfa.

We cannot now call to mind one instance of failure among all the reports that the Press has received from this crop. The accounts received from correspondents, and from those whom we have interviewed on this subject give assurance that we have within the year just past secured a great acquisition to the stock-feed of California. This great increase is distributed in patches and moderately sized fields throughout all portions of the Pacific coast. Many of our friends have reported that they are increasing their farm stock, or that they are extending their dairies in consequence of now having a good field of alfalfa.

We are thus reaping an immediate profit from this increase of alfalfa acreage; but this, desirable as it is, is as nothing compared with the permanent gain that will accrue from it. The enormous yield of this crop has received so much attention that farmers have not yet considered the great advantages to be derived from its remarkable permanency. In this respect it surpasses anything that has ever been used for meadows and pastures.

There is scarcely a doubt that alfalfa is destined to be the principal reliance of our farm stock generally, and that the establishing of a great California dairy will depend mainly on a liberal cultivation of this crop. Besides we should give some consideration to the change which a great increase of thrifty, permanent pasture and meadow crop will effect upon the face of the country. If we can have fields covered with a growth that will withstand our dry seasons far better than anything we have hitherto possessed, they will give a greatly improved expression to the country, at a time when the country proper ought to be the most attractive; but when California, unfortunately, shows to least advantage.

We hope, therefore, that the farmers of this coast will not be influenced by any misgivings about a probable reaction in regard to growing alfalfa; for they may rest assured that we have a reliable and enduring friend in this new comer. And if they will glance over the agricultural news from the Atlantic States, they will find that the increase of acreage given to alfalfa there, is fully equal to that of California. Nor is it as great a novelty, even in American agriculture, as many suppose. Eastern importers of stock, in making their purchases in England, became convinced of the value of alfalfa or lucern, as it is called by English farmers, as feed, and were induced to try it at home. Like the farmers of California, they were incredulous about the reports in its favor; or if they believed what was said of it, like us, they thought that every thing valuable is difficult to propagate. We were present at a meeting of the Central N. Y. Farmers' Club, when Senator Campbell, owner of the celebrated Yorkville herd, and President of the Club, exhibited a few stalks of lucern, it being the first that any member present had seen. Mr. Gibson, who selected and managed Mr. Campbell's stock, being a practical English farmer, was well acquainted with the merits of alfalfa, and by his statements removed many of the doubts from the minds of those present. There is not that necessity for introducing this crop in that portion of the country that exists here; but as the farmers there are ready to accept any improvement, the cultivation of alfalfa is steadily increasing.

THE CALIFORNIA RAISIN COMPANY.—We are pleased to see the announcement that a company has been formed and incorporated for the purpose of raising and curing grapes. This is what we want. We need capital and commercial ability combined with thorough grape culture; and, judging from the reputation of parties mentioned in this connection, we believe the company possesses the above requisites. We had conversed with some of the representative members of the company previous to its incorporation, and were pleased to find that they had given due attention to the matter of disposing of their products, and had made a thorough survey of the market and its incidents.

The Directors consist of J. P. Whitney, N. P. Cole, F. S. Chadbourne, S. J. Merrill and B. P. Moore. The capital stock is \$40,000, divided into 400 shares.

UNDER CONSIDERATION.—"A Fertilizer worth Millions, etc.," J. B.; "Letter from National City," E. T. B.; "The Chamber of Commerce," W. J. S.

The Ice Crop of 1874-5.

From our exchanges and correspondence we gather such information as warrants the belief that the ice crop of the present winter will be an unusually good one, both in quantity and quality. A correspondent writes as follows from Winnebago county, Illinois:

"We have had five weeks that the thermometer has stood below zero in the morning at six o'clock, and two mornings at 27°, and one at 29°. Streams are drying up and wells failing. There never was a time when there was as little water in Rock river as there is now. But then, the ice crop is good."

Those who believe that man can live by bread alone may possibly consider this of very little consequence, anyway; but they should be told that ice is a very important crop, though statisticians, superficial as well as official, have given it the cold shoulder. This is almost unaccountable, for they must know that its value is counted by millions; and there is scarcely a crop that the earth—we mean the water—produces, that adds more to the enjoyments of life. We would like much to see some of our figure slingers perform a few capers on ice. We should expect to see them cut a very sorry figure at first, and the most careful of them would probably have a "slip up," for the old—too old—saying, "figures won't lie," is itself proved a lie here—for we have seen figures innumerable lying upon the ice of our Eastern rivers, ponds, skating parks, etc.; not on account of the absence of lamp-posts, but because people had given too exclusive attention to brain culture and the training of their hands, sadly neglecting the education of their heels. It would be well to suggest here that market reporters writing upon the subject of ice will scarcely ever be called upon to record a rise; the movements here being mostly on a falling scale.

And if any of our friends are about embarking in the ice trade, we here caution them that it is a slippery business. There always have been, and always will be, a great many corners in ice. We have known cases where it seemed as if every block on a sleigh-load of ice had four or five corners. There is also a great deal of freezing out in connection with the ice trade; but if they will only keep cool, be careful and not let any trade slip through their fingers, see that every sale is strictly on the square, never giving observers occasion for saying "that's a little too thin," being mindful about never venturing beyond their depth, there will be no danger of their going under, no matter what breaks may occur in the ice market.

We are aware that ice is not strictly an agricultural product, especially in California; and our only apology for thus sliding out to it is that visions of memory dance, or rather skate, before our mind as we recall how the spirit of the Ice King is moving upon the waters of the lakes, rivers and mill ponds of the East, and renders it possible for man to put, not only all things that are on land, but in the water also, under his foot. And with these visions come longings for one of the few things that all the "resources of California" cannot supply. Are there not many of our readers who will give a hearty sympathizing "that's so" to this candid statement. Skating is one of the untransportable enjoyments that we left "back there."

There is no situation in life, we venture to say, in which a man feels more supremely mercurial, than when he has harnessed his feet to a good pair of skates, and takes his position among scores of companions similarly equipped, upon one of those large bodies of "glary" ice, three feet thick perhaps—we have filled the farm ice-house many a time with ice of three feet thickness—and glides swiftly into the cheering, exciting sport. For the ordinary skaters there was the stirring games of "crossing the line," "prisoner's base," racing and "barbaree," while the more artistic performers would be displaying their skill in graceful engravings and in intricate winding. Some of these would write their own, or still dearer names, upon the clear ice in a style that an engraver could scarcely excel, with various other achievements "plain and ornamental."

The atmosphere was so stimulating and so pure, the sport was of such an endless, mazy character, and the exercise was of so exhilarating a nature, that there is no difficulty in accounting for the high position which skating has always held among manly sports. On such occasions old Time himself seems to have buckled a pair of first-class skates to his feet, and goes "scooting" along faster than ever.

Brain work is a pretty good thing, and sometimes good results come from it, and hand work is also of great utility. These matters will not fail to receive due attention, for it is all the fashion to write and talk about them; but for our part we like to see well educated feet, with good muscular legs to supply the motive power, and there is nothing like skating for producing these results. If we could have a few hundred acres of ice in the vicinity of San Francisco during a good portion of each winter, the city would not be afflicted with such a spider-legged, flat-footed community of young men as at present.

But we can't have everything in one locality; and while we are boasting of our winter fruits and flowers, our Eastern friends will perhaps be revelling in their skating carnival, and pitying our effeminacy. But for our part we say: give us the soft, warm grasp of the semi-tropic hand, before the icy, semi-polar grip. Still, there is now and then an occasion when Providence kindly offering us a favor, we feel like saying, "we will have it iced if you please."

Economic Botany.

Fourth Lecture Delivered before the University of California College of Agriculture on Thursday January 21, by Prof. C. E. BESSEY, M. S., of the Iowa College of Agriculture, Ames, Iowa.

[Reported expressly for the Press.]

The Lilies, Etc.

I call your attention, this afternoon, to several families lying between grasses and the conifers; that is, the lecture to-day may be considered as the economic botany of the remainder of the endogenous.

Liliaceae, the lily family, is of moderate size, about 1,300 species. Taking the common lily as a type, if you will group around it the members of the order, you will have a pretty good idea of it. Taking the lilies as a whole (and I apply the term now to all the members of the order), they are quite variable in their habits, from the diminutive hyacinth to the gigantic dragon trees. They are very widely distributed through the temperate zones. Certain regions seem to have particular plants which give a character to the flora represented there. In Europe, the order is mostly represented by *Allium* and *Ornithogalum*; in North America and Japan, by the lilies; in Mexico, by the yuccas; in Africa, by aloes and dragon trees, and in Australia by grass gum trees.

They are of considerable economic importance, both for food and for other uses. They furnish many medicines, most of which are irritant, drastic and purgative, while some furnish poisons. In most natural groups of plants, we find some principle running throughout all the members of the group. This may be irritant, as in the present instance; or aromatic, as in the laurels; or it may be pungent, as in the mustards. To this property, which makes plants irritant, aromatic, pungent, etc., we apply the term "principle," and understand by it that such property prevails to a greater or less extent throughout the group. We say then, of the order under consideration (the lilies), that its principle is an irritant. Among the

Food Plants.

May be mentioned the onion, *Allium cepa*, which comes from Mediterranean basin, especially from Egypt. It has been in cultivation for thousands of years, probably as long as man has lived upon the earth. Besides the onion; the leek, garlic, hives and two or three others may be mentioned. These are grown largely in Europe, and are much used, especially by the people of southern Europe. People from the Mediterranean basin seem to make use of the onion, rather than the people north of that. Asparagus is a native of the shores of southern England. As we have it here, it has a remembrance of its old habit, growing best where there is salt in the ground, or where salt is applied to it. It has been grown for about two thousand years, yet in all that time it has shown a wonderful tenacity to its original form. If you take up the collections of asparagus varieties, you will find very little difference between them after three or four years of poor culture. It is one of the most remarkable examples we have of an unmodifiable species. Within the last eight or ten years, a few varieties have been formed, but they very soon run back to the original form if neglected, showing that no true varieties have been formed.

Several of the medicines are worthy of note. The most important are the following: White hellebore, *Veratrum album*, which is native in the central parts of Europe; now cultivated throughout the continent, but most abundantly in the Alpine regions. It has been used considerably in medicine, but is less so now than formerly; and I may say right here that for a majority of the so-called medicinal plants the same remark can be made, that is, that they were formerly more used than at present, indicating that we are growing

Wiser, if not Healthier.

Squills; the product of *Scilla maritima* is also a native of the coast of the Mediterranean; its bulbous roots are gathered and broken up and in this form known as squills; which is used somewhat at the present time as a powerful, irritant medicine. One species of *Scilla*, found east of the Sierrra, produces valuable food for Indians. Here we have a good illustration again of the fact that, occasionally, closely allied species differ very greatly as to their uses; the one species, in this instance, furnishing irritant medicine, while the other furnishes nutritious food. Solomon's seal, *Polygonatum multiflorum*, is a perennial growing in England. It is used somewhat in ordinary medical practice, and is said to be in great repute for removing discolorations of the face, produced by blows. Aloes, derived from a plant in Asia—and a few others—are used somewhat.

The order is of most importance, however, on account of its ornamental species, which are many, and in some cases possess exceeding beauty and fragrance. First on the list are the tulips; *Tulipa Gesneriana*, named after an old German botanist, Gesner, who discovered it in southwestern Asia and brought it into cultivation. It was introduced in 1559; so, as you see,

upwards of 300 years have elapsed since its introduction. The wild plants are yellow, but in cultivation they have taken on all sorts of colors. Now and then we have a reversion to the original form. If you take up our best tulips you will find sometimes a specimen which has reverted exactly to the old form which it had three hundred years ago. As an interesting illustration of the whims of trade, the tulip mania in Holland in the last century may be mentioned as one of the most peculiar. The people became greatly excited over tulip bulbs. At that time a mania seemed to seize upon them and business was materially affected by it. The principal dealings in stock were in the stock of the tulip bulbs. They had issued scrip which represented the stock of these bulbs, and this scrip representing bulbs, was bought and sold with all the eagerness of modern stock dealers. Consolidated Virginia stock at its highest fell far below the almost

Fabulous Quotations

Of tulip stock. Single bulbs, in some cases, represented from two to three thousand dollars. Possibly there may have been a corner on bulbs when the quotations ran so high. Holland is now, as you well know, the great tulip region, and from that country we still obtain our best bulbs and probably the great interest in tulips, during this mania contributed not a little to the high development which they have attained in that country.

The lilies proper embrace many species; all belonging to the genus *Lilium*. The more important are the white lily, *L. candidum*, from Persia, and the orange lily, *L. bulbiferum*, from Europe; the martagon lily, *L. martagon*, from Europe; the red lily, from Palestine; the tiger lily from China; the Japan lily, from Japan; and most magnificent of all, the golden lily, *L. auratum*, from Japan. This last one, produced within the last few years, a great furor in the East when first introduced. Enormous prices were paid for the bulbs, of course nothing like the prices paid for the tulips in the tulip mania just spoken of, but as much as \$50 were paid in some cases. The tuberose, *Polianthes tuberosus*, is one of the greatest favorites and deservedly so, is supposed to have been first found in tropical America and is much esteemed on account of its delightful odor. The hyacinth, *Hyacinthus orientalis*, was found first growing in Syria. It was originally a blue flower but it is now of all colors. It is very largely grown in Holland and from that country we obtain our best bulbs. The red hot poker plant, a native of the Cape of Good Hope, introduced about 200 years ago, is, as I see, quite a favorite with the people of California. Nearly every garden has its plants of this species. Its winter blooming qualities render it a very desirable plant for growing.

The dragon tree, a native of the west coast of Africa, is now cultivated extensively throughout all of the warmer parts of the globe. In its native country it is very large, growing 60 to 100 feet in height, and very thick in diameter. Here it grows as a small-sized tree, having a thick stem, with a bunch of grass-green leaves at the top. Many may be seen in the city of San Francisco and also in the streets of Oakland. The largest one on record grew upon the island of Tenerife. It was 16 feet in diameter and was supposed at the time of its overthrow, in 1867, to be

The Oldest Tree on the Earth.

Its age, as estimated by careful observers, was placed at from five to six thousand years.

Among other ornamental plants may be mentioned the crown imperial, with its circle of golden, bell-like flowers; the *agapanthus*, with its wands of pale blue flowers, which have earned for it the popular name of love flower; the sharp needled yuccas, of Mexico; the grass gum trees of Australia; the strange, leafless, thorny butcher's broom, (*Ruscus*) of Europe, and the delicate climber, the smilax of our windows. All these must be passed by, however, with a hundred others found in our grounds and conservatories. A volume might be devoted to them and still their uses and beauties would not all be described: much less then can I hope to do them justice in a part of a short lecture. The words of one who loved the flowers of Syria come now to our minds with fuller force, "Consider the lilies of the field."

The Pine-Apple Family.

This constitutes the order *Bromeliaceae*, which is confined to tropical America. It contains about two hundred species.

One of the plants is the long moss which grows very largely on the trees in the southern portion of the Eastern United States, and which is used for stuffing cushions, mattresses, and for other purposes.

The pine-apple, *Bromelia ananas*, is a native of Brazil, introduced nearly three hundred years ago into general culture. It is a spreading plant with more or less lily-like leaves; that is, the leaves rise from a center near the ground and spread out. From the center starts up a flower stem. These flowers usually prove abortive. The cluster changes to a form very much like that of the pine cone. Examining one carefully, you will find the remains of the old flowers which have consolidated considerably with one another. They seem to take very kindly to culture under glass.

Whether they are grown out of doors here I do not know. They are grown under glass as far north as Chicago very extensively.

The Banana

Belongs to a closely allied family. This family is a very small one, containing only thirty species, all natives of the tropics. In growing, they have the appearance of palms. View a

banana grove at a little distance and it will remind you very much of the palms. The leaves are long and spreading, and grow upon an elongated, strong stem. In fact, they may be considered as the plants uniting the lilies with the proper palms. The banana itself is called *Musa sapientum*. There is some confusion still amongst botanists as to whether plantains differ from the banana or not. They seem to be about the same as far as the specimens are concerned. Botanists have not really been able to distinguish between them. It is more than likely that they are but varieties of the same species. The difficulty arises from the fact that the plantains

one or two feet. These great, board-like leaves, are taken and used as coverings for their houses. So that, although a very little family, it is for certain regions a very important one.

The Orchids.

See Fig. 2. This family is an important one, embracing three thousand species at least. In all probability there are more in it, but these are not all known as yet. They are of various habits, of wide distribution in moist regions. All the orchids, you will recollect, as being lovers of moist localities. In the north, they are found growing in bogs and wet places. As



Fig. 2. An Orchid (*Lelia*).—From a Specimen in Dr. Gray's Conservatory.

and bananas were cultivated for ages before botanists found them; and it is now impossible to say whether they were originally distinct or not. This is continually coming up before us in all cases of plants long under cultivation. The fruits are borne on a central spike, which grows from an enormous bud.

The flowers are about an inch and a half

you go south, you will find them in the moist forests, on the trees, as epiphytes. They are of very little economic value.

The Vanilla.

Vanilla planifolia is of vine-like habits, and is a native of the West Indies and of Central America. It grows inconspicuous flowers, which produce the long pod from which we get the extract we call vanilla. This product, vanilla, when pure, is said to be the most costly vegetable product we have. It sells at enormous prices. It is very frequently adulterated, as is commonly the case with high-priced products. The chemists, too, have been able to imitate vanilla so closely that their article is frequently used as a substitute for the genuine. When first carried from Central America to India, to be there grown, it was found that while it grew well and produced flowers, it would not produce fruit. This was, for many years, a puzzling thing to the growers; but after a while it was discovered that in Central America the flowers were fertilized through the agency of a certain insect, and that in carrying the vanilla plant to India, this insect had not been taken along with it. When, however, the insect was taken to India, the vanilla there grown became fertile and produced fruit. The history of this plant may teach us, that what now seems to many merely a curious investigation—I refer to the relation existing between insects and plants—may turn out to be of great practical importance. Aside from the vanilla, orchids are chiefly interesting as ornamental plants and as botanical curiosities.

The Palm Family.

For the inhabitants of certain portions of the torrid zone, is just as important to them as the grasses are to the inhabitants of the temperate regions. Now, we here get certain ideas of the relations existing between man and the vegetable kingdom. There are a thousand species, some of which rise to a very great height, and their usual habit you are very well acquainted with. They grow with a tall, cylindrical stem, with a great tuft of leaves at the top. In their growth, many of the palms remain stemless for a long time. They first grow a great tuft of leaves for a great many years from an underground stem. This tuft grows larger and larger, and a great, stout stem, when it is large enough, shoots up. They seem to have a beautiful and almost divine loftiness. After they have gone up a certain height, they appear to have fulfilled their mission, and die.

The double coconut (see Fig. 3), found in the islands of the Indian ocean, grows to be about a hundred feet high, with a stem from one and a half to two feet in diameter. It bears nuts in great abundance, usually from eight to nine or ten in a bunch, in this way: each nut will weigh from thirty to forty pounds, so that there is a bunch weighing from three to four hundred pounds. A very remarkable thing is that they are

Ten Years in Their Ripening.

It seems strange here where we are accustomed to see fruits ripen in one year, or less, to think of a fruit requiring ten long years for its ripening process. The natives use coconuts in various ways, utilizing the stems, trunks and leaves of the trees, as well as the



Fig. 3. The Coccoa-Nut Palm.

long. The bud goes on growing constantly, and the fruits begin forming below, so you may have a bud at the top, and fruits growing at the bottom.

This banana is one of the most productive of all plants. The statement of the books is that where thirty-three pounds of wheat can be grown, upon that area

4,400 Pounds

Of bananas could be grown. You know from your own experience that bananas are very nourishing. They will go, perhaps, fifteen or twenty times as far as the wheat grown from the same area. In countries where they are grown readily, the inhabitants subsist almost entirely upon them.

Not only do they obtain food from them, but they make use of these enormous leaves, ten or fifteen feet in length, and having a breadth of

nuts. The nuts themselves, by the time they ripen are entirely inedible. The coconut proper is a native of tropical Africa, India, Malay and all the tropical islands of the Indian and Pacific oceans. It is generally cultivated in all the islands of the tropical regions. The trees are from fifty to one hundred and fifty feet high. It produces fruit in bunches of from ten to twenty each. The tree furnishes almost everything the inhabitants need. They have not very many wants. From it they get food, domestic utensils, materials for building, wine and sugar. From its principal fiber they manufacture ropes, matting, brushes and brooms. The stem yields very valuable lumber. So it will be seen, the tree is of very great importance to the people.

The sago palm, *Sagus laevis*, is found in Siam and the Indian archipelago, and grows from thirty to fifty feet high and six to twelve inches in diameter. The tree is cut and the trunk is split, the pith is then taken out, thrown into water, and upon beating it a starchy matter falls to the bottom; this is the sago known in commerce, and is used very largely as an article of food. A student says: "Then they have to kill the tree to get this." Professor: "Yes. They have to cut it down and of course, it results in the destruction of the tree."

Rattan, *Calamus rotang*, and other allied species, natives of India and the Malay islands, produce the rattan, so largely used in the manufacture of chairs and other furniture. These are slender-stemmed palms, often growing to a length of from 150 to 200 feet, and climbing by their leaves—which have retrorse prickles upon them—over high trees and rocks.

There are a great many other palms which we have not time to notice. We must pass by with but a mention, the date palm of the deserts of Africa and Western Asia; the wax palm, of South America, from whose wax, holy candles are made to be used in the cathedrals of New Granada; the ivory palm, of tropical America, whose nuts become as hard as ivory, for which they are largely substituted; the climbing palms, of New Granada, whose long, tough stems are there twisted into cables and used in making suspension bridges; the cabbage palm, of the West Indies, whose young unexpanded leaves furnish a succulent food not very unlike the cabbage; the betel palm, of Cochin China, which produces the far-famed betel-nut, so largely used by the inhabitants of the Indian ocean, in the way that more civilized people use tobacco; and the various palms which produce "toddy," which may be considered to be the whisky of the palm countries. You see then that this family of the palms, while not strictly of so great interest to us, is a most important one for the inhabitants of the warmer regions of the globe.

Best Varieties of Fruits.

Fruit growers have long been convinced of the necessity of each great horticultural district selecting for itself a list of fruits. The scale of excellence must be varied according to the variations in climate and soil. Much practical good has resulted from the discussions by local horticultural societies and clubs, as to what are the best varieties of fruits to be grown by them, without regard to the preferences of other districts. All these preferences must, of course, succumb to the demands of the market; but, if the great mass of consumers, to whom this market must in its turn succumb, obtain a good apple, pear, peach, etc., they care but little what the varieties are, for what is their favorite in one place will cease to be so when they purchase elsewhere, and find that here it is excelled by what was only secondary in the former market.

What principally concerns the fruit growers of California at present, is the best varieties for drying, and as the Alden process is evidently destined to be our main reliance, we have thought it advisable to inform our readers of the varieties that have proved most satisfactory in this drying process. Mr. C. T. Settle, President of the Alden Drying Company, San Jose, kindly furnishes us with the following list of fruits that have proven especially suited to drying, many of them being good eating varieties.

Apples—Skinner's Seedling, Gravenstein, Smith's Cider, Fall Pippin, Yellow Bellflower.

Pears—Flemish Beauty (superior), Swan's Orange, Glout Moreau. Bartlett's are also good for drying but are not so easily managed (pared) by machinery.

Plums—Jefferson, Washington, Ickworth's Imperatrice, Columbia, Bradshaw, Rion Claud de Bayve, and Coe's Golden Drop.

Prunes—Ellenberg stands at the head of the list for drying. Petite Prune do Agen, small sweet prune, is next in order and by some is thought to be the best. German Prunes and Gross Prune do Agen are also fine for drying, but they require pitting.

PHYLOXERA.—We have on hand and will publish in our next issue, a valuable article—"The Evolutions of the Phylloxera"—translated from the French by Mrs. J. P. Moore. This estimable lady will please accept our thanks; and while our readers are perusing this valuable contribution to our columns, they will not fail to appreciate the good nature that prompted the writer to employ her leisure time to so useful a purpose.

BREEDERS' DIRECTORY.

PURCHASERS OF STOCK WILL FIND IN THIS DIRECTORY THE NAMES OF SOME OF THE MOST RELIABLE BREEDERS. OUR RATES: Six lines or less inserted in this directory at 50 cts a line per month, payable quarterly.

CATTLE.

R. ASHBURNER, Baden Station, San Mateo Co., Cal., breeder of Short-horn cattle. Pure Bred Bulls for sale, from cows of choice milking strains.

J. BREWSTER, Galt Station, Sacramento Co., Cal., breeder of Short-Horn Cattle.

J. D. CARR, Gahilan, Monterey Co., Cal., breeder of Trotting Horses, Short-Horn Cattle, Thoroughbred Spanish Marino Sheep and Swine.

A. MAILLARD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.

W. L. OVERHISER, Stockton, San Joaquin Co., Cal., breeder of Short-Horn Cattle and Berkshire Swine.

PAGE BROTHERS, 304 Davis street, San Francisco, (or Cotate Ranch, near Petaluma, Sonoma Co.): Breeders of Short-Horns and their Grades.

STANTON & POWERS, Sacramento, Cal. Choice Jersey Heifers at reasonable rates, Address L. C. Powers, Sacramento, Cal.

MOSES WICK, Oroville, Butte Co., Cal., breeder of Short-Horn Cattle. Young bulls for sale.

SHEEP AND GOATS.

MRS. ROBERT BLACOW, Centerville, near Niles Station, Alameda Co., Cal. Pure-Blooded French Merino Sheep for sale.

THOS. BUTTERFIELD & SONS., Hollister, San Benito, Cal. Importers and breeders of Angora Goats and Sheep.

N. GILMORE, El Dorado, El Dorado Co., Cal., importer and breeder of Angora Goats.

LANDRUM & RODGERS, Watsonville, Santa Cruz County. Pure-Bred Angora Goats and Cotswold Sheep for sale.

SEVERANCE & PEET, Niles, Alameda Co., Cal., breeders of Thoroughbred Spanish Merino Sheep.

A. G. STONESIFER, Hill's Ferry, Stanislaus Co., Cal., breeder of Pure-Blooded French Merino Sheep.

L. M. SHIPPEE, Stockton, Cal. Importer and Breeder of Spanish Merino Sheep, Durham Cattle and Essex Swine.

POULTRY.

GEO. B. BAYLEY, Cor. 16th and Castro streets, Oakland, Cal. Imported Brahmas and other choice Fowls for sale.

ALBERT E. BURBANK, 43 and 44 California Market, San Francisco, importer and breeder of Fancy Fowls, Pigeons, Rabbits, etc.

M. EYRE, Napa. Bronze Turkeys, Emden Geese, Choice Fowls, Pigeons, Rabbits, Ferrets.

Mrs. L. E. McMAHAN, Dixon, Solano Co., Cal. Bronze Turkeys now ready for sale from the best imported stock; also eight varieties of choice Chickens; Eggs in season can be purchased very reasonably.

Mrs. L. J. WATKINS, Santa Clara. Premium Fowls. White Leghorns, S. S. Hamburg, Game Bantams, and Aylesbury Ducks. Also, Eggs. 21v8-3t

C. W. WILSON, San Francisco. The largest and heaviest Bronze Turkeys the world ever saw. One pair, 19 months old, over 72 pounds now. I offer for sale extra large Toms, old or young; also Eggs. Correspondence solicited. Address C. W. Wilson, P. O. Box, 1874, San Francisco.

Poultry Breeders.

J. S. BEANER,

BREEDER OF

WHITE LEGHORNS.

My fowls are from stock that took the Special Premiums at the Boston Poultry Show in 1873 and 1874. Also at Pittsburgh this year. Eggs \$3 per setting. My P. O. address is Rochester, Beaver County, Pa. Correspondence Solicited.

OAKDALE POULTRY YARDS.

SATISFACTION GUARANTEED.

Light Brahmas, Dark Brahmas, Buff Cochins, BRONZE TURKEYS, AYLESBURY AND ROUEN DUCKS.

A. A. MILLER,

Oakdale Station, Allegheny Co., Pa. Correspondence Solicited.

EDGORTH POULTRY YARDS.

R. F. SHANNON,

Breeder of

Light and Dark Brahmas, Silver Duckwing and Black Breasted Red Game Bantams. P. O. Box 588, PITTSBURGH, PA.

Light Brahmas Eggs, \$1, gold; Dark Brahmas Eggs, \$6; Bantams' Eggs, \$4. Orders received for Pigeons to be delivered in the Fall. At Pittsburgh Show, January, 1875 on 4 coops fowls and 8 coops pigeons, won 6 firsts, 2 second, 1 third and 9 specials.

C. B. ELBEN.

I make a specialty of

Fine Light Brahmas, AYLESBURY AND CALL DUCKS BLACK AFRICAN BANTAMS, &c. Send for my new Catalogue and Price List.

C. B. ELBEN, Pittsburgh, Pa.

R. H. PECK,

BREEDER AND SHIPPER OF

Fancy Poultry and Eggs, From Pure and Imported Stocks.

Having been very successful as an exhibitor, I solicit patronage. Address, with stamps, R. H. PECK, Earlville, Portage County, Ohio.

BRONZE TURKEYS.

THE HEAVIEST IN THE WORLD!

MY SPECIALTY.

I was the first man on this Coast to import and breed mammoth Bronze Turkeys. I have as progeny of my imported birds, the largest single Tom, Hen and pair or trio of Turkeys, for their age, that the world ever saw. One pair, 19 months old, now weigh over 72 pounds; Toms 40 pounds and over, Hens 20 to 30 pounds. This is not what the birds weighed six months since or what they will weigh when fattened, but what they weigh now as they run with the flock. During the coming season I propose to sell eggs for hatching from this stock; the eggs will be packed in my improved shipping box, which carries safely. Orders now received for early Spring delivery. I can spare a few extra large Toms; also, a few pair of great size. Weight guaranteed or no sale. I offer fowls and eggs from my very fine and choice collection of Brahmas, Cochins, Leghorns, Houdans, Ducks, etc. My yards contain the best strains of the above varieties. For further information apply to

C. W. WILSON,

P. O. 1874.

San Francisco.

S. H. COOK,

BREEDER OF

CHOICE LIGHT AND DARK BRAHMAS,

B. B. R. Game Bantams.

Mammoth Bronze Turkeys,

TOULOUSE, BREMEN AND AFRICAN GESE,

ROUEN AND MUSCOVY DUCKS.

Some choice Light and Dark Brahmas for sale Also, Bronze Turkeys. Address

S. H. COOK,

McDonald's, Washington Co., Pa.

Send for Price-List.

WHITE LEGHORNS.

I make these fowls a specialty, and have spared no pains in procuring stock from the finest strains in the United States, and now offer eggs for hatching at Eastern prices from the finest fowls on the Pacific coast. They are small eaters, non-setters and very hardy, and for eggs are without a rival, being almost constant layers, and are truly styled the "farmer's fowl." Eggs, \$3 per dozen, (13) or six dozen for \$15. Securely packed to carry any distance, and delivered to this express on receipt of price. Cash to accompany order and orders taken in rotation. W. J. HUNT.

Sebastopol, Sonoma county, Cal.

E. M. Hively's Poultry Yards,

YOUNGSTOWN, OHIO.

20 Varieties Land and Water Fowls,

-ALSO-

PIGEONS AND EGGS IN SEASON.

Correspondence Solicited.

T. A. WINFIELD,

Hubbard, Ohio.

Breeder of CHOICE POULTRY, BRAHMAS, COCHINS, BLACK AND RED GAMES, GAMEBANTAMS, HAMBURGS AND POLISH.

Also, Choice collection of Fancy Pigeons. Send for Price-List. Eggs for sale in season, from \$3 to \$8 currency.

J. S. HALVERSTADT & CO.,

Breeders and Shippers of

HIGH CLASS POULTRY

Embracing all

THE LEADING VARIETIES,

LEETONIA, OHIO.

Chicken Eggs, \$3; Turkey Eggs, \$5; Wild Geese Eggs, \$5. Letters of inquiry promptly answered. Descriptive Circulars and Price Lists sent on application.



LOOK!

ALBERT E. BURBANK, Importer and Breeder of Fancy Fowls, Pigeons, Rabbits, etc. Also Eggs for hatching from the finest of imported stock. Eggs and Fowls at reduced prices. Send for Price List.

ALBERT E. BURBANK, 1v8-3m 43 & 44 Cal. Market S.F.

SANBORN & BYRNES,



Mechanics' Mills, Mission Street,

Bet. First and Fremont, San Francisco. Orders from the country promptly attended to. All kinds of Stair Material furnished to order. Wood and Ivory Turners. Billiard Balls and Ten Pins, Fancy Newels and Balusters. 25v8-8m-bp

CO-OPERATIVE MARBLE WORKS.

JOHN DANIEL & CO.,

Manufacturers of and Dealers in

Monuments, Headstones, Tombs,

MANTEL PIECES, ETC.,

421 Pine street, between Montgomery and Kearny, San Francisco, 21v2-1v

Live Stock Notices.

N. GILMORE
IMPORTER
AND BREEDER

SULTAN SECOND.

Angora or Cashmere Goats of pure blood and all grades for sale in lots to suit purchasers. Location, four miles from Railroad Station, connecting with all parts of the State. For particulars, address N. Gilmore, El Dorado, El Dorado County, Cal.

GABILAN HERD

SPANISH MERINO SHEEP.

I have just purchased of Mr. George Hammond, of Vermont, three car-loads of Spanish Merino Sheep, (335 head, Ewes and Bucks) which, with others that I purchased last Fall, (also direct from Vermont) makes my band of Thoroughbred Spanish Merinos about 650 head.

I am prepared to sell both Bucks and Ewes, of Pure Blooded Spanish Merinos—as good as can be had in the World—so says Mr. Hammond. Parties interested will please give me a call. I am ten miles from Salinas City, Gabilan P. O., Monterey county.

J. D. CARR.

N. B.—I have also Good Graded Bucks for sale, and can dispose of some Good Graded Ewes. J. D. C.

REEDVILLE HERD.

PROPRIETOR,

S. G. REED. - - Portland, Oregon.

I have for sale, Shorthorns of the most approved and fashionable families; among them are a few one year old Bulls of great merit, the produce of Cows imported direct from England, and sired by the renowned Mantelini bull, GOVERNOR GENERAL, 10,156, A. H. B., Vol. X, p 175. Also on hand,

AYRSHIRE CATTLE,

COTSWOLD AND

LEICESTER SHEEP,

AND BERKSHIRE PIGS.

of the highest standard. For particulars apply to

S. G. REED, Portland, Oregon,

Or WM. WATSON, Hillsboro, Oregon.

1v9-9w-1f.

12 Short-Horn Bulls,



fat and sleek, thoroughbred, just from Kentucky, at SAXE'S Stables, 35 Ritch Street, between Folsom and Harrison, two blocks from Grand Hotel. Inquire at SAXE'S Stables, or Room 32 Rmss House. 3v9-3m

JACKS FOR SALE.

Two fine Jacks, one four and the other five years old, large and likely sired by old Samson, and of the best Kentucky Jinnets; the best stock of the kind in the State. Address B. C. EPPERSEN, 2y9-2m Bear Valley, Colusa County, Cal.

ERNEST L. RANSOME,

Artificial Stone Manufacturer,

No. 10 Bush Street, San Francisco,

Office Hours 1 to 2 Daily.

GRINDSTONES at 3, 2½ and 1 cent per pound according to quality. In ordering state for what purpose the stone is needed.

"I have used one of your grindstones for some time, and it is the best I ever had." F. J. CUREY, November 20, 1874. Prop. S. F. Boiler Works.

EMERY STONES, VASES AND FOUNTAINS, GRAVESTONES AND CEMETERY WORK. STONE DRESSINGS GENERALLY, NATURAL STONE hardened and pressed, SILICATE OF SODA for Soap Makers and Laundrymen, &c.

PORTLAND CEMENT for Sale in Lots to Suit. Send for Price-List. eow.hp

PUMPS SLUTHOUR PUMPS

Are sold 50 per cent. under any other in the market, considering the amount of water obtained for the power applied. They have now been fully tested for IRRIGATION, and entire satisfaction is guaranteed. Call and see them, or send for Circulars.

J. M. KEELER & CO., Agents,

306 California Street, San Francisco.

For the very best Photographs go to BRADLEY & RULOFSON'S GALLERY, with an "Elevator," 429 Montgomery street, San Francisco. 2v7-6m

C. C. Burr & Co's



Mustard

50 per cent. Better than any Imported Mustard.

Ask Your Grocer for it.

9v5-eow.hp.

POISON! POISON!

WAKELEE'S PATENTED

Granulated Squirrel Exterminator.

A NEW AND MOST DESTRUCTIVE POISON FOR THE WORST PEST OF CALIFORNIA.

For years the farmers of the Pacific Coast have been spending money in experimenting to find a safe, cheap and efficient way of ridding their grain fields of their worst enemy, the squirrel, which destroy Millions of Dollars' worth of grain every year; and unless a strong and combined effort is made to kill them off, they will become more numerous every year.

Wakelee's Granulated Squirrel Exterminator

Is just the thing the farmers of California have been looking for. It is SURE DEATH. One or two grains of it will kill a Squirrel so quick that if it is five feet from his hole it dies before it gets there. The Poison is put up in granular form, and easily handled; in one pound tins at \$1 per pound. It goes a great way, as 10 to 15 grains of it are sufficient to place at each hole. Also successfully used for killing Gophers and Rats. It has been thoroughly tested in different parts of the country, and gave universal satisfaction. It is kept and sold by druggists and dealers generally through the country. The following are some of my testimonials, viz:

SANTA CLARA, April 20th, 1874.

H. P. WAKELEE, Esq.—Your Squirrel Exterminator was used according to your directions, on my Quito Farm with excellent success, and in my estimation is just the thing the farmers want to kill their Squirrels.

J. R. ARQUELLO.

SAN LEANRO, Cal., April 3d, 1874.

H. P. WAKELEE, Esq.—Dear Sir: I have given your Squirrel Exterminator a fair trial and find it to be an economical and very destructive preparation, and I can safely recommend it to our farmers. Yours,

J. M. ESTUDILLO.

DOUGHERTY STATION, Alameda Co., Cal. MR. H. P. WAKELEE, San Francisco: I have used your Squirrel Poison and found it to be just what you claim for it. It is sure death. Yours, C. M. DOUGHERTY.

H. P. WAKELEE, Druggist, Cor. Montgomery and Bush streets, S. F.

For Bleaching or Washing in Cold or Warm Water.

FALKINBURGH & CO'S

GRANGER SOAP

HAS NO EQUAL.

Don't fail to give it a trial, and be assured of a saving of money, time and labor. It speaks for itself. Warranted to accomplish more and do greater execution than any other soap. It is pressed, wrapped and perfumed.

ONCE USED, ALWAYS USED.

Sold by the principal Grocers throughout the country. Manufactured by

FALKINBURGH & CO.,

Oregon St., below Front, bet. Washington and Jackson, San Francisco, Cal. 4v9-10p

J. M. NEVILLE.

G. H. BRYANT

NEVILLE & CO'S FACTORY

113 Clay and 114 Commercial Sts.,

SAN FRANCISCO.

BAGS of All Kinds,

TENTS, All Sizes and Descriptions.

HOSE for Hydraulic Use.

CANVAS, All Numbers.

TWINE for Sewing, Etc.

Brittan, Holbrook & Co., Importers of Stoves and Metals, Tinners' Goods, Tools and Machines, 111 and 113 California, 17 and 19 Davis streets, San Francisco, and 178 J street, Sacramento

\$5 to \$20 Per Day at home. Terms free. Address G. STINSON & Co., Portland, Me.

Geo. W. Chapin, Real Estate Agent, 434 Montgomery St., San Francisco, buys and sells Ranches in all parts of the State. City Real Estate exchanged for Country Property. MONEY LOANED. Post Office Box 119

Lands and Homes for Sale.

CENTINELA COLONY

LOS ANGELES CO. CAL.

SIX MILES WEST OF LOS ANGELES, CAL.

The unparalleled success of the

LOMPOC COLONY,

SANTA BARBARA COUNTY.

Has induced the "Centinela Land Company of Los Angeles" to subdivide and place in market for sale and settlement, under the direction and management of the "California Immigrant Union," of San Francisco, the "Centinela and Sausal Redondo" Ranches, containing Twenty-five Thousand Acres of Beautiful Valley Land, located seven miles west of the city of Los Angeles, and extending to and fronting on the Pacific Ocean. There is now on the tract an orchard of about three hundred acres, containing Orange, Lemon, Lime, Fig, Walnut, Almond and Olive trees, and a nursery of young Orange and Lime Trees. Some of the Orange and Lime trees are in bearing. The tract will be subdivided in twenty, forty, eighty, one hundred and sixty-acre farms, and sold upon easy terms and long credits.

Auction Sale of Town Lots

—AND—

5, 10, 20 and 40 ACRE FARMS,

WILL COMMENCE ON

Monday, Feb. 15, 1875, at 12 o'clock, M.

And continue Five Days. The sale will take place on the Rancho. Parties desiring to purchase should be on the ground a few days prior to the sale, in order to examine the property. Title—United States patent.

SITUATION.

"Centinela," with the addition of the "Sausal Redondo," contains 25,000 acres. The boundary of the Rancho commences three and a half miles from the city limits of Los Angeles, and extends to the Pacific Ocean.

TOPOGRAPHY.

"Centinela" is made up of one broad, level, fertile valley, of over twenty thousand acres, and beautiful fertile rolling hills near the ocean.

SOIL.

The soil is an exceedingly fertile loam, and is, without exception, the richest and most productive in Southern California. Its vicinity to the ocean insures a crop without irrigation. Excellent wheat has been raised for the last two years upon the hills adjoining the ocean. This wheat field contains 1,000 acres, and covers the lightest soil upon the Rancho. There is no alkali or barren land.

SEMI-TROPICAL FRUITS.

There are a few bearing orange and lime trees upon the Centinela, and the fruit they produce is of the largest and finest quality. There is an orchard containing 6,000 orange trees three years old, and 1,700 almond, lime and lemon trees. The almond, lime and lemon trees will bear fruit in 1875. The orange trees will bear in five years. There are 7,000 three-year-old orange trees in the nursery near the orchard. Fig, pepper and gum trees grow without irrigation. The entire orchard has been taken care of by three men with six horses. The orchard will be kept undivided by the company, to save the expense of each shareholder having a few trees to take care of. The almond, lime and lemon trees will yield an immediate return. In five years each orange tree will produce \$20 per annum, or \$300 per share for those now planted. There are flowers in the garden in bloom every day in the year.

SHEEP.

A flock of about 14,000 sheep will be kept undivided, to save expense to the shareholders. The sheep will produce in increase and wool over \$2 each, yearly, over expenses. They will be grazed upon outlying and unsold lands of the company. The "No Fence" Law is in force in Los Angeles County.

CLIMATE.

The climate of the "Centinela" is without exception the finest and most equable in the world. It varies but little throughout the year. The mean temperature is about 60 degrees. The mercury falls but little below 60 in winter and rises but little above 60 in summer. You sleep under one pair of blankets and with your bed-room window open every night in the year.

AGRICULTURE.

The soil of the "Centinela" is admirably adapted for all kinds of grain, vegetables and fruit.

WATER.

The Centinela creek rises upon the Rancho and runs through the northern portion of the tract. It affords an abundance of clear spring water. The source of the Centinela creek consists of several natural artesian springs, showing that artesian water can be obtained by boring.

THE TOWN.

A square mile is laid off at an eligible point on the tract, with lots 31x135, avenue 100 feet, and streets 80 feet wide. A stream of water can be brought in so as to supply every lot with crystal, cool, sweet water. One of the forty-acre tracts is set apart for a College and Farm School, and there will be a Ten-acre Park on each of the four sides of the town, and Four Blocks in the center of the town for Public Buildings, Schools, etc. A large lot will also be set apart for each Religious Denomination, and a block given for the erection of a large hall by the different Fraternal, Grange and Temperance Societies.

FARE.

Parties desiring to visit the Rancho can take the 8:10 A. M. train of the Southern Pacific Railroad to Soledad, thence by Coast Line Stage to Los Angeles; by 4 P. M. train to Bakersfield, thence by stage to Los Angeles; or by Pacific Mail Co.'s and Goodall, Nelson & Perkins' steamships direct to Los Angeles, where conveyances can be had to go to the Rancho free of charge.

RAILROADS AND WHARF.

The Company intend building a wharf to enable Steamships from San Francisco and other places to land passengers on the tract. A narrow-gauge railroad will be built from Los Angeles to the wharf, a distance of about 12 miles. The Main Street and Agricultural Park Railway will soon be built to the park, about a mile from the tract. This railway will be extended to the tract as soon as the settlement will justify it. Lithographed maps can be had at the office in San Francisco. Apply to

W. H. MARTIN,

General Agent California Immigrant Union, 534 California street, between Montgomery and Kearny streets, San Francisco, to TEMPLE & WORKMAN, Bankers, or Gen. SHIELDS, Los Angeles, or O. L. ABBOTT, Corresponding Secretary State Grange Immigrant Aid Association, Santa Barbara.

P. S.—A second sale will take place on the Rancho, commencing on Monday, the 8th of March, 1875.

DURYEA'S SATIN GLOSS STARCH

AND

DURYEA'S IMPROVED CORN STARCH

Are the Best in the World.

USE IT ONCE AND YOU WILL USE NO OTHER.

For Sale by All Grocers.

FAC-SIMILES OF PRIZE MEDALS AWARDED THE



The Messrs. Duryea have succeeded in refining Starch to entire purity and developing its entire strength and clearness, an improvement that will be readily perceived in the great strength of the Starch, the superior luster that it gives, and in its reliable uniformity. Much of the so-called starch contains from one-fourth to one-third foreign matter, readily perceived by sourness, mustiness, or a golden yellow tinge, peculiar to inferior starches, a color not desirable for one's linen, but inseparable from the use of common starch. They pledge themselves to the public to give a uniformly superior article, from one-fourth to one-third stronger than any other starch in the world, and at the common market rates.

EGERTON, ALLEN & CO., Sole Agents for the Pacific Coast, San Francisco, California.

NINE FINE FARMS FOR SALE.

Near Middletown, Lake county, containing respectively 1600, 1100, 600, 300, 200, 200, 130 and 80 acres. The most of these places contain as fine land as there is in California, and the home market averages twenty per cent. higher than San Francisco. When we take into consideration the quality of the soil, certainty of crops, the market caused by the development of mines and the Mineral Springs, the climate and privileges of schools and religious society, we are satisfied that no such inducements can be offered in any other part of the State, to those desiring to purchase land.

Having examined all these places personally, we can give a minute description of each. Apply to

JOSEPH PETTIT,

or WM. GORDON, No. 215 Kearny Street, Up Stairs. Ring the Bell. 3v9-4f

FOR SALE.

HOMESTEAD AND FRUIT ORCHARD

About thirty-five miles from Stockton, containing three acres of land, a good house of eight rooms, good well, etc. Over two hundred fruit trees all in fine bearing order; such as Peach, Pear, Apricot, Apple, Plum, Figs, Oranges. A fine chance and a good market. Price, \$1,800. Title perfect. Apply to

GEO. W. CHAPIN,

434 Montgomery street, S. F., or this Office.

5,500 ACRES

Of the best portion of the old NOMELACKEE RESERVATION, in Tehama County, for sale very low; only five dollars per acre; one-third down, one-third in one year and one-third in two years, with interest at one per cent. per month. Will be sold all together or in two parcels. This is one of the finest tracts of grazing land in Northern California; is abundantly watered by numerous perpetual springs and has two miles of the Elder Creek, a clear mountain stream. Its grass never fails from drought, and is of the best quality for sheep and has no clover burr. 800 acres of level plow land; timber for posts, fuel, etc. Enquire of ALLEN WILCOX, Los Angeles, or F. B. WASHINGTON on the tract, twenty miles west of Tehama.

FOR SALE.

In the Riverside, New England and Santa Ana Colonies, in the valley of the Santa Ana river, San Bernardino county, California, twenty thousand (20,000) acres of clean, rich, level, valley land, with an abundance of water for irrigation. There is no better land in the State for the orange and all other semi-tropical fruits, and no finer climate in the world. Inquire of W. T. BAYWARD, 420 Montgomery street, San Francisco; S. C. EVANS, Fort Wayne, Indiana; C. I. HUTCHINSON, 314 California street, San Francisco; L. UPSON, General Agent, Riverside, San Bernardino county, Cal.

THE CLEETON COOP COMPANY,

Of New Haven, Conn.

Are now prepared to furnish societies and individuals with

Standard Exhibition Coops

AT REASONABLE RATES.

Correspondence Solicited.

KIMBALL CAR, CARRIAGE

—AND—

AGRICULTURAL IMPLEMENT

MANUFACTURING CO.,

Cor. Bryant and Fourth Sts., San Francisco

The CALIFORNIA TUBULAR IRON AND WOOD FRAME HARROW—two, four and six-horse Iron Harrows, \$60, \$70 and \$75. Wood Frame Harrow, \$10 less on each size than the Iron.

The Harrow has an easy seat for the Driver. The middle section rests on three wheels with wings hinged on each side.

By use of Levers the Driver in his seat can raise or lower the Harrow, regulating at will the depth of the teeth in the soil, and in the same manner fold or raise the wings from the ground so as to drive from the road to the field, saving the use of a wagon.

Our CALIFORNIA SCRAPER is also made for the ease of the Driver, enabling one person to ride, manage the team and do the work.

Is adapted for leveling and preparing the surface of the soil for irrigation. And for making roads, removing dirt from ditches, cleaning barn yards, sheep corals, etc.

The IMPROVED EAGLE HAY PRESS—Best in use on this Coast. Cheap, Economical, Powerful, and easily repaired.

Will press hales weighing from 250 to 325 pounds, using less rope than any other press.

Three men with a good team of horses will hale from 10 to 15 tons per day.

Adapted for haling wool, hides, cotton, rags or moss. Price, \$250. Weight of press, 2,500 pounds. Please send for circulars.

ARMES & DALLAM,

WHOLESALE DEALERS IN

WOOD AND WILLOW WARE

Baskets, Brushes and Twines,

Clothes Wringers,

Doty's Washing Machines,

AND

GENERAL HOUSE FURNISHING GOODS

And Manufacturers of

BROOMS, PAILS, TUBS, WASHBOARDS,

DASH,

CYLINDER,

THERMOMETER,

AND SQUARE BOX

CHURNS,

215 and 217 Sacramento St., San Francisco.

COMPTON & BINFORD, REAL ESTATE BROKERS

Employment and Intelligence Office. Horse and buggy free to see property. Offices at Compton, and at corner of Court and Spring streets, Los Angeles, Cal.

Railroads.

Chicago and Northwestern Railway.

Miles in Operation:

Illinois Division.....	486.5
Iowa ".....	432.8
Wisconsin ".....	432.8
Michigan ".....	168.7
Minnesota ".....	291.8
Dakota ".....	38.5
Total Miles.....	2,003.7

IN CONNECTION WITH THE

Central and Union Pacific Railroads,

—THIS IS THE—

PIONEER LINE

Between the Pacific Coast and the

EAST,

And was the first to connect with the great Pacific roads, and form the

OVERLAND ROUTE.

THIS LINE IS THE

Shortest Rail Line

—BETWEEN—

OMAHA and CHICAGO.

The track is of the

BEST STEEL RAIL,

And is well ballasted, and as free from dust as a road can be made; the bridges are strong and durable, and all the appointments are first-class in every respect.

The trains that run over this road are made up of elegant

New Pullman Palace Drawing Room and Sleeping Coaches,

Built Expressly for this Line,

Luxurious, well lighted and well ventilated Day Coaches, and pleasant lounging and smoking cars; all built by this company in their own shops. The cars are all equipped with the

Miller Safety Platform,

—AND—

PATENT BUFFERS AND COUPLINGS,

WESTINGHOUSE SAFETY AIR BRAKES,

And every other appliance that has been devised for the safety of passenger trains. All trains are run by telegraph, and are so regularly on time that one can safely set his watch by their arrivals or departures.

IN A WORD, THIS

Great California Line

Has the

BEST AND SMOOTHEST TRACK,

AND THE MOST

Elegant and Comfortable Equipment

Of any road in the West, and has no competitor in the country. It is eminently the favorite route with Californians traveling East, and is acknowledged by the traveling public to be the popular line for

Chicago, New York and all Eastern Cities.

Through tickets by this favorite route can be procured at all offices of the CENTRAL PACIFIC RAILROAD, and at the office of the

CHICAGO AND NORTHWESTERN RAILWAY,

208 Montgomery street.

H. P. STANWOOD, Gen. Ag't for Calif'na.

M. HUGHITT,

General Sup't.

CHICAGO.

W. H. STENNETT,

Gen. Passenger Ag't,

CHICAGO.

10v8-1am-ly

AGRICULTURAL NOTES.

BUTTE.

ENCOURAGING PROSPECT.—*Oroville Mercury*, Feb. 12: Information from the different agricultural portions of this county go to show that there will be a great deal more land cultivated this season than ever before. The early rains gave the farmers an excellent opportunity to put in a large crop. All the land beyond Biggs' and Gridley's is this year under cultivation. So too in many parts of the county that have hitherto been looked upon as too hilly and hard to produce well. It is now found that all this part of the county can be made to pay as good profits on the money invested as the black lands. Every acre of this land that can be had is now being settled up. The fruit and raisin crop is attracting attention, and men are now working to advantage, and, as we said before, the return is all that can be asked for.

The Chico *Enterprise*, of same date, says: From Mr. Baylies, of Jacinto, we learn that 36,000 acres of land are under cultivation on the Glenn farm this season, as follows: By Baylies, 7,500 acres; by Gumpston, 7,500 acres; by Hoag, 8,000; and by Dr. Glenn, 13,000 acres. Baylies also has in wheat, independent of the above, 6,000 acres on the Bullard lands; Gumpston, 2,000 on his home farm; and Hoag, 2,200 on his home farm. For putting in the crops there have been employed on this farm, 1,000 head of mules and 300 men. Summer-fallowing is being pushed forward rapidly and crops are looking fine. Summer-fallow grain is too far advanced, and stock will be turned in to keep it down.

Present appearances indicate a bountiful yield of fruit the coming season. The vineyards on Rancho Chico are now undergoing the pruning process, and the Superintendent reports a flattering prospect.

CONTRA COSTA.

SHERMAN ISLAND.—*Antioch Ledger*, Feb. 13: The water still remains on Sherman island, though slowly receding. It is thought that not more than one hundred acres of grain will be saved. On the upper end, or east of the slough, all is safe. At Emmaton temporary embankments have been thrown up to confine the water to its present limits. The overflow has occasioned serious loss, not only to those immediately interested, but to the State, as nearly every acre was sown in grain, and the prospects of a large crop before the break were excellent. There is now little or no hope that the water will recede in time to grow a crop of grain the present season. Within the past six days the wheat has grown wonderfully. The days are warm and nights dewy. In many fields the grain stands eight and ten inches high; is strong, of healthy color, and at present there is no lack of moisture. As usual, nearly every acre from Bay Point to Point of Timber, a distance of twenty-five miles, is sown with wheat. A few spring showers and absence of north wind will make a crop that will cause farmers to rejoice.

EL DORADO.

ALFALFA—*Placerville Republican* February 11: Experiments made in this county with alfalfa, demonstrates its successful culture on naturally moist land, or land that can be irrigated at pleasure, and much attention will hereafter be given to its production. With even ten or fifteen acres in alfalfa, and as much more in choice fruit trees and vines any man of ordinary ability and energy can consider himself well fixed for this world. Horses, cattle, sheep, hogs and fowls fatten upon it; and, as an exchange suggests, the man who has 50 or 100 acres of alfalfa, well rooted, is in a more prosperous and certain condition than if he had a gold mine or promising placer.

KERN.

FARMING IN KERN COUNTY.—*Kern County Courier* Feb 11: Mr. W. B. Carr, whom we must now number among the most extensive farmers and enterprising citizens of Kern county, arrived here on Saturday of last week. Since that time he has been engaged in working out his favorite idea of a cheap thorough and economical system of irrigation. He is very decided in the expression of the opinion that this is the most favored portion of the State, both as to soil, climate, general surroundings, and above all, a good market. He thinks the southern part of Inyo, and a vast extent of country east of us, is the best mining region in the world and that it must always supply an insatiable and high-priced market for everything this prolific soil is capable of producing and that farming lands here are destined to attain to values unprecedented in other parts of the State. He expects this season to grow sixteen hundred acres of grain and alfalfa, most of which is in now and growing finely and in condition to irrigate with facility if necessary. The heaviest drawback he meets with at present is the high rates of freight on the railroad. If the charges were a little more reasonable, he would do much more in the way of fencing and building. This is a point, however, in their business management, that he thinks the company will find themselves to correct at no distant day.

TOBACCO IN KERN CO., SOUTHERN CALIFORNIA.—*Bakersfield*, February 11: Mr. Young, who has been engaged for several years raising tobacco, in Connecticut and more recently at Gilroy, has taken a piece of land on the farm of Julius Chester, and proposes to plant five acres on shares the present season. He spent some time in Visalia in the examination of the country there, but was there advised that undoubtedly the most suitable soil could be

found near Bakersfield. Some very rare Persian tobacco seed has already been sown, and the plants will be ready in April for the field. This is the first attempt by an experienced man to produce tobacco here. It was irregularly planted and allowed to grow without care, by Mr. Shirley, some years ago, and found to thrive remarkably well. Mr. Young is of the opinion that the soil and climate of this part of the valley is especially adapted to its production. He proposes to make the experiment thorough, and in the meantime prepare for extensive planting the next season.

MARIN.

THE DAIRIES.—*Marin county Journal*, Feb. 4: Advice reaches us from all parts of the county that the dairy interest is remarkably prosperous. In San Antonio, the milkers are making a pound and a quarter of butter to the cow, which is the most they ever expect to do in the height of the season, or four months later than the present time. Mr. McBrown tells us that he has never seen a season so favorable to the butter interests of the county as this, though he has been here twenty-two years.

TOBACCO.—A tobacco raiser tells us that there is a good deal of land in Marin county, splendidly adapted to raising the Indian weed, and that there are two or three hundred acres in Messrs. Sweetser and DeLong's place that would grow as fine crops of tobacco as any land in the Union. Some of the Gilroy company's fields have yielded eleven clippings during the past year.

MONTEREY.

FAIR WEATHER.—*Hollister Enterprise*, Feb. 13: This section of the country is now, and has been for several days, enjoying unusually fine weather. A very little foggy and damp of mornings, and warm, balmy, bright and beautiful during the day. Grain and vegetation of every description peculiar to the soil, are growing with unprecedented rapidity.

NAPA.

A NEW FRUIT DRYER FOR NAPA.—*Napa Reporter*, Feb. 13: John Bachelor, a gentleman just from the East, has purchased a corner lot in East Napa, on which he proposes to put a fruit drying establishment. His process is one of his own invention, and he claims it to be superior to that of the Alden process. He has a full set of machinery for the establishment, some of which is already here, and the other on the way, and which he expects to arrive in two weeks.

PEAS IN BLOOM.—What would Eastern people think were they taken suddenly from their ice-locked surroundings and dropped in a Napa valley garden where the peach and almond trees were in full bloom, and the peas in blossom?

THE ALMOND CROP.—The almond crop of Napa county promises this year to be more abundant than ever, and if no frosts interfere, will doubtless surpass any yield of this fruit heretofore gathered in the valley.

PLACER.

ALFALFA.—*Placer Herald*, Feb. 13: We understand that the farmers in this part of the country, almost to a man, have been suddenly taken with what our informant calls the "alfalfa fever." A great many are now sowing or preparing to sow alfalfa. We are glad to hear this, for we verily believe that a small patch of alfalfa on each farm prove as remunerative in its place as any other crop that can be sown, and what is good for the farmers is good for all.

THE FRUIT INTEREST.—We were informed a few days ago by a gentleman who for many years has been in the fruit and nursery business in this country, and who is now supplying trees for planting to those who desire them, that there are more trees being planted in this part of the county this winter than any year in its history. He says that a person who is not in the business would be astonished at the unusual demand for trees of all varieties in this part of the county. Farmers are evidently becoming convinced of the very important fact that this is a fruit country and that on our fruit productions must depend the solid and lasting prosperity of this foothill country. By planting extensively now, this section will soon support a few extensive fruit drying establishments, and then, most undoubtedly, fruit raising will show fine profits.

SONOMA.

SANTA ROSA VALLEY.—*Sonoma Democrat*, Feb. 13: We took an extended drive through the best farming portion of Santa Rosa valley. All agree, and the appearance of the growing grain justifies the belief, that the largest wheat crop ever raised in the county will be harvested this year. The season has been especially favorable for seeding. The rainfall in November was over nine inches. This left the land in good order. For the following six weeks, including the month of December and first two weeks in January, less than one inch of rain fell. This gave an opportunity to seed the land in season. The rainfall of the latter part of January followed, and we have since had beautiful weather. More attention will be paid to forage crops than ever before—corn, oats, barley and hay.

SOLANO.

CROP PROSPECTS.—The *Suisun Republican* of this week says the crops in all parts of the county are represented to be in splendid condition, and nothing but a north wind of more than average duration and evaporating quality, it is thought, can prevent the harvesting of an unusually abundant yield of cereals.

STANISLAUS.

CROP PROSPECTS.—*Stanislaus News*, Feb. 11: Never, in the history of our county, has the

outlook been more favorable for a good grain crop than at present. Our farmers, as a rule, completed their sowing at least a month earlier than usual. In this respect the young grain has that much more time to perfect its growth before being cut short by the early summer's heat and drouth. More than the average acreage is sown, and the cultivation, as a rule, is much better than usual. From these causes our people are generally wearing happy faces. From every portion of the county most cheering reports reach us of the crop prospects. If the season continues as favorable to mid spring as it has begun, Stanislaus will this year astonish the world as a producer of breadstuffs.

FROM GRAYSON.—Since the abatement of the rains everything in the vegetation line seems to have an upward magical tendency, and the mother earth seems now to have a high virent appearance. The sowing of wheat and other kinds of grain since the rains still continues, and there is yet many an acre to be sown if the weather proves favorable. Boats are now navigating the San Joaquin to points far above here, and carrying what freight the various warehouses now contain to San Francisco and other points.

SUTTER.

WELCOME SPRING.—*Sutter Banner*, Feb. 13: We have now warm and growing weather. The grass and grain are making a rapid growth, being now from one to six inches in height. The grain looks strong and healthy. Wild flowers are now quite plenty. The almond trees are in bloom, and peach trees are swelling their buds ready to burst into bloom. The gardener has his hot beds already prepared and planted with sweet potatoes, tomatoes, cabbages and other plants. All nature is lovely, and prosperity seems to smile upon all. Another glorious year has opened to California, even more propitious than the last.

TULARE.

TULE RIVER.—A correspondent of the *Tulare Times* writes from Tule river, Feb. 8th, as follows: Since the flood everything moves and has its being. In places on Tule river the water was higher than in the flood of 1862. Many farmers are still busily engaged in putting in grain, and will be for some time yet. All anticipate good crops the coming season. Many farmers south of Tule river are expecting to commence taking up stock in a short time, as the new grain will be high enough to entice them so they will intrude, and the owners of the grain will be compelled to corral them or lose their crop. Stock men will save trouble by attending to what they have running at large. Sheep men are all very busily engaged with their flocks which are lambing, and many have been losing a considerable number of grown sheep, as they were very poor when they commenced lambing and there were no food for them to live on. Feed is growing but very little, as the nights are so cold, and the days are not sufficiently warm to overcome the backsets that it gets of nights. A great many new comers and some old settlers (who put out orchards every season) are planting out trees and vines, and beautifying their place with ornamental trees and shrubbery, as though they were making permanent homes. If we judge the future by the past, Tulare will be one of the best counties in the State. Since it has been known abroad that in many localities in this county two crops can be raised in one season, good, industrious men, with families, are coming here to make permanent homes.

GRANGEVILLE.—*Visalia Delta*, Feb. 11: This thriving place is improving very fast. The din of the anvil, the clatter of wagon wheels, and the merry whistle of the plow-boy, commingled with the matin lay of the field lark and the shimmer and glow of all nature around them, remind one of some of the agricultural sections of the East. School houses are found on almost every section of land, and the neat little cottages of the aggressive settlers flock the verdant landscape in all directions. At any time, while riding along the road, from ten to fifteen gang plows can be seen filing across the plain, drawn by two, four and six horses. Fields that extend as far as the eye can reach are assuming a robe of green; and when the weary farmer betakes himself home from a hard day's work he can rest with a feeling of security from the ravages of stock, although he hasn't a foot of fencing on his place.

IN BLOOM.—Several varieties of shrubs and trees, such as the almond, and the japonica, pear and quince, are putting into bloom. Jack-frost may yet teach them that they are occupying debatable ground.

THE BLACK PEPPER.—The two specimens of the black pepper tree, planted in the court house yard a year ago, with the view of testing its adaptability to this climate, made a rapid growth last summer, but the present winter has been unusually heavy, and the frost has killed most of the leaves and the tips of the twigs. Enough is determined, however, to show that black pepper can be produced here in any desired amount, and that it is capable of becoming an article of export. The tree is an evergreen, and has a strong resemblance to some of the varieties of acacia.

THE SAN LORENZO RAILROAD COMPANY, says the *Santa Cruz Sentinel*, are pushing things right along. They commenced laying rails on Thursday, of last week.

WOODWARD'S GARDENS embraces an Aquarium, Museum, Art Gallery, Conservatories, Tropical Houses, Menagerie, Seal Ponds and Skating Rink.

PATENTS & INVENTIONS.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

(FROM OFFICIAL REPORTS FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.)

By Special Dispatch, Dated Washington, D. C., Feb. 16, 1875.

FOR WEEK ENDING FEB. 2, 1875.

SHOE AND GAITER.—George Bryant, S. F., Cal.

SLATE WASHER.—Levi L. Lyman and Edward A. Boell, S. F., Cal.

SOFA BEDSTEAD.—John K. Underhill, Stanislaus Co., Cal.

SEWING MACHINE FOR SEWING BAGS, ETC.—Howard P. Garland and Andrew J. Gove, S. F., Cal.

CHAIN PROPELLER.—DeWitt C. Johnson, Redding, Cal.

APPARATUS FOR GENERATING GAS.—John H. Rawlings and Lambert Irelan, Watsonville, Cal.

COMBINED FLUTING AND SADD IRON.—Charles R. Rand, S. F., Cal.

FASTENING FOR METING RAILS OF SASHES.—Chester J. Snow, S. F., Cal.

ROCK-DRILLING MACHINE.—George Atkinson, S. F., Cal.

GRAIN SEPARATOR.—Thomas J. Hnbell, Yontville, Cal.

WATER METER.—Nsthanial W. Knowlton, Nevada City, Cal.

JOINT FOR SHEET METAL PIPES.—Jos. Moore, S. F., Cal.

TRADE MARKS.

FOR TEA.—Robert Cunningham, S. F., Cal.

FOR TEAS.—Williams, Blanchard & Co., S. F., Cal.

FOR TEAS.—Williams, Blanchard & Co., S. F., Cal.

FOR CIGARS AND TOBACCO.—The Consolidated Tobacco Co., Gilroy, Cal.

—The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue. NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & CO., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with effect security and in the shortest time possible.

NEW FRUITS, TREES AND VINES.—Albert Montpelier, of the Grangers' Bank, has just received over 600 fruit trees and vines (two-year grafts), from Orleans and Lyons, France. He transplants them at his homestead, near Fruitvale, Alameda county. They were seven weeks on the way, and arrived in perfect condition. Among the lot are 200 Congress pears, a French seedling from the Bartlett and Duchess pears, crossed by Morel Prest, of the Horticultural Society, of Lyons. They have notable reputation for size, early ripening, and the fine flavor of the Bartlett. Mr. Montpelier has purchased 600 of Aughinbaugh early California blackberry plants. The original stock of this plant was taken from Mr. M's present homestead, which is located in the thermal (or frostless) belt in the foot-hills, near Brooklyn, after being improved by Mr. A's culture, it goes back to its old home.

LOOK A LITTLE CLOSER.—"O. H.," of Walla Walla, complains that his question for information as to how much water will discharge through a certain size pipe was not properly attended to. The question was duly answered in the *RURAL PRESS*, January 9th, page 24, second column. The question and answer are as follows:

How much water will discharge through a pipe 4½-inch caliber (on horse) 1½ miles long, with 70 feet fall, nearly a gradual descent, fed by a reservoir 5 feet deep, (or five feet measurement at head?)

It will discharge 160 gallons per minute.

DEFERRED.—We had provided as usual matter for our horticultural column—the intended contents being an able article on "The Future of California Fruit," by G. C. Pearson—but were compelled to defer its publication for one week, in order to obtain space for the lecture on Economic Botany and the accompanying illustrations. Fortunately the circumstances are such that horticulture receives no slight in this case; for the ground is surrendered to matters which, if not strictly horticultural, partake largely of that character.

ANOTHER BRIDGE AT ST. LOUIS.—So severe are the exactions for toll over the bridge crossing the Mississippi at St. Louis, that a charter has been granted for a second one, although the first is abundantly able to accommodate all the business. With the experience gained in building the present structure a large saving can be made in constructing the second one.

NEW WHARF AT PETALUMA.—A. P. Whitney will build at Petaluma, during the spring, a wharf 150 ft. in length, and a \$7,000 warehouse,

S. F. MARKET REPORT.

At Wholesale when not Otherwise Indicated.

Weekly Market Review.

DOMESTIC PRODUCE.

SAN FRANCISCO, Feb. 18, 1875.

With the continued fine weather we receive renewed reports of the splendid progress of the crops in all parts of the State, and reiterated assurances of a most abundant harvest. Under ordinary circumstances such tidings would be received with unmixed gladness, as they ought, but at present the faintest speck of cloud overshadows the brilliant prospect, and reflective people wonder how the great bulk of the next harvest is to be sold. At present there is scarcely a doubt but that the English market will next fall rule low, and men ask themselves, how is it possible for us to draw the most good that we can from the unflattering prospect? That query has been already answered through this column in the RURAL PRESS. We have told the Patrons of Husbandry, in other words, that once having put their hand to the plow they cannot turn back, and that they must prepare to ship grain and sell it if they wished to meet the hopes that the Organization had raised in the minds of agriculturists throughout the land. And we are glad to see that our advice has not been disregarded, and that our friends are thus early at work. The notice of incorporation to be found in another column will call forth the plaudits of thousands throughout the Golden State. The gentlemen whose names are attached are well known for their honesty and ability. They briefly propose to buy and sell Cereals, Wool, Wine, etc., on commission, to charter and load ships on commission, and to sell the cargoes abroad on the same basis. They do not propose to enter as principals at all; merely to sell for their clients, just as commission merchants would. There is no reason why they should not get as good prices for grain in Liverpool as any business men could do, and, working as they do, not for individual profit, but for the public weal of the body they represent, the members of the latter may expect to receive the full value of their products, and to keep to themselves the profits formerly pocketed by the regular dealers. All this is right and proper and eminently just, and the wonder is that any newspaper representative of public opinion should object to it. In one instance at least, that of the Chronicle, we are satisfied that its remarks of last Wednesday have been made under misapprehension. It is not the intention of the Association to buy or sell general merchandise, and a proposition to do so was voted down at the meeting at which the Company was formed. They have no desire to interfere with the merchants of the State, whom they regard as their best friends, and do not wish to create a monopoly, merely to crush one that has for years held them down and oppressed them.

Beans—Receipts for the week 1108 cts. Total since Feb. 1st 2076 cts. Changes since our last are not worth quoting. There is very little business being done.

Beeswax—Quotable at 25¢@27½¢, with no large sales.

Broomcorn—There have been no receipts for some time past. Common is quotable at 5¢@7c and Choice at 8¢@10c.

Buckwheat—Receipts since our last 60 cts. The market has advanced to \$3.35 with a few small sales.

Corn—Receipts since our last 905 cts. Total since Feb. 1st 2182 cts. White is scarce and the market has advanced to \$1.60@1.80. Yellow is also higher, quotable at \$1.52½@1.55. Sales of 100 sks Yellow at \$1.52½, and 200 do at \$1.55.

Cornmeal—Notwithstanding the rise, we still quote Table at 2½¢@3c. Feed has advanced, and is quotable at \$34@35.

Cotton—Receipts since Feb 1st, 28 bbls. Quotable at 12¢@14c. No sales during the week.

Feed—Receipts since our last: Bran, 4705 sks; Middlings, 200 sks; Feed, 112 sks.

Total since February 1st, 12,477 sks; Middlings, 1058 sks; Feed, 112 sks.

The market continues to be fluctuating. Bran has gone back to \$14, though the National Mills give \$15, and Middlings have declined to \$20; Oil Cake Meal is still quotable at \$30.

Flour—Receipts since our last: 35,234 qr sks, including 1348 qr sks of Oregon per Oridamne. Total since February 1st, 89,763 qr sks.

The market is lower. Superfine being quotable at \$4.25@4.62½, and Extra, \$4.75@5.25. There is, however, a good deal of country Superfine sold at \$3.90@4, and the Golden Gate Mills give \$5.12½, at their highest price for Extra. Sales by the Golden Age of 6,000 qr sks for China, per City of Peking. Exports for the week, 4000 bbls.

Fresh Meat—No change has occurred in quotations since our last. We give Beef, first quality, 7¢@8c, do second, 6¢@7c; do third, 5¢@6c; Mutton, 6¢@7c; Pork Dressed, 8¢@8½c; do on Foot, 6¢@6½c. There is no Lamb to be had.

Fruit—Receipts since our last: 1257 bxs of Apples, 54 bxs of Fruit unspecified, 941 do Oranges and 29 do of Lemons.

Apples are more plentiful on account of the arrival of the Oridamne with 287 bxs of Oregon. These are quotable at \$1@1.50 per box, and are of superior quality. Pears are only in medium supply. Bananas are in very good supply, and the price has declined to \$3@4 per bunch. Limes are cut of the market. California Oranges are in very large supply, and are quotable at reduced figures, \$12@30. Lemons (California) are plentiful, quotable at \$1@1.25. Figs are quotable at 8c.

Game—Is in good supply generally speaking. Robins are scarce and dearer, 75¢@\$1. Small Ducks have declined, and are quotable at \$1@1.50; Mallard have also declined. Antelope are scarce and dearer, quotable at 10c.

Hides—Receipts since our last, 1500.

Total for February, 4060. Dry Hides are inactive. There are not many coming in on account of the bad state of the roads. Quotable at 18¢@19½c. Shipments of four carloads since our last. Wet Sated are quotable at 8¢@9c. Sales of 2000 within this range.

Hay—Receipts since our last: 1164 tons. Total since Feb 1st: 2230 tons; quotable at \$10@16, a reduction. Sales of 40 tons medium at \$13.

Honey—Receipts since our last: 6 cs. There is very little doing, and Honey is scarce, but quotations have changed none since our last.

Hops—Receipts since our last: 20 bbls. Total since February 1st: 22 bbls.

The market is dull, both here and in New York. The local market cannot now be quoted over 32½c, with no transaction to record.

Nuts—The market is dull, with a very light demand.

Onions—Receipts since our last: 3250 cts. Total since February 1st: 4935 cts.

We have received a large consignment of Oregon, 1231 bxs, quotable at \$1.80@1.85. There is better tone to the market. We quote California Common \$1.65; do Choice \$1.75@1.85; do Fancy, \$2@2.10. Sales for the week: 900 sks of good feed at \$1.75, 200 do Medium at \$1.77½, 500 do at \$1.85, and 300 do Good Feed at \$1.70@1.80.

Oatmeal—Still quotable at 5¢@6c per 100 lb sks.

Onions—Receipts since our last: 1070 cts. Total since February 1st: 2466 cts.

We note an improvement in the market, which is quotable at \$1@1.50 for good to choice. Sales of 100 sks choice Union City Yellow at \$1.30, and 200 do, do at \$1.15.

Pearl Barley—There is a good demand for China at 5¢@6c.

Poultry—Turkeys cheaper, 14¢@16c for live and 16¢@17c for dressed. Poultry have advanced. We quote Spring Chickens at \$6.00@7.00; Hens, \$7.00@7.50; Roosters, \$7.00@7.50; Ducks and Geese as last quoted.

Potatoes—Receipts since our last, 16,798 cts. Total since Feb. 1st, 31,769 cts. Dearer—quotable from \$1.75@2.00. Sales of 300 sks choice Salinas at \$1.85; 400 do To-matoes at \$1.80; 1000 do Idem, at \$1.80; and 2000 do Humboldt at \$1.75@1.85, and 1000 do good to choice at \$1.80@1.85.

Rye—Receipts since our last, 55 cts. Total since Feb. 1st, 624 cts. Weak at \$1.25@1.30, with no sales to record.

Seeds—No change. Mustard, weak; Timothy, dearer. Other kinds unchanged.

Tallow—Receipts since our last, 53,500 lbs. Market better. Very large sales during the week—one large dealer having sold 120,000 lbs and another 70,000 lbs. Quotable at 6¢@7c for crude and 7½¢@8c for refined.

Vegetables—Are more plentiful, but there are very few asparagus variety. Quotations declined.

Wool—Receipts since our last, 126 cts. Total since Feb. 1st, 151 cts. Neesles whatever made during the past week, but there will be considerable shipments before our next issue. Quotations altogether nominal. The following is the latest telegraphic report of the New York and London markets:

"The trade shows rather more life, but is yet far from being satisfactory to holders who appear more eager to place supplies, particularly of other than strictly fine qualities, with prices ruling rather weaker. Manufacturers are operating cautiously, yet California Ball of poor grades continues weak and unsettled, but the better grades are held quite steady. Spring is in light supply and is held firm. Sales of California, and 283 bbls and 13,000 lbs hurry Fall, at 15¢@19c; 103 bbls free do, 20¢@26½c; 16,000 lbs inferior Spring, 17¢@20c; 56,000 lbs slightly hurry, 25¢@29c; 53,000 lbs freely, 30¢@34c; 24,000 lbs superior put do, 40¢@44c, and 10,000 lbs fine secured, 72c. At Boston the market is dull, although there has been a fair movement in California, but on a very low basis as to prices. Free Fall has sold at 25c; mixtures of No. 1 and 2 are not very plenty. Sales at 22,000 lbs at 25¢@37½c for Spring; 18¢@25c for Fall; 72c for secured."

Wheat—Receipts since our last, 146,522 cts—smaller than the previous week. Total for February to date, 394,925 cts. Total since Jan. 1st, 1,237,166 cts. The Liverpool market continues to decline. It was quoted yesterday by telegraph at \$2.14@2.22 for California Average and \$2.24@2.36 for Club, a decline of 10c in California average as compared with that published. The total decrease since Feb. 2d has been 11c. The New York market has declined to \$1.20@1.25. The local market for shipping remains unchanged, but that for milling has declined, and is weak. We quote at 45¢@46c for superior put do, and 40¢@42c for inferior. For Milling \$1.50@1.57½ is asked, but only \$1.52¢@1.55 is offered. The following table shows the price of California Average for the past three years:

Year.	Date.	Price.
1875.	Feb. 16.	\$2.14@2.22
1874.	Feb. 17.	3.16@3.22
1873.	Feb. 18.	2.99@2.97

This shows a decline of \$1.01 as compared with last year, and one of 7c as compared with 1873. It is the lowest rate telegraphed since February, 1870, when 8-10 or \$2.14 was there for the past week:

500 sks Inferior.....	\$1.35
2,000 " ".....	1.47½
4,000 " Shipping.....	1.50
8,000 " ".....	1.51¼
1,500 " ".....	1.55
10,000 " ".....	1.57½
20,000 " ".....	Private

The following table shows the exports for February to date:

Cl'd Vessel.	Destination.	Cargo.	Value.
1 Idomene.....	Liverpool.....	46,781	\$14,850
2 Hindostan.....	Queensdown.....	39,794	63,671
3 Garrison Castle.....	Liverpool.....	27,447	45,445
4 Duncraig.....	Liverpool.....	22,812	36,340
5 Borrowdale.....	Liverpool.....	8,399	13,600
8 Jacques Cour.....	Queensdown.....	16,213	25,000
9 Oakworth.....	Liverpool.....	37,048	60,205
12 Kate Davenport.....	Cork.....	36,952	57,829
13 S Thomas.....	Cork.....	46,865	73,400
15 Ellen Gandy.....	Queenstown.....	31,080	50,505
15 Montgomery Castle.....	Liverpool.....	28,403	45,096
15 Josefa.....	Cork.....	25,676	39,643

Total 12 vessels..... 367,355
Previous 7 months..... 10,133,400
Total for the past year, 209 vessels..... 6,829,255
Shipments by two steams.

DOMESTIC PRODUCE.

WEDNESDAY M., Feb. 17, 1875.

BEANS.	Pigeon Pt.....	@ 2.00
Bayo.....	3 1/2	3
Butter.....	3 1/2	4
Pea.....	3 1/2	3 1/2
Pink.....	1 1/2	2
Sm'l wh. per lb.....	3 1/2	3 1/2

BROOM CORN.	Per doz.....	@ 5.00
Cal. 1874.....	12	14
Cal. 1875.....	12	14

COTTON.	Cal. choice B.....	32
Butter.....	30	37 1/2
Firkin.....	30	37 1/2
Good.....	37	40
Inferior.....	22 1/2	27
Pickled.....	18	18
Cheese, Cal.....	15	20
Eastern.....	15	20

EGGS.	Cal. fresh.....	32 1/2
Ducks.....	32	32 1/2
Eastern.....	32	32 1/2
Oregon.....	32	32 1/2

FEED.	Bran, per ton.....	@ 14
Corn Meal.....	33	30
Hay.....	11	30
Middlings.....	11	30
Oil cake.....	75	80
Straw.....	75	80

Ducks'.....	—	@	32½	Quail, per doz....	—	@	1 50
Eastern.....	—	@	—	Rabbits.....1	75	@	2 00
Oregon.....	—	@	—	do same doz..	10	@	1 50
FEED.				Roosters, young.	50	@	1 50

Bran, per ton....	— @ 14	Large.....	6 50	@ 6 00
Corn Meal.....	33 00@34 00	Sulph, Eng., doz	25	@ 2 50
Hay.....	11 00@17 00	Veal, per lb..	—	@ —
Middlings.....	— @ 22½	Wild Geese, gray	3 50	@ 4 00

Oil cake meal... — @ 30 00	do white... — @ 2 00
Straw, 3 bale... 75 @ 80	
FLOUR.	
Extra... 5 00 @ 5 37½	Cal. Bacon, Light 14 @ 1
4... 4 95 @ 4 75	do Medium... — @ 1
	do Heavy 13 @ 1

Supernine.....	4 20	4 15	do 1st quality.....	1 1/2	1 1/2
FRESH MEAT					
Beef 1st quality lb.	8	@ 8 1/2	Calf Smoked Beef	9	@ 10
Second do.....	6	@ 7	Eastern do.....	—	@ 10
Third do.....	5	@ 6	East'n Should's	9	@ 10
			do new hams	16 1/2	@ 17

Lamb.....	7 @	8	Hams, Cal.....	13½ @	1
Mutton.....	6 @	6½	do Whittakers	— @	1
Pork, undressed	6½ @	6¾	do Duffield, ch	— @	1
do, dressed	8½ @	8¾	do Armour.....	— @	1

Veal.....	6	@	8	do Boyd's....	—	@	—		
GRAIN, ETC.									
Barley, coast..	1	47½	@	1	55	do Stewart's..	—	@	—
do brewing	1	55	@	1	70	Gard.....	13½	@	1
SEEDS.									

Buckwheat...	3 00	@	—	Alfalfa, Chili...	10	@	1
Corn, White...	1 65	@	1 70	do California...	16	@	1
do, Yellow...	—	@	1 50	Canary.....	10	@	1
Oats, choice...	1 90	@	2 00	Clover Red.....	17	@	1
					25	@	1

FRUITS AND VEGETABLES.

WEDNESDAY M., Feb. 17, 1875.

Tahiti, Cr. M		
Lorita, do	— @ —	
Osl. do	15 00	35 00
Limes, M	15 00	20 00
Cal. Lemons, M	15 00	25 00
Australian do	15 00	20 00
do Sicily	15 00	21 00
Bananas, b	1000 2 50	3 00
Ococonuts, b	1000 5 00	5 00
Pineapples, box	7 00	23 00
Apples, doz.	1 00	75 00
Cherries,	— @ —	
Blackberries,	— @ —	
do wild,	— @ —	
Huckleberries,	— @ —	
Strawberries	10 00	— @ —

DRIED FRUIT.		
Apples, P. B.	5 00	— @ —
Pears, P. B.	8 00	— @ —
Peaches, P. B.	5 00	— @ —
Apricots, P. B.	12 00	— @ —
Plums, P. B.	6 00	— @ —
Pitts, P. B.	10 00	— @ —
do Extra, P. B.	10 00	— @ —
Raisins, P. B.	12 00	— @ —
Black Figs, P. B.	5 00	— @ —
White, do	8 00	— @ —
Pines,	15 00	— @ —
do cran,	34 00	— @ —
Citron,	15 00	— @ —
Zante Currants, 8	8 00	— @ —
Dates,	12 00	— @ —

VEGETABLES.

do black.....	@	20
Apricots.....	@	100 Ds. 50
Plums.....	@	Carrots, per ton..... 6 00
Peanes, bakt.....	@	Cauliflower, doz..... 1 25
do "Black Mountain B.....	@	Celery, doz..... 40
Pears, Bart, h.xl.....	@	Garlic, "B..... 11
do Cooking.....	1 00	do "S..... 10
Crab Apples.....	50	Green Corn "S doz.....
Nectarines.....	@	Sun's Squash per ton.....
Wat'mel's.....	@	Marro'fat Sq's, ton..... 15
Muskm's.....	@	Artichokes, doz..... 75
Fomegran's.....	@	String Beans, "B.....
do "Black.....	@	Lima Beans.....
Grapes, El'Hig.....	@	Parsnips..... 15
do Muscat.....	@	Shell Beans.....
do Malavo'e.....	@	Peppers, green, box.....
do Sweetw'r.....	@	Okra, green.....
do Mission.....	@	Cucumbers, box.....
do Rose of Peru.....	@	Tomatoes, box.....
do Tokay.....	@	Egg Plant, box.....
do Morocco.....	@	Rhubarb.....
		Lettuce..... 25
		Turnips, ton..... 15

LEATHER

LEATHER.

WEDNESDAY M., Feb. 17, 1875.

Santa Cruz Leather, 8 Kil. D.	
Country Leather, 8 Kil. D.	
Stockton Leather, 8 Kil. D.	
Jodot, 8 Kil., per doz.	\$50 00
Jodot, 11 to 13 Kil., per doz.	68 00
Jodot 14 to 19 Kil., per doz.	82 00
Jodot, second choice, 11 to 16 Kil. 3/4 doz.	57 00
Cornellian, 12 to 16 Ko.	57 00
Cornellian, 12 to 13.	63 00
Cornellian Females, 14 to 16 Kil.	71 00
Simon Ulmo Females, 12 to 13 Kil.	60 00
Simon Ulmo Females, 14 to 15 Kil.	70 00
Simon Ulmo Females, 16 to 17, Kil.	73 00
Simon, 18 Kil., 3/4 doz.	61 00
Simon, 20 Kil., 3/4 doz.	65 00
Simon, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00
Robert, 24 Kil., 3/4 doz.	72 00</

S. F. RETAIL MARKET RATES.

WEDNESDAY M., Feb. 17, 1875.

00	Spring Chickens	62	@	75	FISH, MEATS.
05	Hens.....	75	@	100	Flounders, 3 B....12½ @
29	Eggs Cal.....	45	@	50	Salmon, 3 B.....30 @
00	do Eastern....	30	@	40	Smoked.....— @

Nurserymen.

Established 1853.

Stocks for Nurserymen.

Plum Seedlings, Miroholan, the best French stock, does not sucker..... \$50 per 1000
 Apple Seedlings..... 10 per 1000
 Pear Seedlings..... 10 per 1000
 Cherry Seedlings, Mazzard..... 12 per 1000
 Cherry Seedlings, Mahaleb..... 20 per 1000
 Walnuts, English, 4 to 6 feet..... 15 per 100
 Cork Elm, best Elm, 4 to 6 feet..... 15 per 100
 Blue Gum or Eucalyptus, in variety..... 6 to 10 per 100
 Magnolia Grandiflora.....
 Magnolia Acuminata.....
 Magnolia Tripetala.....
 Golden Arborvitae.....
 Crataegus Arbutifolia.....
 Swedish Juniper.....
 Irish Juniper.....
 Heath-leaved Arborvitae.....
 Heath, Mediterranean..... \$2 50 per doz.
 Laurustinus, 6 to 12 in..... 2 50 per doz.
 Making the growth of Oranges and Lemons a specialty, I have imported from all sources the best known varieties, and now offer five thousand Grafted Trees properly worked and twice transplanted at \$18 per dozen. Grafted oranges by the 100 or 1,000 at prices on application. The amateur in want of large PALMS, large AURICARIAS, large CAMELIAS and large TREE FERNS, a good stock on hand; also the usual large stock of fruit and ornamental trees.

BERNARD S. FOX,
 San Jose, Cal.

THOS. MEHERIN, Agent, 516 Battery Street, San Francisco. 24783m.

Fruit, Shade and Ornamental

EVERGREEN TREES

-AND-

Plants for Sale.

At the old stand, corner Oregon and Battery streets, directly opposite Post Office, San Francisco.

I NOW OFFER FOR SALE

The Largest and Best Collection of Fruit, Shade and Evergreen Trees and Plants ever offered in this market, and at Reduced Prices.

Persons laying out new grounds would do well to call and examine our stock before purchasing elsewhere.

ORDERS FROM THE COUNTRY

Promptly attended to and packed with great care. A large stock of Cypress, Pines and Blue Gums for sale very low. Send for Price Catalogue.

Agent for B. S. Fox's Nurseries, San Jose. Address

THOMAS MEHERIN,
 P. O. Box, 722, 516 Battery St., S. F.

SHINN'S NURSERIES,

NILES' JUNCTION,

Alameda County, - - - California.

The attention of persons intending to set out Trees is requested to the well grown and large variety offered for sale by the undersigned at the above Nurseries. An examination of our stock will satisfy any one of the quality, being all that can be asked, and when the low prices we have fixed are taken into consideration, we believe we are offering the very best inducements for buyers to deal with us. For full particulars we refer to our circular for the approaching season, which will be sent, as requested, on application to either of the undersigned.

SHINN & CO.,
 Proprietors.

Address James Shinn, Niles, Alameda County, Cal., or, Dr. J. W. Olark, 418 California street, San Francisco, Cal. 8v17-4mo.

F. LUDEMANN. RUD. MICHELSEN.

PACIFIC NURSERY,

aker St., Between Lombard and Chestnut,
 San Francisco, Cal.
 P. O. Box 475.

We offer this Season a Large and Complete Selection of Well Grown

EVERGREEN AND DECIDUOUS TREES AND SHRUBS, FLOWERING AND ORNAMENTAL PLANTS

At very reasonable Prices. Our Descriptive Catalogue of Evergreens and Deciduous Trees and Shrubs, and our Wholesale Trade List (For Dealers and Nurserymen) will be sent on application. All Orders promptly filled.

F. LUDEMANN & CO.

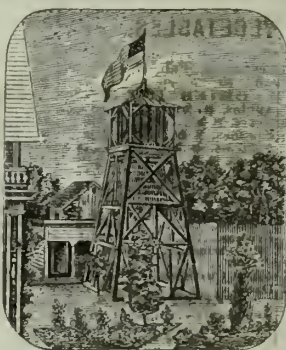
KING'S NURSERY,

Twenty-fifth St., bet. Telegraph & Broadway
 OAKLAND, CAL.

Fruit, Shade and Evergreen Trees, Shrubs, Roses, Etc. Persons laying out new grounds would do well to call and examine our stock before purchasing elsewhere. A large stock of EUCALYPTUS, including BLUEGUM Pines and OLYMPIA from six inches to twelve feet high. Acacias in Variety; Young Stock for Nurserymen; Pines and Cypress; Three Thousand Magnolia Grandiflora from six inches to five feet high; Camelia Japonica; Gardenia Cape Jessamine; Araucarias in Variety, at Lowest Rates. Orders attended to.

M. KING, Nurseryman,
 Address, 3v9-3m Oakland, Cal.

John Saul's Catalogue of New, Rare and Beautiful Plants for spring of 1875 will be ready in February, with colored plate. Free to all my customers. To others, 25 cents. A plain copy to all applicants free. Washington, D. C.



Parties who have been troubled with Windmills blowing to pieces and getting out of repair should by all means examine the

DEXTER,

THE ONLY PERMANENT MILL IN EXISTENCE.

It runs with lighter wind than any other; regulates itself in a gale; and has never been known to be injured by storms, although it has stood for six years on the Plains of Kansas, Nebraska, Missouri, Iowa and Illinois, where no other mills have been known to stand any length of time. All we ask is a full investigation of the DEXTER.

DEXTER MILL CO.,

OFFICE-601 California Street.....SAN FRANCISCO.
 4v8-cow-3m MANUFACTORY, FOOT OF BROADWAY, OAKLAND.

The attention of Wool Growers is continually invited to the

Thoroughbred Stock Bred and Kept on the MERINO RANCH,

Situated at Niles, Alameda County, Cal., only five minutes walk from the station, junction of San Jose and C. P. R. R. Parties desiring to visit our ranch can leave San Francisco at 3 o'clock P. M., and have an hour at the ranch, returning on Overland train at 6 P. M. Or coming out in morning, can return to city at 11 o'clock A. M. The proprietors make the



THOROUGHbred SPANISH MERINO SHEEP A SPECIALTY,

Believing them to be the BEST SHEEP IN THE WORLD, and are constantly receiving fresh importations from Addison County, Vermont.

Our stock are all Imported Sheep, and have no superiors in the United States. We always have on hand choice young RAMS and EWES, of all ages, for sale at Reasonable Prices, giving time, if required, to responsible parties. City Office-315 California Street, San Francisco.

SEVERANCE & PEET,
 Importers and Breeders of Spanish Merino Sheep.

10v7-cow

RELIABLE.

THE

UNEQUALED.

ONE PRICE DRY-GOODS HOUSE,

42, 44, and 46, Third Street, San Francisco.

THE GOODS ARE ALL MARKED, IN PLAIN FIGURES,

PEIXOTTO & SILVERMAN.

Metropolitan Nurseries,

Lombard Street,

Between Polk & Larkin Streets, at the Terminus of the
 Clay Street Hill Railroad.

MILLER & SIEVERS, PROPRIETORS.

FLORAL AND SEED DEPOT,

NO. 27 POST STREET, San Francisco.

Our stock of plants, comprising a most selected collection of Flowering and Ornamental Plants for the garden and the conservatory.

ROSES, over 200 varieties.

PINKS, 100 varieties.

DAHLIAS, 60 varieties.

PALMS, 40 varieties.

FERNS, 100 varieties.

ORANGES & LEMONS,

30 varieties

Our assortment of Flowering Bulbs is complete. Always on hand a choice and fresh lot of

TREE, SHRUB and FLOWER SEEDS.

CUT FLOWERS, BOUQUETS, FUNERAL WREATHS and FLORAL DECORATIONS furnished at short notice and on reasonable terms.

Orders from any part of the country promptly filled.

Eucalyptus globules, (Blue Gum) seed, fresh invoice \$15.00 per pound.

New catalogue now ready, gratis on application.

1852.

1875.

ESTABLISHED IN 1852.

THE STOCKTON NURSERY

I have for sale for the ensuing season a Large and Well Grown Stock of All Varieties of

FRUIT TREES,

SHADE,

ORNAMENTAL

and

EVERGREEN TREES,

GREENHOUSE PLANTS, AUSTRALIAN GUMS, SHRUBS, ROSES, BULBS, PALMS.

Send for Catalogue.

W. B. WEST, Stockton, Cal.

KELSEY'S NURSERIES,

OAKLAND, - - - - - CAL.

Established 1852.

More largely stocked this year than any previous year. Embracing all and every kind of

FRUIT, DECIDUOUS, ORNAMENTAL AND

FLOWERING TREES AND

PLANTS, ETC.

Send for Catalogue and Price List free on application.

W. F. KELSEY, Prop.

J. ROCK'S NURSERIES,

San Jose, California.

We offer this season a Complete Stock of

FRUIT AND ORNAMENTAL TREES,

SMALL FRUITS AND PLANTS.

The attention of Dealers, Nurserymen and Planters is invited to our Large Stock of Fruit Trees. All Leading Market Varieties are grown in large quantities. To all those purchasing largely we will make a Liberal Discount. Catalogues FREE on application.

23-v8-1f JOHN ROCK, San Jose, Cal

ALMOND TREES.

35,000 Brier's Languedoc Almond Trees, one and two years old from the bud. This is the only Almond planted on a large scale, being hardy, late blooming, beautiful tree. It bears the second year from planting. The Almond is large and sweet with soft shell. Also, two year old Peach and English Walnut trees. Liberal terms to the trade and persons planting large orchards. Send orders to

W. W. BRIER,

21v8-3m Centerville, Alameda Co., Cal.

PEACHES, APRICOTS AND PLUMS

are specialties at the Vacaville Nursery, Solano Co., Cal. Alexander's Early, Thurber and Peento in bud, 50 cents each; Beatrice, Louise, Rivers' Early, Lord Palmerston Lady Palmerston, Prince of Wales, Princess of Wales, Piquet's Late, Lady Parham, Italian Dwarf, Golden Dwarf, Bloodleaved and many other varieties of new Peaches in bud, at 25 cents each; Trees of Alexander's Early, \$1 each. Beatrice, Plowden, Freemason and a general assortment of the leading varieties, 25 cents each; Apricots, Pinks, Apples, Pears, Cherries, Almonds, Figs, Olives, Pomegranates and including most of the leading varieties of fruit for sale at low prices. D. E. Hough, Vacaville, Solano Co., Cal.

BLOOMINGTON NURSERY, Bloomington, Ill.-F. KRONIX. Spring lists free, or the set of four catalogues post free for twenty cents.

FOR FRUIT, ORNAMENTAL
TREES
 FOR PLEASURE, PROFIT,
 WHOLESALE AND RETAIL.

Pears, Apples, Cherries, Peaches
 Plums, Quinces.

Small Fruits.-Grapes, Currants, Raspberries, Blackberries, Strawberries, Gooseberries.
 Ornamental.-Weeping and Standard Trees.
 Evergreens.-Common and New and Rare.
 Shrubs.-Variegated-leaved and Flowering.
 Roses.-Moss, Tea, Climbing and Perpetual.
 Clematis Jackmanni is perpetual, hardy, lives easy, grows fast, and flowers the first year.
 12 sorts Perpetual White Clematis and fifty new varieties of many shades of colors. Strong plants safely sent by mail.
 Good Plants sent by mail, post-paid, as follows:
 6 Choice Roses for...\$1 00 13 Choice Roses for...\$2 00
 6 Variegated-leaved and Flowering Shrubs for...\$1 00
 13 Variegated-leaved and Flowering Shrubs for...\$2 00
 500 Acres } T. C. MAXWELL & BRO'S.
 of Nursery. } Catalogues Free. Geneva, N. Y.

BELLEVUE NURSERY,

Telegraph Avenue, Oakland.

WE OFFER FOR SALE THE PRESENT SEASON A
 LARGE ASSORTMENT OF

Ornamental Trees and Shrubs

OF BEST TRIED VARIETIES.

Many fine specimens of good size can be seen on the grounds to select from. Choice collections (true to name) put up for those starting a garden. Street cars pass every fifteen minutes.

8v9-1f

S. NOLAN.

PEPPER'S NURSERIES.

(Established in 1858.) PETALUMA, CAL.

Green Houses and Tree Depot corner Washington and Liberty streets.

4 Green Houses. 3,000 feet of Glass. Fruit Trees a Specialty.

We offer for sale at lowest market rates a general assortment of Fruit and Shade trees, small Fruits, Vines etc. Evergreen trees and Shrubs in great variety. Green House, Conservatory and Bedding Plants, Roses, etc. We are now ready, Nov. 1st, to fill orders for trees and plants. Catalogue and price list furnished on application.

Address, W. H. & G. B. PEPPER,
 19v8-1f Petaluma, Sonoma Co., Cal.

BAY NURSERIES

and Seed Store.

Established 1852. P. O. Box 331.

OAKLAND, CAL.

An immense collection of Evergreen Trees, Shrubs and Flowering Plants, wholesale and retail. I invite inspection. Catalogues on application.

JAMES HUTCHISON, Prop.

SUPERIOR FRUIT TREES

TRUE TO NAME.

A fine collection of Evergreen and Deciduous Trees. Australian Gum Trees in variety, by the hundred or thousand. Monterey Cypress in quantities and sizes to suit all. Orange and Lemon Trees at reduced prices. A general variety of Nursery stock.

Also, Rhubarb and Asparagus roots.

T. CORLEY,

18v29-1f 315 Washington Street, S. F.

Thos. A. Garey's

Semi-Tropical Nurseries.

LOS ANGELES, CAL.

Forty varieties of the Citrus family of semi-tropical trees, including many rare and beautiful, as well as useful and profitable kinds.

Grafted and Budded Orange Trees a specialty. Trees packed to arrive in good order. Priced Catalogue sent free. Address me P. O. Box, 528, Los Angeles city, Cal.

23v8-6m THOS. A. GAREY.

THE ALDEN

Fruit Preserving Company

OF CALIFORNIA.

Is now prepared to sell rights and furnish the necessary machinery for using the "ALDEN PROCESS," acknowledged to be the best method known for preserving Fruits, Vegetables, Meats, etc.

For full particulars call at the company's

Office, 426 Montgomery St., S. F.

G. W. DEITZLER, President.

W. M. WHERRY, Vice-President.

FRANK PYLE, Sec'y and Sup't.

BANK OF CALIFORNIA, Treasurer.

ALEX. BUSWELL,

BOOK BINDER, PAPER RULER

AND BLANK BOOK MANUFACTURER.

521 Clay Street, S. F.

Blank Books Ruled, Printed and Bound to Order

Seedsman.

1875. Established 1857. 1875.

Capital Nursery and Seed House

W. R. STRONG and ROBERT WILLIAMSON, Proprietors, having united their interests in the Seed and Tree business, offer to the public the largest and finest growth of both Seeds and Trees ever offered to the California public, of their own production, and also from the largest and most reliable houses of the Eastern States and Europe, all of which we offer as low as Eastern Dealers.

TREES. TREES. TREES.

Fruit, Shade, Ornamental, Evergreen, etc., raised in our Nurseries of the very best varieties. Dealers and Growers furnished at very lowest rates. Among our numerous varieties we call especial attention to BRIGGS' RED MAY PEACH, the earliest known, large, handsome of excellent flavor and good shipper.

SEEDS. SEEDS. SEEDS.

Vegetable, Flower, Field and Tree Seeds, and Flowering Bulbs and Plants.

100,000 pounds Finest Quality California ALFALFA, RED and WHITE CLOVER, KENTUCKY BLUE GRASS, RYE GRASS, ORCHARD GRASS, VERNAL GRASS, MESQUIT GRASS, TIMOTHY, RED-TOP GRASS, and every other Grass adapted to the Pacific States and Territories.

All the finer qualities of our Seeds will be forwarded by mail (post-paid) to customers at Catalogue rates, on receipt of money, which can be sent by postal orders or registered letters, or express, at our risk.

CATALOGUES AND PRICE LISTS on application, and forwarded by mail.

WAREHOUSE, 8 and 10 J street. NURSERIES, U street, SACRAMENTO CITY. TREE YARD, I street, next to Library Building.

W. R. STRONG & CO.

SEEDS. SEEDS.

Encourage home industry and make a saving of at least 30 per cent.

If you want Seed that you can depend upon as to variety and freshness, why not send your orders direct to the grower and make a saving of at least thirty per cent. on the prices of other seedsmen. Send for catalogue, free, post-paid, and compare with prices of other dealers. Just received,

Grasses, Clover, Alfalfa and Field Seeds, Fruit and Evergreen Trees, Shrubs, Flowering Shrubs, and Green-house Plants. Cabbage, Onion and Cauliflower Plants.

Large assortment of Bulbs from Holland. Address all orders or letters of inquiry, to

SEVIN VINCENT,

607 Sansome street, San Francisco, Cal

22v8-3m

My annual catalogue of Vegetable and Flower Seed for 1875, will be ready by Jan. 1st for all who apply. Customers of last season need not write for it. In it will be found several valuable varieties of new vegetables introduced for the first time this season, having made new vegetables a specialty for many years. Growing over a hundred and fifty varieties on my several farms, I would particularly invite the patronage of market gardeners and all others who are especially desirous to have their seed pure and fresh, and of the very best strain. All seed sent out from my establishment are covered by three warrants as given in my catalogue.

JAMES J. H. GREGORY, Marblehead, Mass

Fresh Osage Orange Seed

At One Dollar per pound, will be forwarded by mail in one pound packages on receipt of the price. Address,

DR. STRENTZEL,

Martinez, Contra Costa Co., Cal.

SANTA CLARA.

Union Box Factory,

GEO. W. SWAN & CO.,

115 and 116 Spear St., bet. Mission & Howard

SAN FRANCISCO.

Apple, Pear, Plum, Peach, Cherry, Grape, Orange, Lime and Wine Cases.

Tomato, Potato, Fig and Raisin Boxes.

Strawberry, Raspberry and Blackberry Chests and Drawers, and Baskets for all kinds of Berries.

Peach and Picking Baskets, Butter Chests and Boxes, Cheese Boxes, Square and Round Egg Carriers.

Drums for Figs, Cherries, Raisins, and for other Dried Fruits.

Free Packages—Boxes not to be returned—a good article, costing less than Sawed Boxes.

Lard Caddies, Coffee and Fruit Caddies.

Turkey and Chicken Coops, Bee-Hives, Etc.

Packing Boxes for Dry-Goods, Cigars, Candles, Candy Fruits, Honey, Macaroni, Crackers, Sugar, Soap, Boots, Etc.

In fact, every style of Boxes manufactured in the Union, and turned out in the Best Style at Favorable Prices. Orders from the country well attended to

Orders Wanted at the National Employment office, 608 Market street, room 9; office crowded daily with good men and women, seeking employment; particular attention paid to country orders.

25v8-3m A. BRANDT & CO., Prop's

Agricultural Articles.

J. WAGNER,

MANUFACTURER OF

FRENCH BURR MILL STONES AND PORTABLE MILLS.

General Mill Furnishing. Portable Mills specially adapted for Farmers' use. 113 and 115 Mission street, San Francisco. 13v7-3m-2am

VINE AND FRUIT GROWERS,

TO RAISE LARGE CROPS

YOU MUST IRRIGATE.

To irrigate successfully, you must have the power that does not give out when the wind fails.

Laufkotter Bros. & Churchman's Horse-Power,

[PATENTED FEBRUARY 13th, 1872.]

Never fails to supply more water than four or five Windmills, even supposing you had all the wind you want. It is also suitable for running light machinery, such as Barley Cracker, Corn Shellers, Fanning Mills, Grain Separators, or for Sawing Wood. They are never failing, cannot get out of order, easily worked, substantial, and always give satisfaction wherever they have been used. One horse can easily work two 6-inch pumps, with a continuous flow of water. Force Pumps, from 3,000 to 10,000 gallons per hour. WINDMILLS of all kinds manufactured to order. Wells Bored, Windmills and Horse-Powers set in any part of the State, and repairing of all kinds done.

Manufactured and for sale by

LAUFKOTTER BROS.,

v7-2m-3m Cor. J and 10th Sts., Sacramento.

G. OREGO. S. O. BOWLEY.

CREGO & BOWLEY,

Importers and Manufacturers

—OF—

CARRIAGES and WAGONS,

No. 9 Merchant's Exchange,

CALIFORNIA STREET.....SAN FRANCISCO

Keep constantly on hand top and open Buggies, top and open Rockaways, Jump-seat Buggies, Track and Road Sulkeys, Skeleton Wagons, Basket Phaetons of the very latest styles and finest workmanship.

We would call particular attention to our fine stock of light Road and Trotting Wagons, made to order by the following celebrated makers:

Charles S. Coffrey, Camden, New Jersey; Helfield & Jackson, Rahway, New Jersey, Gregg & Bow, Wilmington, Delaware; And the first-class makers, which we are prepared to sell on the most reasonable terms.

Also, a large assortment of single and double Harness, of the most celebrated makers:

O. Graham, New York; J. R. Hill, Concord; Pittkin & Thomas, Philadelphia.

Also, a full assortment of Dress and Light Blankets, Fur and Lap Robes, Whips, Halters, Surcingle, etc., at wholesale and retail.

OREGO & BOWLEY,

No. 9 Merchants' Exchange, California street,

24v5-3m San Francisco.

THE TREADWELL SULKY

GANG PLOW.

Improved for 1874, with BLACK HAWK Plow Bottoms, is the best GANG PLOW in the world. It is Simple, Strong and Durable, and does its work effectually. Has high wheels, running both on unplowed land; iron axle, wrought iron beams, and is built nearly all of iron and steel. No farmer should neglect to see it before buying. Send for descriptive circular and price. We have also the "VICTOR GANG," with hard wood beams and heavy cast iron standards; price, \$75. Also the "GOLDEN STATE GANG," with all iron beams; price \$75. "PFIEEL'S GANG," improved; price \$50; old style, \$25. The largest and best stock of Plows, Harrows, Cultivators, Grain Drills, Seed Sowers, Farm Wagons, etc., in the country.

TREADWELL & CO.,

18v8-tf San Francisco

MATTESON & WILLIAMSON'S

AMERICAN CHIEF

GANG PLOW.

Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over orade knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m MATTESON & WILLIAMSON, Stockton, Cal.

Farmers and Threshers

WISHING TO HAVE

Straw Burning Engines

For next season must engage them soon, as most of those now building are already sold. Threshing Engines for Repairs should be sent in now. A number of Second-hand Engines—taken in exchange for "Straw Burners"—for sale cheap. For particulars and prices, address:

H. W. RICE,

23v8-3m Haywood, Alameda County.

Notice—To Tule Land Owners.

I am manufacturing a Gang Plow specially adapted to ploughing Tule Lands. Address

Vallejo Foundry, J. L. Heald, Prop.,

18v29-3m VALLEJO, CAL

Allen's Planet Jr. Silver Medal

HAND DRILLS and WHEEL HORS. Three new styles. They "sow like a charm," and hoe better, easier, and six times faster than the hand hoe. S. L. ALLEN & CO., Mfrs. 119 S. 4th St., Phila., Pa. Circulars free. A LIVE AGENT WANTED in every town.

Commission Merchants.

STUART & ELDER,

WHOLESALE

COMMISSION MERCHANTS

FOR THE SALE OF

California Dairy Produce,

GRAIN & QUICKSILVER,

204 Front Street, San Francisco.

AGENTS FOR THE

Missouri,

Kentuck,

Ida Clayton

and Yellow Jacket

Quicksilver Mines.

All orders for Supplies and Machinery for Mines promptly attended to.

Supplied at Importers' Prices.

3v8-cow-bp

Davis & Sutton, Commission Merchants,

For California Fruits; also for the sale of Butter, Eggs Cheese, Hops, Green and Dried Fruits, etc. 75 Warren street, New York. Refer to Anthony Halsey, Cashier, Tradesmen's National Bank, N. Y.; Ellwanger & Barry, Rochester, N. Y.; O. W. Reed, Sacramento, Cal.; A. Lusk & Co., Pacific Fruit Market, San Francisco, Cal.

B. W. OWENS, San Francisco. | E. MOORE, Stockton, Cal

OWENS & MOORE,

COMMISSION MERCHANTS,

DEALERS IN

WOOL, HIDES, PELTS AND GRAIN.

Office—405 Front street. S. F. 14v7-3m

H. K. CUMMINGS, 1858. H. E. BALSTON, 1875.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission House,

ESTABLISHED 1858.

No. 424 Battery street, southeast corner of Washington, San Francisco.

Our business being exclusively Commission, we have no interests that will conflict with those of the producer.

4v23-15

Miscellaneous Notices.

J. Y. WILSON. WM. FAULL W. L. MERRY

WILSON, MERRY & CO.,

Provision Packers

And Dealers in

SALTED AND SMOKED MEATS,

Lard, Etc.

PROP'S BLACK POINT PACKING HOUSE.

We respectfully call the attention of Farmer and Stock Raisers to the fact that we are always prepared to purchase hogs, cattle and sheep at full market prices, for Cash, and shall be glad to answer promptly any inquiries addressed to us on the condition of the Market.

Office No. 223 Sacramento St., Near Front, San Francisco.

THE CELEBRATED

H. H. H.

HORSE MEDICINE

IS STILL AHEAD OF ALL OTHERS.

The Wholesale Druggists of San Francisco, give evidence of its appreciation throughout the State, by and rapidly increasing orders. We pledge it a cure for SPAVINS, WIND GALLS, SWEENEY, SCRATCHES, LAME AND STIFF JOINTS, CALLONS, LUMPS, AND ALL BLEMISHES, SPRAINS OR BRUISES.

It is a household blessing and no family should be without a bottle in the house. For sale everywhere.

WILLIAMS & MOORE, Prop's.,

25v8-6m Stockton, Cal.

Hooper's South End Grain Warehouse.

Japan and Townsend Streets.

SAN FRANCISCO, July, 1874.

I beg to inform you I have leased the above first-class Fire-Proof Brick Warehouse, now being erected by Geo. F. Hooper, Ken., and will be ready to receive storage on the 1st of August. This warehouse offers superior inducements to parties desiring to store grain and flour, as it is situated on the Water Front, and on the line of the O. P. R. R. and S. P. R. R. It is well ventilated, rat proof, and combines all the modern advantages and improvements. Yours respectfully, JOHN JENNINGS.

Advances and insurance effected at the lowest rates. Storage taken at lowest current rates. 4v8-ft

HOP ROOTS FOR SALE.

I have a lot of choice HOP ROOTS, and also healthy BLACKBERRY SETS for sale at LOWEST RATES. Orders may be addressed through DEWEY & Co., of the Rural Press, San Francisco; ROBT. WILLIAMSON, Capital Nurseries, Sacramento; or to me,

CALVERT T. BIRD,

24v8-3m San Jose, Cal.

SANTA BARBARA COLLEGE,

SANTA BARBARA, CAL.

A Boarding School for Boys and Girls, offering all the advantages of a thorough modern education. French, German, Spanish, Latin, Greek, Drawing, the Natural Sciences, Gymnastics and Dancing taught without extra charge. Vocal and instrumental Music receive particular attention. Pupils furnish only a pair of heavy blankets. Next term opens January 6th, 1874.

Write for Catalogue to

ELWOOD OOPPER,

22v6-1v President Board of Directors.

BELLA UNION HOTEL,

JOHN F. MILLER, Prop.,

SAN BERNARDINO, CAL.

This fine hotel is situated in one of the best parts of the city, and the proprietor will at all times use his best endeavors to promote the comfort of his guests.

1874. GUIDE AND CATALOGUE 1875.
FREE.

To persons contemplating purchasing I will send my ILLUSTRATED, DESCRIPTIVE CATALOGUE and GUIDE to the VEGETABLE and FLOWER GARDEN WITHOUT CHARGE. It contains the most extensive and valuable list of



Flowering Bulbs, Roots and Plants, Semi-Tropical Trees, Ornamental Shrubs, Fruit and Shade Trees, etc., ever offered in this market. It tells how to successfully grow the Australian Blue Gum, the Monterey Cypress, Pine, etc., and the proper method of Cultivating Tobacco on this Coast.

My stock of Seeds is in part my own raising and in part direct importations from the best European and Eastern growers, and is unsurpassed in all respects by that offered by any other establishment. 100,000 Australian Blue Gums and Monterey Cypress in boxes at from \$30 to \$50 per 1,000, raised at my own Nursery at San Rafael.

R. J. TRUMBULL,
Grower, Importer, Wholesale and Retail Dealer in
Seeds, Shrubs, Trees, etc.
2078-6m-16p 427 Sansome street, S. F.

Grangers' Bank of California

INCORPORATED APRIL 27th, 1874.

Capital \$5,000,000, in 50,000 Shares
of \$100 each.

Directors:

PRESIDENT—JONATHAN V. WEBSTER..... Alameda
V. PRESIDENT—C. J. CRESSEY..... Stanislaus County
THOMAS MCCONNELL..... Sacramento
JOHN G. HILL..... Ventura County
J. V. WEBSTER..... Alameda County
JUSTICE C. MERRYFIELD..... Solano County
J. LEWELLEN..... Napa County
GILBERT W. COLBY..... Butte County
J. P. CHESMAN..... Contra Costa County
F. J. WOODWARD..... San Joaquin County
C. S. ABBOTT..... Monterey County
F. A. CRESSEY..... Secretary.

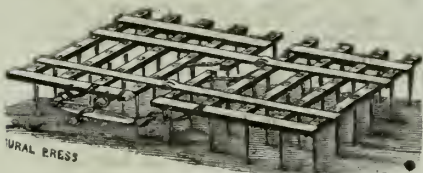
Office, 415 California Street,
SAN FRANCISCO. - - CALIFORNIA.

The Bank was opened on the first of August, 1874, for the transaction of ordinary Banking business. Current Accounts are opened and conducted in the usual way, and interest at the rate of 1/2 per cent per month is allowed on the minimum monthly balance.

Deposits Receipts in sums of \$50 and upward received, and receipts given for the amounts, repayable on 30 days' notice of withdrawal. These deposits bear interest at rates varying with the current rate of discount.

Deposits for Fixed Periods are received, and interest allowed at the following rates: Three months, 6 per cent; Six months, 7 per cent; One year, 8 per cent. A share of the patronage of the public is solicited.

Donohue's Patent Harrow.



Patented October 13, 1874.

This Harrow, as may be seen in the cut, is constructed so that by its natural hanging and draft, without extra weights, the outer edges will keep down to their work, and preserve, as nearly as possible, a uniform level and penetration of teeth. To illustrate the engraving, if a line should be drawn through the two hinges it would cut the Harrow into two trapezoidal figures, thus causing the weight of the corners or acute angles to be nearly at right angles to the breaking line or joints of the two hinges, so that their superior leverage, owing to their greater distance from the hinges, will cause them to keep closely down to the ground when the harrow is working.

Orders received from all parts of the country, and a thoroughly durable implement furnished at reasonable rates, by the inventor, who is a practical worker.

F. DONOHUE,
Mayfield, Santa Clara County, Cal.

Bronze Turkeys

12 Gobblers from 8
to 20 months old,
22 to 40 lbs. each,
for sale now.
Hens 14 to
18 lbs.



Emden Geese

40 to 50 pounds
per pair at ma-
turity.

BLACK
CAYUGA DUCKS,

Games, Brahmas, Leghorns, Houdans, Ban-
tams, etc.

Eggs, fresh, pure, true to name; well-
packed so as to hatch after arrival.

For Illustrated Circular and Price-List, address

M. EYRE, Napa, Cal.

FERRETS. RABBITS. PIGEONS.

Please state where you saw this advertisement.

The Rural Press and the Grangers in Mon-
tana Territory.

EDITORS PRESS:—I would not be without the PRESS on any account—the best Granger and farmer paper now published that I know of—and I never will be without it if favored as I have been in the past. We, the farmers of Montana, have organized ourselves in the farmers (Grangers) movement. H. H. MOORE, Bozeman, M. T., December 27, 1874.

BANCROFT'S MUSIC ROOMS,

Second and Third Floors Bancroft's Building.

General Agency for

KNABE PIANOS.

No other Instrument has such a strong, unblemished and secure reputation to-day as the Knabe Piano. It is the only American piano that finds a sale among the titled and wealthy families of Europe, whose intrinsic merit determines the choice. Wherever the Knabe Piano has been introduced, in cold or hot countries, in wet or dry, it holds its exquisite quality of tone unimpaired, and retains in perfect condition its powerful yet delicate action under long and hard use. The great centers of civilization in Europe and America to-day recognize the Knabe Piano as without a superior in any essential of a first-class instrument. The Knabe Piano stands unrivaled in reputation in the great cities of New York, Washington, Chicago, Cincinnati and New Orleans.

UNITED PIANO MAKERS' Square and Square Grand Pianos.

HARDMAN Square Grand Pianos.

McCAMERON Square Pianos—small size.

FISCHER Square Pianos. Very Low Priced.

CYCLOID Pianos, with Crescent-shaped Backs.

PLEYEL Grand and Upright Pianos.

DIBANC Upright Pianos.

CHAPPELL Upright Pianos.

ALSO GENERAL AGENTS FOR

Prince Cabinet Organs and Melodeons, Vogel & Hughes'
Nonpareil Cabinet Organs, Manning Organ
Co's Parlor Organs,

COMPRISING ALTOGETHER

The Largest and Most Complete Assortment of Pianos and Organs to be found in any
one House on the Pacific Coast. Instruments Reliable and Fully
Warranted. PRICES REASONABLE. Also

SHEET MUSIC. A large, fresh stock and complete assortment of Sheet Music and Music Books.

GUITARS, VIOLINS, Strings, Accordeons, Flutes, and a general assortment of Musical Merchandise at Reasonable Prices.

GOOD BARGAINS to be had at Bancroft's Music Warerooms. Old Pianos taken in exchange for new. Pianos sold on installments. New and second-hand Pianos sold very low. Call and examine Stock.

A. L. BANCROFT & CO., 723 Market St., S. F.

TO FARMERS AND GARDENERS.

We have in stock a full line of Pruning Tools of the following celebrated makers:

SINGLE SHEARS—Dittmar's, Bergner's, Hilger's. DOUBLE SHEARS, OR LIMB
CUTTERS—McElhaney's, Red Jacket.

POLE PRUNING SHEARS, for high limbs, White's patent, mounted ready for use.

ENGLISH GARDEN AND LAWN SHEARS, POLE AND HAND PRUNING SAWS.

DITTMAR'S PRUNING KNIVES, &c.

DUNHAM, CARRIGAN, & CO.,

Successors to

Conroy, O'Connor & Co.,

San Francisco

M. FALLON,

Cor. Seventh & Oak sts.,

OAKLAND, CAL.

Light & Dark Brahmas,
Buff, White and Par-
tridge Cochins,
Spangled, Golden and Silver Polish,
Spangled, Golden and Silver Hamburgs,
Pure White-faced Black Spanish,
White and Brown Leghorns,
Silver Grey Dorkings,
Houdans, Silkies, Black-Red Games,
Bronze Turkeys, Rouen and Aylesbury Ducks.

All from Premium Stock of Best Strains.

Fowls of above varieties for sale; also, Chicks in their
season. Eggs packed with care and sent in rotation as
orders are received. 1v9-16p-tf

PACIFIC OIL AND LEAD WORKS,

SAN FRANCISCO,

Manufacturers of

Linseed and Castor Oils,

OIL CAKES AND MEAL.

Highest price paid for Flax Seed and Castor Beans de-
livered at our works.
Office, 3 and 5 Frontstreet.
Works, King street, bet. Second and Third. 1v9-16p-cow

SEEDS.

PLANTS.

OF EVERY VARIETY.

Fresh and reliable, such as experience and care only
can select.

GRASS AND CLOVER SEEDS, KENTUCKY BLUE
GRASS, HUNGARIAN ORCHARD, ITALIAN RYE,
RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL,
CHOICE CALIFORNIA ALFALFA, WHITE CLOVER,
RED CLOVER, Etc.
Also, RAMIE, JUTE AND TOBACCO SEEDS; to-
gether with a fine and complete collection of TREE
SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGAN-
TEA, PINUS INSIGNIS, Etc.

For Sale, wholesale or retail, by

B. F. WELLINGTON,

(Successor to E. E. Moore).

425 Washington St., San Francisco.

2v7-1y

HEALD'S
BUSINESS COLLEGE,

No. 24 Post Street, San Francisco.

The largest and best Business College in America. Its teachers are competent and experienced. Its pupils are from the best class of young men in the State. It is under the very best discipline. Its scholarships are good in the THIRTY-SIX Bryant & Stratton Colleges. It employs four of the best penmen in the State. It has the largest rooms, the largest attendance, and the most complete system of business training of any commercial school in the country.

For information, call at the office, 24 Post street, or
address, for circulars,
E. P. HEALD,
President Business College, San Francisco.

NEW CROP OF

BLUE GUM SEED.

GRASS AND
CLOVER

SEEDS.

FLOWER AND
VEGETABLE

SEEDS.

TREE AND
FRUIT

SEEDS.

OF EVERY DESIRABLE VARIETY AND OF THE
BEST QUALITY; OFFERED AT WHOLE-
SALE OR RETAIL, BY

GEO. F. SILVESTER,
SEEDSMAN,

No. 317 Washington Street,

24v8-tf

SAN FRANCISCO

Improve Your Poultry,

IT COSTS NO MORE TO KEEP GOOD FOWLS
THAN POOR ONES!

OAKLAND POULTRY YARDS,

Cor. 16th and Castro streets, Oakland, Cal.



WHITE LEGHORNS.

Called THE POOR MAN'S FOWL. Eggs, \$6 per doz; Fowls, \$20 to \$30 per trio; Single Cocks, \$10. A new importation of J. Boardman Smith & Pitkin's celebrated strains just received. Stock guaranteed perfect in markings—white ear lobes, etc. No inferior stock sold at the Oakland Poultry Yards for any money.

For further information send stamp for Illustrated Circular, containing a full description of all the best known and most profitable fowls in the country, to

GEO. B. BAYLEY,

Importer and Breeder of Blooded Fowls.

Box 659, San Francisco.

Purity of all Stock and Eggs sold absolutely guaranteed.



CHAS. P. HOAG,

Nos. 18 & 20 Fremont Street.

Near Market, San Francisco.

THE ECLIPSE WINDMILL

Is the CHEAPEST AND BEST IN THE MARKET, when power and dura-
bility are considered. We are licensing seven Windmill Companies, but none
are allowed to make our particular Mill. Every mill warranted. From two to six
months trial given if wanted. Mills from 10 feet to 45 and 60 feet diameter.
Send for Circular. (See Rural Press of Feb. 13, page 108.) 1v9-16p-cow

California Farmers Mutual
Fire Insurance Association.

Office, 6 Leidesdorff St., - San Francisco.

Directors:

A. WOLF, A. W. THOMPSON, I. C. STEELE,
I. G. GARDNER, J. C. MERRYFIELD, J. D. BLANCHARD,
G. P. KELLOGG, Treas.

Finance Committee:

I. G. GARDNER, J. C. MERRYFIELD, A. W. THOMPSON

Trustees:

J. M. HAMILTON, Lake Col. I. C. STEELE, San Mateo Co
J. C. MERRYFIELD, Solano Co. A. B. NALLEY, Sonoma Co
G. W. COLBY, - - Butte Co. O. S. ABBOTT, S'ta Bar's Co
H. B. JOLLEY, - Merced Co. A. W. THOMPSON, Sonoma Co
A. WOLF, San Joaquin Co. E. W. STEELE, S.L. Obispo Co
J. D. BLANCHARD, Pres't. W. H. BAXTER, Sec'y.

This association is organized for the purpose of af-
fording the farmers of this State the means of safely
insuring against loss by fire, at actual cost of insurance,
without being connected with city risks. a322-tf

PACIFIC RURAL PRESS

Volume IX.]

SAN FRANCISCO, SATURDAY, FEBRUARY 27, 1875.

[Number 9.]

Agricultural Matters at the University.

After attending the meetings of the Academy of Sciences at the University of California on Washington's birthday, we took a stroll through the grounds to see what was being done in the agricultural department. A portion of the grounds, dedicated to practical agriculture, has been thoroughly plowed, graded and otherwise prepared by deep trenching and working over for nursery purposes. Work in the agricultural department, as far as out-door agricultural work is concerned, was commenced on the 1st of June, 1874.

Two propagating houses have been constructed and were ready for use in the latter part of August, 1874, and a commodious and convenient building for work rooms, with suitable benches for potting and handling plants constructed, with storage arrangements for prepared soil, pots, tools, etc., and a suitable office for gardener, and sleeping room for watchman.

The propagating houses are of the dimensions respectively of 30 by 20 feet, and 64 by 15 feet, and in the rear of the latter is a laboratory pertaining to said houses, 64 feet in length by 12 feet in width; these buildings are arranged so as to facilitate the work and so conveniently placed that the whole is easily supervised by the gardener.

The propagation of plants of economic value, as well as such species as are more particularly required for the purpose of illustrating general botany and ornamenting the grounds, in pursuance of the general plan devised by Mr. W. H. Hall, was at once commenced, and such vegetable forms as are valuable to the pomologist, and necessary to illustrate floriculture and arboriculture have already been produced in large numbers. The entire domain belonging to the University includes 200 acres, sloping to the west, a parallelogram in general shape, and presenting quite a diversified topography; its lower portion being about 200 feet above the level of San Francisco bay, and rising towards the east into hills, the summits of which are about 900 feet above the sea level. Some 40 acres are reserved for agricultural purposes and experiments, and the remainder to illustrate the principles and methods of landscape ornamentation, forestry, botany, and allied studies.

A well designed and convenient barn, 36 by 44 feet, and a story and a half in height has been built, and the principal road which traverses the farming grounds has been marked out and partly graded, to facilitate the farm work.

From advance sheets of the "Bulletin of the University of California" we learn that since the propagating houses were ready for use on the 22d of August, 10,000 plants, 20 species of Eucalyptus, 5,000 Acacias of 25 species, 200 species of native and foreign Conifers, also numerous rare forms peculiar to Australasia, South and Central America, and elsewhere, and many species of textile, medicinal and other economic plants have been produced. We may mention 112 varieties of Roses, 13 of Azaleas, 12 of Camellias, 6 of Magnolias, for ornamental purposes.

The planting of a standard orchard, for the purpose of correcting the nomenclature of the fruits already in cultivation, and for furnishing hereafter scions and plants for distribution through the State, as well as for the introduction of new varieties to be distributed as above, has received consideration. The following have already been planted, and it is the intention to still further enlarge the list.

Varities.	Varities.
Apples.....141	Blackberries..... 7
Siberian Crab-Apples..... 14	Gooseberries..... 8
Pears.....102	Currants..... 8
Cherries..... 62	Raspberries..... 34
Plums..... 67	Strawberries..... 35
Peaches..... 89	Filberts..... 3
Apricots..... 22	Asparagus..... 1
Quinces..... 2	Rhubarb..... 16
Noctarines..... 15	Mulberries..... 6
Grapes..... 73	

They have also procured many varieties of oranges, lemons, limes, etc., and all the species of walnuts and chestnuts.

Among the apples are nine new Russian varieties, and the peaches include seventeen of Rivers' new seedlings.

It is not to be expected that with a local climate and soil, all the above can be successfully grown at Berkeley, but it is very probable that many of them can be successfully cultivated, and the University may be able to add more or less to the number of useful varieties now produced in the State.

Many of the students have been employed in

one tail, while others are distinctly formed but are joined together something after the fashion of the Siamese twins. We are told that some of the salmon eggs taken from this State to the East, hatched out in this peculiar manner, as these eggs have done which were brought by rail from the East.

Mr. R. E. C. Stearns, Secretary of the Regents and Superintendent of the grounds, shows commendable zeal in the collection of favorable varieties of fruits and trees, and with

The King-Bird.

The king-bird, or "Field Martin," as it is sometimes called in the Southern States, remains at the North during the spring and summer; and, although men destroy it, Mr. Audubon declares its occasional destruction of a honey-bee, and larceny of a few raspberries and figs, to be the only mischievous acts it commits, while, he alleges, its beneficial deeds are countless, insects chiefly caught upon the wing being its accustomed food. It appears in Louisiana about the middle of March, and continues until the middle of September. Further northward, over the entire country, it comes later and disappears earlier. For a few days after its arrival, it seems fatigued and doleful, and remains perfectly silent; but its sharp, tremulous cry is soon heard over the fields and along the skirts of the woods. It seldom enters the forests, but is fond of orchards, large fields of clover, the neighborhood of rivers, and the gardens close to the houses of planters. As soon as incubation has commenced, the male, full of ardor, evinces the most daring courage, and gallantly drives off every intruder. Perched on a twig in view of his mate, he seems to direct every thought and action to cherish and protect her; and, though he seldom meddles with small birds, yet often flies to their rescue, when he spies a crow, a vulture, an eagle, or a martin making any approach, spreading his wings to the air, and pressing toward the dangerous foe, he commences his attack with fury. Mounting above the enemy, he sounds the charge, somewhat like a watchman's rattle, repeatedly plunging upon the back of his powerful antagonist, and essaying to secure a hold. In this manner, he harasses him with continued blows, and follows him at times for a mile, when, the fugitive having sought refuge in the forest, with quivering wings and trilling notes, the little bird returns exultant to his nest. Audubon says, that the martin alone, of all aerial enemies, inspires him with fear; that, although this bird frequently aids him in protecting his nest and watching over the farm-yard, it sometimes attacks him, and, excelling him in quickness and power of flight, eludes his more powerful blows, and in some rare instances, destroys him. Few hawks venture to approach a farm-yard while the king-bird is near; and even the cat, tormented by his attempts to peck on all sides, retreats from before him to the house.

Fruit Drying for 1875.

We are pleased to note that the outlook for fruit drying, now one of the most important industries in California, is very promising. The circular of the Alden fruit-preserving company shows that this process is still increasing in popularity. The reputation of their goods is becoming still more fixed; their uniform character giving them a value which will undoubtedly remain comparatively free from fluctuations. Returns from the Alden drying establishments of this and other states, are of the most satisfactory character. The coming season will undoubtedly be a busy one with these establishments, especially those in different parts of this State. Arrangements are being made for embarking more extensively than ever in preparing candied fruits of various kinds. Enough has already been done in this line to prove that we can equal the expensive candied fruits of France. This is an important point gained in turning to profit our immense fruit product, besides placing these delicacies within the reach of all classes.

The established success of this process, its adaptability to an extensive scale of working and the uniform character of its products, have aided materially in bringing our great fruit-growing system into working order. It has also done much toward turning the attention of fruit-growers to the cultivation of smaller and more delicate fruits. Of these we shall never have a surplus. Prunes, plums, nectarines and cherries are receiving more attention than formerly, but from present indications the supply will probably never exceed the demand.

We would state here that the price of the Alden evaporating apparatus has been materially reduced within the past year, thus making this system available to smaller communities and private parties.



THE KING-BIRDS.

connection with the work in this department, and the Professor of Agriculture will have the requisite facilities for illustrating in the field, what is taught in the classroom.

The State Fish Commissioners have recently erected a propagating house, and many thousands of ova and young brook trout may be seen in the troughs. It is proposed to build dams at favorable points in the creek and its branches, for the double purpose of protecting the banks and furnishing ponds for the fish. We saw at the hatching house a somewhat unusual occurrence—namely, double fish, or rather young fish one week old, joined together in a peculiar manner. Some of these have two heads and

the assistance of Mr. Ellis, the gardener, has already made marked progress in matters relating to the agricultural department. Mr. Stearns earnestly requests all interested in this department to visit and inspect the grounds, and will be happy to receive suggestions and carry them out as far as the means at disposal will permit. Considerable difficulty has been experienced with the soil, which is hardly adapted for nursery purposes, and this has given a large amount of extra work. However, it seems to us that very good progress has been made in this department, considering that out door work was not commenced until the first of June.

CORRESPONDENCE.

[The Rural Press, in opening the columns of this department to its correspondents, does not desire to lay before its readers anything which is not in keeping with its character and position as an agricultural and family paper. Facts are always thankfully received; and suggestions and matters of opinion on subjects connected with agriculture are also acceptable; though correspondents are to be understood as speaking for themselves and not for the Press.]

Trial of Straw-Burning Engines.

EDITORS PRESS:—On Saturday, February 6th, I witnessed a trial of King & Perkins' straw-burning apparatus, opposite the Court House, Stockton. The apparatus was attached to a Hosley engine with variable cut-off. The engine run a twenty-four-inch mill, grinding barley for feed. They started to grind at twenty minutes past one o'clock; at one twenty-three the belt run off the mill; stopped to put on belt; started again at one twenty-seven, with one hundred and thirty-five pounds steam; two gauges of water. Engine making 240 revolutions per minute. At one thirty-four, steam had gone down to 115 pounds, losing water slowly. At one forty-two, steam 107 pounds; at one forty-nine, steam 105 pounds; at one fifty-nine, stopped with 100 pounds steam, water $1\frac{1}{2}$ inches lower in boiler than at starting. They ground one ton, less eight pounds. The barley was not ground fine, some passed through whole. The man in charge of the mill said he had ground about thirty tons since dressing the stones. The weather was warm and pleasant; no wind; some of the straw was damp. I saw the same engine running about a month ago with wood for fuel. It steamed easily, burning about half a cord of oak wood per day, grinding from 10 to 12 tons. Although a Stockton paper of above date reports the above a success and says that all appeared satisfied, from my experience as an engineer, I consider it a partial failure; for, at the above rate, namely: losing 35 pounds steam, and one and one-half inches of water, in a run of 35 minutes, they would have to stop for steam and run engine light to pump water into the boiler, before the expiration of a run of two hours. There is room for improvement in the manner of feeding the fire with straw. It is now put in with a fork in a large or small wad, as the case may be. To burn straw successfully in a fire-box boiler it must be fed steadily all the time. This can be done by a pair of rollers placed where the fire door now is, and run with a belt from the engine shaft, made to revolve slowly, thereby keeping a small but constant stream of straw going in. King & Perkins' apparatus is said to have done better work at Modesto. I can only speak of what I have seen. On Saturday the 20th, there is to be another trial. If I find it more favorable I shall be pleased to report the same for the benefit of the subscribers of the Press, who I know are much interested in the success of straw burning threshing engines.

J. W. RILEY.

The Tanning Plant.

EDITORS PRESS:—The plant you mention in the Press of Feb. 6, I think, by description, grows here. As to its qualities for tanning leather I cannot say. I frequently in summer break off tender shoots from the stalk and chew them. It is very sour and puckers a person's mouth like alum. But there is a plant which is more plentiful, and is first rate for tanning leather; as good as bark or anything else—so says a practical tanner and currier who has tried it. The gentleman is to be relied upon, for I have known him for seven years; he has been living with me for four years. He has frequently used the plant to tan buckskins since he has been with me, and I never heard anyone give the name of the plant, but it is an evergreen and grows on moist ground.

I wish to inquire the kind of artichoke that is quoted so high in your paper? I raised a quantity last year. If they are the right kind I would like to contract my crop and furnish them in sacks at the depot. Those that I have raised are of pink color and resemble a sweet potato in appearance. I leave them in the ground through winter as they keep there as well as any place. I can dig them at any time. You will confer a favor if you will inform me as to the artichokes, and I will send you a sack of that plant. If you wish the evergreen, this plant is good at any time of the year; the other would, I think, to be good, have to be harvested like any herb, in the season of growth, as it dries like grain, straw, etc. L. T. HEATH.

Verdi, Washoe Co., Nev., Feb. 18.

[Our friend will please accept our thanks for the information in regard to the tanning plant. We do not care at present to have it sent, but will know who to call upon when we do want it. The articles mentioned are evidently of the Jerusalem kind, and are worth from 5 to 10 cents per pound, according to conditions of market. Vegetable dealers, however, are not disposed to contract; they will receive produce and sell on commission for what they can get. The regular standard artichokes are worth from 50 to 75 cents per dozen.—EDITORS PRESS.]

POULTRY YARD.

Fattening Fowls.

The following from the *Journal of Chemistry*, gives the quickest known method of fattening fowls. Whether fowls fattened in this manner would be as wholesome food as if fattened in the ordinary manner, is left for our readers to determine. It is hopeless to attempt to fatten chickens when they are at liberty. They must be put up in a proper coop. And this, like the other appurtenances, need not be expensive. To fatten twelve fowls a coop may be 3 feet long, 18 inches high and 18 inches deep, made entirely of bars. No part solid—neither top, sides nor bottom. Discretion must be used according to the size of the chickens put up. They do not want any room; indeed, the closer they are the better, provided they can all stand up at the same time. Care must be taken to put up such as have been accustomed to be together, or they will fight. If one is quarrelsome it is better to remove it at once, as like other bad examples it soon finds imitators. Diseased chickens should never be put up. The food should be ground oats, and may be put up in a trough or on a flat board running along the front of the coop. It may be mixed with water and milk, the latter is better. It should be well soaked, forming a pulp as loose as can be, provided it does not run off the board. They must be well fed three or four times a day, the first time as soon after daylight as possible or convenient, and then at intervals of four hours. Each meal should be as much as they can eat up clean, and no more. When they have done feeding the board should be wiped and some gravel spread. It causes them to feed and thrive. After a fortnight of this treatment you will have good fat fowls. If, however, there are but five or six to be fattened they must not have as much room as though there were a dozen. Nothing is easier than to allow them the proper space, as it is only necessary to have two or three pieces of wood to pass between the bars and form a partition. This may also serve when fowls are up at different degrees of fatness. This may also serve when fowls are up at different degrees of fatness. This requires attention for fowls will not keep fat and healthy. As soon as the fowl is sufficiently fattened it must be killed; otherwise it will not get fatter, but will lose flesh. If fowls are intended for the market, of course they are, or may be fattened at once; but, if for home consumption, it is better to put them up at such intervals as will suit the time when they will be required for the table. When the time arrives for killing, whether they are meant for market or otherwise, they should be fasted without food or water for twelve or fifteen hours. This enables them to keep for some time after being killed, even in hot weather.

Scurfy Legs in Fowls.

A correspondent of the *Field* writes: "One of my hens, an old golden-spangled Hamburg, is much disfigured by excrescences on the legs and feet. She looks as if she had been treading in dough, and as if the dough had hardened. I examined her minutely to-day and rubbed off some of the scurfy matter. It was removed without much difficulty, but the part beneath was quite raw. Curiously enough, what look like small toes are growing on her feet, and quite a long spur has been developed at the back of one leg. Another hen, a young silver-spangled, shows symptoms of the same disease, and her spurs have grown considerably. The hens show no signs of unwellness. Several of my pigeons have died lately. They mope, gradually grow weaker, and weaker, and at last are quite unable to fly. They linger, some for three days, some longer; but none have yet recovered. I cannot account for the mortality among them. Perhaps you will enlighten me with respect to both fowls and pigeons, and suggest some remedy." To which the editor replies: "The scurfy matter on the legs of the hen is very common in Cochins and Brahmas. It has been examined microscopically with great care by Dr. Moxon and Mr. Tegetmeir, and it has been ascertained that it depends on the presence of a minute acarus allied to the itch insect in the human subject. The remedy is to soak the legs in warm water, so as to remove the scurf without injury, and then apply sulphur ointment, or the ointment of green iodide of mercury may be used, as it is very destructive to acari, and is a specific in mange in dogs. With regard to the pigeons they are probably bred from weakly parents or are too closely interbred."

EVAPORATION OF WATER FROM PLANTS.—So great is the evaporation of water from plants that it was found by Mr. Lawes that a plant of barley of one hundred and seventy-two days' growth, in which it had acquired four hundred and nineteen grains of dry organic matter, had converted into vapor not less than seventeen pounds of water.

CROPS were never looking better in Yolo county. The almond crop in the vicinity of St. Helena will be immense, if not injured by late frosts.

ORANGES measuring $14\frac{1}{2}$ inches in circumference have been taken from the grove of Louis Van Leuven, at Old San Bernardino.

COWBOYS are destroying large numbers of sheep in Calaveras county.

THE VINEYARD.

The Evolution of the Phylloxera.

[Translated from the French for the Rural Press.]

If the researches of Mr. Balbiani, upon the Phylloxera of the oak, have not been forgotten, it will be remembered that the study of this vegetable pest, in the mind of the author, was but the introduction to the Napoleon of the family, the worst and most mischievous of its members—to the *vastatrix* in short—but so difficult is the history of this last named, that after six months of researches, made in the center of the invasion at Montpellier, from the end of May to the 1st of November, the most active period of the insect, the author, in giving an account of his observations in a long memoir, of which we give the best part, acknowledges that the most important facts remain still in the same obscurity as before.

The awakening of the phylloxera, according to Mr. Fancon, who has followed the phenomenon day by day, takes place at the beginning of April. At the end of May, the insect has been some time free from its winter torpor. The laying and hatching suspended during the cold season had begun again, even among the ponderous mothers; and eggs, in process of development, could be seen in great numbers, the first born of the year; easily recognized by their bright, beautiful, golden yellow color. They were not nymphs, their time had not yet come, nor, for a still stronger reason, were they winged insects. Such was at that time the condition of the phylloxeran population.

It is upon the radicles of the plant, that the brood fix their residence, and principally upon the swellings that they have the art, or rather the property, of determining by their punctures upon the extremities of these radicles. Later on, these last being dead, the insects accumulate upon the large roots, and so active is their multiplication, that by September the mass colors the roots a yellow, so uniform, that one might affirm they had been painted with a brush. This multiplication has two causes: First, in order to secure reproduction, the species become all males, then all females; all females fruitful, all eggs second. The laying of the eggs is the second cause, which never occupies more than eight days; and even still less time when the thermometer makes 25 to 30 degrees centigrade. Towards the month of July, a certain number of the young, at the same time that their genital growth continues, swell in front and elongate behind, the thorax and abdomen becoming one, until the shape is like a pear. Then upon their sides, near the middle, appear two little, black appendages, laying flat against the body. Are these wings? No, not even wing coverings, but the rudiments of them; and at the same time that they appear, behind them the trunk expands, till thorax, abdomen and trunk are one. Thus developed, the insect is promoted to the rank of nymph. It is only when the phylloxera has taken this form that it leaves the roots; and coming to the light of day, and on the surface of the ground, the metamorphosis takes place, which leaves it a perfect winged insect.

This has never been found on roots in places that have never been disturbed, or on those which have been extracted from the vineyard. In the groves, where Mr. Balbiani has preserved roots, covered with phylloxera under a bod of earth more or less thick, he has always observed the nymph reach the top of the ground to transform, and even climb higher to the top of the glass cover.

As no one has yet caught one in the act of climbing up the vine or ceiling, we are reduced to the single fact given by Mr. Cornu, one of the delegates to the Academy, who, on a vine at Charente, found a nymph full of life and activity. As to how this insect reaches the surface, whether by the fissures of the soil, or following the ramifications of the roots up to the stalk, Mr. Balbiani has yet to see. The phase of existence which this insect enters when endowed with wings, is yet more difficult to trace. Scarcely has it made its appearance than upon the wings of the wind, or its own, it escapes observation. It could doubtless be confined in a bottle, but it is not from a life in confinement that one can learn its habits when free.

It was on the 25th of August, that for the first time on a vine at St. Saviour, near Montpellier, one was seen, winged and free. It was precisely in the same place that was seen, for the first time, the wingless insect moving on the surface of the ground. The soil is a clayey earth, white, compact and much cracked. For the greater part the winged insects kept in the neighborhood of the stalk, under the partial shade of the foliage. From the 25th of August to the 1st of September, large quantities were noticed each day. At the latter date the number diminished, and by the 4th had entirely disappeared. Where do they go? To what place do the winged phylloxera direct its flight? What becomes of it from the moment when it disappears from the eye, trying in vain to follow its aerial flight? At last, and above all, demands Mr. Balbiani, what is the bond between the colony which they abandon, and that which they go to found.

There is but one resemblance more between the phylloxera of the vine and that of the oak, and it is to Mr. Baldwin that we are indebted

for the knowledge of this. Among the first of these two species, as among the last, the sexual generation is accomplished by the wingless individual, much later than by those with wings. While these last, in the species *vastatrix*, come out in August, if not in July, the former do not appear until October. Except in this particular, the resemblance between the subterranean and the aërian is complete. Besides it is often that the sexual phylloxera is not found upon all the roots in the same vineyard, one vine may nourish hundreds, and another be totally exempt—but there is always enough to sustain the vitality of the colonies.

In a history where there is nothing but vexations for the practical agriculturist, the existence of this sexual generation is an aggravation, since it is not permitted us to hope that organic weakness resulting from a long period of unsexual production, will lead to the spontaneous disappearance of the parasite. And this fact explains how the same colony maintains itself for years on the roots of the same stalk. For a history so incomplete, it is, one might say, very complicated. What would it be if the too technical work of our American entomologist, Mr. C. V. Riley, should be placed before our readers? The number of American species actually known and which the author declares "all good and some doubtful," is 16; all natives of the United States. The description of one of them (the phylloxera religii), shows us that even in this species the insect presents itself under ten different forms. From the hibernating mother, to the first appearance of the winged form, at the end of July, there are at least five generations; and Mr. Riley believes that this winged form presents itself twice each year; that is to say, there are each year two cycles of development.

One would think that we had enough of our own proper species to occupy us, but there is also something of interest in those of the United States; for I see in "nature," that according to that entomologist, all our species have come from that country, even that of the oak, with the vegetation on which they live. However, I find no trace of this assertion in Mr. Riley's note of Dec. 14th.

It is not necessary to say in an article upon the phylloxera that nothing is known touching its extirpation. Mr. Balbiani concludes by a hypothesis of the oak "a kermes" and that of the vineyards; and as they first travel not by isolated individuals, but by troops similar to swarms of bees, he supposes, founding his opinion upon some facts of observation, that that they may be the same, the *vastatrix*. Among these facts we cite the resemblance, as we have seen, between the winged individuals in the habit of clustering around the stalks, and suddenly disappearing, which is, up to this time the last authentic word on their history.

The same analogy exists in their mode of laying. The insect of the kermes, deposits its eggs on the branches of the oak; that of the vine among the branches and leaves. Some experiments in the laboratory, instituted to supplement direct observation, appear to indicate that there is among the female a certain tendency to act in the same manner. But there is little as yet to be depended upon. That which has altogether another value from mere conjecture, is the discovery that the wingless individuals that remain under ground, give birth as well as the winged ones, that take the perfect form only on the surface; a female generation.

The President of the agricultural school at Aix has taken the initiative in an experiment which will prove of immense value. A little below the surface of the ground he has had the vine cut off, then the ground has been worked and sown in grain, and in every way well cultivated. The experiment is on a large scale, and will be a long one, as it will take at least four years to decide whether the phylloxera is exterminated or not. Whatever the result may be, the soil will not remain unproductive as it would be under the method recommended by the Academy, of tearing up the vines by the roots, which would be, to say the least, very inconvenient.

Mrs. J. P. Moore.

IMPROVED CHROMO LITHOGRAPHIC PROCESS.—Messrs. Johnson, of Hatton Garden, London, have invented a new and economical process for producing chromo lithographs. In place of using a special stone for each color, necessitating as many separate impressions as there are colors, the entire subject is drawn upon a single stone and a proof is taken on a thin sheet of copper. This sheet is then cut out carefully according to the desired contour of the colors, and upon each of the portions is fixed a solid block of color previously prepared. The whole is combined into one form, and is printed on an ordinary press—all the colors at once.

POISON IN BAMBOO.—It has recently been discovered that the bamboo contains a dangerous poison, which the natives of Java extract from the cane in the following manner: The cane is cut at each joint, and in the cavity is found a certain quantity of small, fibrous matter, of a black color, which is covered with an almost impenetrable coating of tissue, which contains the poison. If swallowed the filaments do not pass into the stomach, but remain in the throat, and produce violent inflammation, and ultimately death. Experiments are to be made with various kinds of bamboo to test the existence and nature of this alleged poison.—*Nature*.

SEVEN thousand tons of wheat are stored at Hollister.

Irrigating and Other Canals.

A State System of Canals for the Development of the "Field," the "Forest," and the "Mine,"—Its Immense Benefit to California—How the City and the State Would be Enriched.—By a Distinguished Engineer.

What the New York State Canals Have Cost.
The navigable canals constructed by New York State since 1817, aggregate a total length of 907 miles.

The cost of construction to 1874 is.....	\$64,710,832
The cost of maintenance, repairs and collection.....	24,377,108
Total cost of construction and maintenance, etc.....	89,087,940
Receipts from tolls were.....	97,625,065
The actual cost, including the interest thereon, is:	
Total cost of construction, as above.....	\$64,710,832
Total interest on same.....	93,735,554
Total cost maintenance, repairs, and collection.....	24,377,108
Total interest on same.....	27,268,895
Total cost from commencement to completion.....	\$210,093,489
Aggregate receipts from tolls, with interest.....	202,519,510

Present cost to State of the entire canal system..... \$7,473,959

Number and Tonnage Capacity of the Boats.

There are 6,511 boats, having an aggregate of 971,395, the average tonnage of the boats being 160 tons. The age of the present boats is ten years, and the total number of navigable days in ten years is 2,268 days. (In California there would be 3,650 days.)

Cost of Transportation.

Cost of boats complete.....	\$ 5,000
Interest on same for ten years.....	3,500
Repairs, with interest on same.....	2,051
Expense of crew, \$185 per month.....	16,556
Expense of towing, 38 cts. per mile, 79,826 miles.....	30,334

Total for 2,268 days..... \$57,451

Total for one day..... \$25 33

Total per mile..... 72

Average burthen of boats, up and down tonnage..... 156

Actual cost, exclusive of tolls, per ton per mile.....	4.61 mills
The average carriers' charges upon all classes of freight upon the canals, per ton per mile.....	5.65 "
Leaving a profit of.....	1.05 "
Average receipts from tolls.....	4.38 "
Total cost per ton per mile (5.65-4.38).....	10.04 "

Results.

During the 10 years ending 1864, the New York State canals moved 8,175,803,065 tons, average receipts from which were 0.91 cents per ton per mile, as against 2,132,073,612 tons moved by the New York Central Railway, the average receipts of which were \$2.60 per ton per mile; and 2,587,274,914 tons moved by the Erie Railway, the receipts from which were \$2.22 per ton per mile. The average of both railways being 2½ times the cost upon the canals.

In 1867 the business of the canals was as much as the aggregate of the three years (1865-1867) of the New York Central Railway.

It is calculated that the revenues of the canal will, with the tolls at the present low rates, extinguish the debt yet to be redeemed in the cost of these works in less than fourteen years, and that a tax of seven and a half mills upon the dollar of assessed property would discharge it in a single year.

The State of New York has, since 1825, unaided, and without embarrassment, or an undue extension of its credit, and when its resources and wealth were undeveloped, expended these many millions in the construction, maintenance, and working of the canals. Notwithstanding that the canals are closed annually for about five months, by Jack Frost, they carried for the ten years previous to 1870, about 24 per cent. more freight than the New York Central and Erie railways together, which were working all the time. It would be impossible for the State to prosper without this system of canals, and the railways cannot supplant them and absorb all the internal carrying trade of the country. The "Field," the "Forest," and the "Mine" yield products which are bulky and of small value compared with their weights, and they do not require to be transported at 15 to 20 miles an hour. At a speed of 2½ to 3 miles an hour such goods can be carried on canals at such low rates that no railroad could compete with them.

Both are, however, necessary for the prosperity of the State, and both are of mutual advantage. The railroads are necessary for passengers and for perishable goods, for which the canals are not available. Notwithstanding the closure of the Erie Canal by frost for so many months, it has moved annually 6,000,000 of tons which is more than the full work of six double-track first-class railways, and yet it is only 70 feet wide on the surface, and has a depth of seven feet of water. What would Chicago, Milwaukee, Cleveland, Rochester, Buffalo, Syracuse or Utica have done, or have been without the Erie Canal?

This canal transports, in eight months, twice the whole foreign tonnage of the port of New York. Governor Morris, the projector of the Erie Canal, in writing to Mr. Parish in England in January, 1801, showed his wonderful foresight. He says: "Shall I lead your astonishment up to the verge of incredulity? I will. Know you that one-tenth of the expense borne by Britain in the last campaign would enable ships to sail from London, through Hudson's river, into Lake Erie. As yet, my friend, we only crawl along the outer shell of our country.

The interior excels the part we inhabit in soil, in climate, in everything. The proudest empire in Europe is but a bauble compared to what America will be in the course of two centuries, perhaps in one."

This being the showing of the New York State canals, let us now see what the State of California might do in the same direction, combining irrigation with cheap transportation. We have the New York State canals as a precedent of financial success, notwithstanding the many mistakes made and the political influences which have increased the cost of the same.

System of Canals for the Plains of California.

The San Joaquin and Sacramento together form the great valley of California. This is the great backbone in the future prosperity of the State, and already the source of an immense business to the city of San Francisco. The orographical features of the San Joaquin valley, on the west side, must always prevent the rain fall from being sufficient to mature the grain crops, and to afford permanent pasturage.

Irrigation is therefore an acknowledged necessity, and until the lands can be watered by artificial means, this vast area of rich and easily cultivated land must remain more or less unproductive and uncultivated. A main canal connecting Kern and Buena Vista lakes with Tulare lake, and Tulare lake with Suisun bay, will open out the entire western slope of the valley and bring San Francisco in direct communication with the extreme southern portion of the valley.

Again, a main canal from Suisun bay, along the western slope of the Sacramento valley to the junction of the Sacramento and Pit rivers, and the improvement of Pit river to its connection with Goose lake, and the connection of Goose lake with Klamath lake, and Klamath lake with the Columbia river along the Des Chutes valley for purposes of navigation and irrigation, is a project deserving the attention of the State and of action by the next Legislature.

Some Estimates.

The following table of the cost of transport per mile is deserving of careful consideration:

	Mills.
Ocean, long voyage, per ton per mile.....	1
Ocean, short voyage, per ton per mile.....	2 to 4
Lakes, long voyage, per ton per mile.....	2
Lakes, short voyage, per ton per mile.....	3 to 4
Rivers—Hudson, and of similar character.....	2.5
Rivers—St. Lawrence and Mississippi.....	3
Rivers—Tributaries of the Mississippi.....	5 to 10
Canals—Erie.....	4
Canals—Ordinary size.....	5
Canals—Ordinary size, great lockage.....	6 to 8
Railroads—Transporting coal.....	6 to 10
Railroads—Not for coal; favorable grades.....	12.5
Railroads—Not for coal; steep grades.....	15 to 15

The cost of movement on a canal depends upon the relative sectional areas of the boat and of the canal; upon the actual size of the two, and upon the elevation to be overcome. The increased cost of transportation on the New York canal, due to the suspension of navigation from frost, is an item that will not exist in the great valley of California system of canals. The actual cost (not charge) of transit by steam on the Forth and Clyde Canal, including everything (not tolls), is 1-20 cent. This canal is closed for some time by frost.

If the main canals cost \$15,000 per mile, and carried a million tons, the tolls would be 1-40 cent to cover 7 per cent. for interest; and taking the cost of transit at the same rate, the total cost would be 1-20 cent against 1 to 2 cents, the total cost by rail. But in the case of canals along the western slope of the San Joaquin and Sacramento valleys, irrigation would be combined with transportation, and the sales of water for irrigation and mill power (if the canals are owned by the State), would enable the tolls for transportation to be very low, and consequently the State of California could possess a system of canals that could be operated to far greater advantage in the interests of the public than the New York canals have been. If the country required speed, of course it could have it, by a greater expenditure on the protection of the canal-banks, and by an increase in the rate of tolls. The Hudson and the Clyde are worked at 15 to 18 miles an hour, and there is nothing to prevent a higher speed, except the expense of works of protection. But the question is, how can we carry a million or two tons a year on a certain line at 1.10 to 1.20 cent per ton per mile, and this can only be done by large navigable canals.

Advantages of Canals Over Railways.

Canals protect the country from drought, and railways do not.

Canals carry at rates which make even grain at one cent a pound remunerative, although grown 300 miles from tide-water; this railways cannot do. Canals increase the value of lands several hundred fold where the rain-fall is always deficient, and induce immigration and cultivation on such lands. Canals in such districts of deficient rain-fall, or where the rains occur during only a few months of the year, by encouraging cultivation and immigration, also develop the railway system, and make the same a necessity for the transit of passengers and of perishable goods.

Advantages to the State.

By the early completion of such large canals for the purposes of irrigation and navigation the State will increase the taxable property of the country, and so reduce the pressure on the present population. Merchants and farmers would not then be discouraged at the present low price of wheat, because if the State canals could convey at 0.5 cent per ton per mile, the

average cost of moving wheat a distance of 200 miles, would be one dollar a ton. The advantage in having such works carried out by the State consists, moreover, in the fact that the credit of the State enables it to obtain loans at a lower rate of interest than private companies can, and there is therefore, no necessity for burdening the country with taxes to pay for works of this character, which will much more than pay for themselves.

No sensible or well-read man can doubt the financial success of well laid out and carefully-constructed canals for irrigation and transportation. The New York canals are a proof of the latter item, and the canals in Europe and India are overwhelming proofs of the former.

"Popular Errors."

Many persons argue that the time is not yet ripe for such a system of canals; that the country is too sparsely inhabited. Such persons forget the simplest principles of the traffic question, the first point of which is that communications make traffic. Afford the communication and population will flow in, and traffic must ensue. If the drought of 1864 and of 1871 was so terrible in these plains of California, what would not similar droughts be with the present population therein? If the farmers and cattle and sheep owners can be secured from their present misery and anxiety, whenever signs of similar drought are present, will it not tend to induce a better and more permanent settlement of these great interior plains? The loss of thousands of sheep and cattle from starvation is a direct loss to the entire community. A State charge of even five cents a head a year on all the cattle and sheep of these plains, for the purpose of developing a system of irrigation and cheap transportation, would be a boon to the stock men compared with the present risks they now run from periodical droughts.

What Irrigation Canals Would Do.

A general system of irrigation and canals for transportation by the State would do more than anything else to break up the present evils arising from large land-ownership.

It would make the lands too valuable to be held, as now, for stock-grazing, and the consequent increased assessments from \$2 to even \$6 would force the large land-owners to divide the lands into small farms. At the same time there would be an immense increase in the number of sheep, cattle hogs and horses raised on the same land. Although the State's credit and sovereignty is necessary to raise the loans and to enforce the proper working of the canal system, yet in some way or other the private land-owners whose estates are improved should be made liable by law to pay for all that is done to improve the land. If the State were to make advances for works of permanent value to the reproductive powers of any section belonging to private parties, such advances should be repaid by installments from rents and sales of land at such rates as shall extinguish the debt in a reasonable number of years; and if the landlord should be unable to repay such advances, the State should have the power to foreclose its mortgage on the land.

Take the case of the west side of the San Joaquin valley, from Tulare lake to tide-water, at, say Martinez. Here we have about 500,000 acres of land, well adapted, by the quality of the soil and the evenness of its surface, for irrigation. The irrigation of this large area is chiefly dependent upon the waters of King's river and Tulare lake. The settled portion, in farms of reasonable size, is in the lower part of the valley, and there are not much over 10,000 acres, out of the 500,000 acres, in the hands of small farmers. These unfortunate parties are therefore at the mercy of the large land-owners who own the lands between them and the necessary water-supply.

Now, if the State would amend the Constitution at the next general election, so as to enable it to undertake the canal work, these small farmers would in three years have a system of irrigation and a canal available for transportation. The large land-owners would also find it to their advantage to have the State system of irrigation laid out on one or two sections in width along the line of the main canal; and unless they were unusually short-sighted in regard to their own interests, they would readily support the Legislature in any such enterprise. These 500,000 acres could then, in the course of twenty years, be divided into a large number of farms, capable of supporting a population of 100,000 where now there is less than 5,000.

The New York State, in Article 7 of the Constitution, provided for the construction, maintenance, and regulation of the canal system; why cannot California do the same and combine irrigation with cheap transportation? The natural facilities are immense. Nature, in the provision of Tulare lake, the wonderful evenness of the country, the constant supply of water in the snows of the Sierra Nevada, and in the climate, has done nine-tenths of the work. The State alone can have the power to control the necessary system of irrigation and drainage, so necessary in connection therewith; and there are so many millions of acres in need of irrigation and reclamation, and which require to be dealt with on a complete system that it is impossible for private enterprise to work it out. Whether the people irrigate or not, they have the immense benefits of navigation, drainage, timber, cheap food and forage.

Benefit to Mines—Great Possibilities.

The mining districts will be likewise benefited in the increased cheapness of bacon,

beans, etc, which are now imported from the East.

No country in the world could furnish more pork and bacon, cheese, honey and flour, than the San Joaquin valley, if the advantages of irrigation were available. The portions of the State which are not dependent on irrigation need not hesitate to support the action of the State Legislature in the direction of canals, because they must be benefitted indirectly if not directly. The lumber business of Mendocino, for instance, will be largely increased, in the supply of fencing and building lumber. The mining counties will obtain their bacon and beans, etc., at a very considerable reduction on present rates. San Francisco will be brought in direct water communication with this vast back country, and, therefore, cannot fail to reap largely from such facilities. The State could make contracts with private companies to construct the canals, and save in that way considerable outlay and trouble. But it should exercise a constant control over the distribution of the water and in the proper adjustment of the canals and system of ditches. The general question of irrigation by the State is one that well deserves the attention of every Californian.—*Bulletin.*

USEFUL INFORMATION.

COLORS IN CARPETS AND UPHOLSTERY.—Put a good amount of color on ceiling, not, however, making it so dark as to bring it too close to the eye. The carpets must be either lighter or darker than the walls. This is following out the artist's rule, to make either background or foreground run into the figure. If this is not done in painting, a woman in white satin, for instance, against a dark floor and dark walls, will look like a cut-out figure stuck on, and the same sort of a result would occur in rooms. As in ordinary life, dresses are dark in color, where a light wall tone has been recommended, the carpet will have to be darker than the walls. Not too vivid in color, however, and, of course, no flowers, ferns, birds' nests, and such like fearful things. Furniture and hangings should not be too much alike in color; have, say, the carpet one tone, the coverings of furniture another, and the curtains and other hangings a third. Have summer and winter hangings and furniture coverings; those for the former light and cheerful, the others with more warmth, and suggestive of comfort and home life. A table-cloth, occasionally a chair, or a rug, may supply a bit of effective contrast with prevailing hues of hangings, etc., and a spot of vivid color in a vase or some small hanging will complete the formal decoration of the room.—*Brit. Arch. Asso. paper.*

WRITE PLAIN ENGLISH.—A very common mistake with writers on scientific and mechanical topics for popular perusal, is the indulgence in technical terms and algebraic formulas to an unnecessary extent. Such writings often fall far short of comprehension by the readers to whom they are addressed. It does not need that the scientific writer should "stoop to conquer," or simplify his lucubrations to a childish degree, but good plain English, which persists in calling a spade a spade, should be used in all cases, leaving mere jargon of nomenclature to the society meeting, or the scientific quarterly. It is no disparagement to working mechanics that they do not generally understand these things, since it is sometimes a matter of doubt whether the writers do themselves.

TO BLEACH FLANNEL.—Flannel which has become yellow with use may be bleached by putting it for some days in a solution of hard soap to which strong ammonia has been added. The right proportions are one and a half pounds of hard curd soap, 50 pounds of soft water and two-thirds pound of strong ammonia solution. The same object may be attained in a shorter time by placing the flannel for a quarter of an hour in a weak solution of bisulphite of sodium, to which a little hydrochloric acid has been added.

VAPORIZING IRON.—According to Professor Langley, five thousand tons of iron is vaporized every year by the furnaces in Pittsburg, passing off through the chimneys, and this remarkable fact he uses as a measure to indicate the amount of the sun's heat. The volatilization of the iron is accomplished by what is a very small quantity of coal compared to all that the Pennsylvania coal fields contain; and yet the whole of the coal estimated to lie within that State would maintain the sun's heat only a small fraction of a second.

WICKS IN KEROSENE LAMPS.—The unsatisfactory light frequently given by kerosene lamps, is often due to impurities which have collected in the wick. The filtering of several quarts of oil through a wick, which stops every particle of dust in it, must necessarily gradually obstruct the pores of the wick—consequently, although a wick may be long enough to last some time, its conducting power may be so impaired that a good light cannot be obtained.

HOPS AND HOP-STALKS.—In Sweden a strong cloth is manufactured from hop-stalks. The stalks are gathered in autumn, and soaked in water during the whole winter. The material is then dried in an oven and woven as flax. The buds of hops can be used as an esculent, and when boiled will do as a substitute for asparagus. The tendrils, when young, may be used in the same way.

PATRONS OF HUSBANDRY.

STATE GRANGE HEADQUARTERS.

I. G. GARDNER, State Agent; Executive Committee Rooms; Fruit Growers' Associations, and Farmers' Mutual Life Insurance Company, all at No. 6 Liederdorf street. W. H. BAXTER, State Secretary, at Grangers' Bank, 416 California street, S. F.

Grange Clubs for the Rural.

The Secretary (or some other Patron) is invited to act as club agent for the PACIFIC RURAL PRESS in every Grange. Circular and sample copies sent free. Five or more names will constitute a club, at the rate of \$3 a year. No new subscriptions will be taken without payment in advance. We will pay the postage after Jan. 1st, 1875. All club subscriptions in Granges should end on the last day of the month. Old subscribers may join the club by paying the Secretary up to club dates. Every Patron farmer should read a reliable agricultural paper. We need the support of all on this coast. Help the Secretary (or club agent) to make up a large list in your neighborhood. Don't delay.

NOTICE TO STOCKHOLDERS OF THE GRANGERS' BANK OF CALIFORNIA.

At the meeting of the Directors, on Feb. 9th, the following resolution was passed:

That all assessments due and not paid on Feb. 1st, 1875, shall be charged interest at one per cent. per month from that date till paid. It will be to the interest of all delinquents to give this notice prompt attention.

Also the following resolution was passed:

That on all stock taken on and after the first day of April, 1875, a premium of one per cent. per month will be placed, reckoning from Aug. 1st, 1874, on all assessments payable up to the time the stock is taken.

F. A. CRESSEY, Sec'y.

San Francisco, Cal., Feb. 9th, 1875.

Secretaries will be supplied with a printed list of subscribers for this paper upon sending a list of post offices within the range of their Grange. Also with blank reports, etc., for clubs.

Grange Directory.—A full list of officers of the State Grange, Deputies, names of Councils, subordinate Granges, Masters and Secretaries will appear in this department on the first Saturday of each month.

The National Grange.

First Day.

We have received several copies of the *Charleston Daily News and Courier*, which appears to have published quite a full report of the proceedings of the eighth annual session of the National Grange, P. of H., which was lately held at Freundschaftsbund Hall in that city. Unfortunately only a portion of the issues have come to hand, hence we are unable to give a full report of the proceedings.

The Grange assembled on the 3d inst., and was opened in due form; Worthy Master Dudley W. Adams in the chair.

Bro. Thomas Taylor, Master of the State Grange of South Carolina, made an appropriate address of welcome to the Grange, to which Bro. Smedley, of Iowa, made a suitable response. The order of business adopted at the seventh annual session was ordered to be used at the eighth session, after which the annual address of Worthy Master Adams was pronounced. This address will be found published in full in another column.

The lecturer, G. A. Thompson followed with his annual report, after which the usual standing committees were appointed. We notice that Bro. Hamilton, of this State, was placed upon two committees—Trials and Appeals, and the Executive Committee's Report; Bro. Clark, of Oregon, was also placed on the latter committee. Bro. Tenney, of Colorado, was placed on the committee on the Lecturer's Address.

The Citizens' Reception.

The citizens of Charleston, through the Master of the State Grange of that State, invited the National Grange to meet and be formally received and welcomed by them. The reception took place on the evening of the first day of the session at the hall of meeting. This reception was a most glorious and cordial welcome, and was participated by many of the leading and most influential citizens of Charleston and the State. The meeting was presided over by Hon. Wm. D. Porter as chairman, assisted by a long array of vice-presidents. A large number of ladies were in attendance. The addresses on both sides were numerous and cordial. We append the following extract from the address of welcome by the chairman:

We are met to give you a friendly greeting to interchange views with you, and try to arrive at a better knowledge and appreciation of the people and resources of our respective regions, and of their proper relations. On behalf of Ashley Grange, and the various Granges of the State, and in the name of the people of Charleston and the State of South Carolina, I bid you welcome to the hospitalities of this old metropolis. You have taken upon trust, and you shall not be disappointed. Of your own accord, by a unanimous vote, and without regard to our importance, numbers or relative industries and commercial rank, you have selected this city as the place for the eighth annual meeting of the Supreme Council of your great and influential organization, which counts its Granges by tens of thousands and its members by hundreds of thousands. We thank you for the compliment, and greet you with a cordial greeting. Whether you come from the communities of the North and East, famous for commerce and the arts of civilization, or from the young and bounding States

of the West, which touch the waters of the great lakes, and stretch away to the golden gates of California, the seats of population, productive wealth and future empire, or from the more kindred regions of our own South and Southwest, whose broad fields the great staples of cotton and rice cover with a garniture of mimic snow and gold. From whatever part or section of the Union you come, one and all, we bid you welcome to Charleston, its hospitalities and its homes. You will not find us like other more favored cities, loaded with luxury and wealth; for the burning ploughshare of war has passed over us, and the grinding exactions of a peace, not better if not worse than war, have consumed our resources and depressed our recuperative energies. But you will find true hearts, comfortable, happy homes, and a people who, whatever their faults, are open and above board in their dealings, who mean what they say, and say what they mean; and who, whatever they may do to their enemies, never turn the cold shoulder to their friends. You come as friends, and, therefore, as friends, in the name of this people, again we bid you a cordial welcome.

You are the agriculturists. You break the earth and compel from it subsistence, comfort and diffusive wealth, which the God of Nature has implanted there, and which He has commanded us to seek with the sweat of our brows. Yours is the primitive occupation; and, after all, it is the most healthful and innocent, the noblest and most useful. Commerce and manufactures are, really, only the handmaids of agriculture; for without the material that agriculture supplies there would be nothing for commerce to distribute or manufactures to work upon. You, too, are the most numerous class. It was, perhaps, this consciousness of power that helped to keep agriculturists aloof from association. Individuality, independence has always been a striking characteristic of the planter and farmer. But surely there is no body or class better entitled to associated counsel and effort, if they deem it expedient for the protection and promotion of their interests. And your objects, so far as we understand them, are salutary and patriotic. To cultivate fraternal feeling, to establish a closer brotherhood, and advance its moral and material welfare, to break the power of rings and monopolies, to extend and quicken and cheapen transportation, to bring distant parts of the country nearer each other, and promote a better knowledge of each other's feelings, wants and grievances, to put producer and consumer into more immediate connection, and, in a word, by associated counsel and effort, to protect the rights and advance the interests of the great agricultural interests of the country; these are honest objects, and none can gainsay them. Down here at this little outlet to the ocean, we are mainly commercial; but we have sense enough to know that agriculture and agricultural welfare is at the bottom of all commercial prosperity. Besides all this you have your *arcana*, your secrets; but we do not seek to penetrate them. Who has not secrets must be more or less than human. And you have all reasonable certainty for the preservation of your secrets, since we learn that you have taken the ladies into association to help you keep them.

The eloquent speaker made some brief and most appropriate references to the revolutionary and later events which had transpired at and around that city, and again bidding them "welcome, thrice welcome," sat down amid a tumult of applause. Worthy Master Adams responded as follows:

"It is with unfeigned gratification that the National Grange receives this cordial welcome from the people of Charleston. And permit me to say, sir, that it gives us pleasure not only on account of the kindness which prompts it, but also for the very graceful manner in which it has been tendered. We come here from the center and circumference of the Great Republic, on agricultural intent, on improving the condition of our calling. Yet, while we are individually connected with agriculture, we fully realize that our permanent prosperity is indissolubly interwoven with all the great industries. While it is our particular mission to build up agriculture, yet we would not do it on the ruin of any other legitimate business. While we would see our Southern fields whitening with the fleecy cotton, we would also hear the deep bass of her waterfalls, accompanied by the sharp treble of a thousand busy spindles. While we would hear our mountains and hills vocal with the lowing of herds, we would behold their crags lurid with the glare of furnace and forge. While we would see on the great plains the harvester sweeping down the golden grain, we would bear hard by the whistle and clang of the artisan who formed their cunning mechanism. We would see the locomotive on mountain and vale, and steamers on every stream. We would see rich cities on river, mountain, and by the sea, being centers of commerce, science, and the arts. And every sea, in every clime, should be ploughed by deep-laden ships, flying at their peak the brave old flag.

Sir, we accept your welcome as a token of friendship, peace, unity, and reciprocity every word from your tongue, every pulsation of your heart. May this meeting and the associations here formed weave one more golden thread into the cord which unites our common country."

Union and Fraternalization.

Quite a number of other addresses were made in the same spirit as the above. In order to show the general spirit of union and fraternalization which prevailed, we give a few extracts from the remarks of several other speakers.

Master Smedley, of the Iowa Grange, in the course of his remarks said:

"I love my country. I love every part of it, and I venture to say that every representative has had his heart warmed and his impulses quickened by the warm welcome we have received from our friends in Charleston here today. The object of our Order is to make this great nation one great brotherhood, and to do this we must not only be drawn together by fraternal feelings, but by a union of interests. As I said, our interests and your interests are equal, and we wish to join them together. Let us, friends of South Carolina, and of the brotherhood in this broad nation, work together in this task we have undertaken; let us try to make the people understand each other, their relations to each other and to their country."

Master Dudley T. Chase, of the New Hampshire State Grange, said:

"There is one thing we must have, and that is more ready facilities for communication between New England and the South. We have had a very wrong idea of the Southern people. We have been led to believe that they were a set of deadly enemies, filled with nothing but hatred for us, but we have found things very different. I wish every Northern man could come and see for himself how wrong our impressions have been. We should feel that we are one country. We should feel that Mason and Dixon's line is swept entirely from existence. [Applause.] We come amongst you, as I say, hardly expecting such welcome, and all find you ready to restore that harmony which never should have been broken between the North and the South. I hope soon to see better times. We must depend more upon ourselves than upon the Government to protect us. Give us our equal rights and we will protect our civil rights." [Applause.]

Mr. Samuel E. Adams, Master of the State Grange of Minnesota, spoke as follows:

"It is to be hoped that the grand agricultural interests of the whole country shall fraternize. The monopolies of the land are fought in the North and West as well as the South and East; the advantages accruing to the North from co-operation and combination are equally attainable and enjoyable in the South. Our course is yours, and yours ours, with this difference, however, at present, that we are relieved from bayonet state-manship.

I trust that through the instrumentality of our Order we may become better conversant with each other's wants, necessities and wishes, and that the present burden of menace and military domination will give way to the establishment of union and harmony in our land, through the exercise of your own local pride, and the free and frequent association with your brethren and sisters of the North. I firmly believe that a new era has dawned upon this country, whereby the animosities of the past shall be consigned to the tomb of oblivion, and the friendships and fraternal sympathies of a united land become green and perennial as your own pismetto tree.

If this, then, be the glorious mission of our Order, that no contention shall exist among us, save that noble contention, or rather emulation, of who best can work and best agree; if a restored and happy people can be brought out of the present dark and chaotic condition of affairs, let us all, with warm hands and loving hearts, fervently say, God speed it." [Applause.]

Mr. Mortimer Whitehead, of New Jersey, followed with a few remarks expressing his gratification in finding the people of the South so different from what he had expected. He said "the time is not far distant when there will be no North or South, East or West; we will be one common country. Our Order it is that will work these changes. We are Patrons, and we will do more good, a thousand times more good, than all the bayonets sent to the South to quell imaginary Ku-Klux and banditti."

The Question of Transportation

Was quite freely discussed, and a strong feeling manifested for a cheaper means of communication and transportation between the various distant sections of the Union than now exist. Major Theodore G. Barker, a prominent citizen of Charleston, not a member of the Order, spoke at considerable length on this point. He said:

We gladly avail ourselves of this visit which you, who come here in furtherance of a great mission—the interests of the husbandman throughout this broad land—to ask you, in your own and in their interests, as well as the interests of Charleston, to consider this fact, and to bear back with you to your homes, and to the local councils of your Order, the assurance that there exists in Charleston a daily increasing and most earnest determination to remove the physical and other barriers which keep your own seaport at a distance from your granaries and barns, to shorten the time, to lessen the distance between Charleston and the West, to cheapen the transportation of your commodities to the ocean, to open a new outlet for the fruits of the husbandman of the interior to the demand of the world, and to bring home to you from Southern Europe, Asia, Africa, South America and the West Indies, by shorter and safer lines of ocean transit, all the varied imports which you need.

We indulge no spirit of rash prophecy when, applying to the territory south of the Potomac, Ohio and Missouri rivers, now sparsely settled, the same laws of settlement and development which created the great States of Ohio, Indiana, Michigan, and their Northwestern sisters, we predict, in the next decade, the rapid development of a closely peopled, free labor empire, extending south of those rivers to the Gulf, and

across the continent from the Atlantic to the Pacific ocean.

A popular impression has gone abroad that the Grangers' movement has its origin and life in a contest of interest between the farmers of the West and the railroads, and represents a resistance, by combination, to the oppressive railroad monopolies, which hold the Western farmer in subjection to their tariff, and rob him of his profits. Without entering upon the merits of this question, we of the Southern States, and especially the South Atlantic ports, who desire to set up our railroads and seaports in rivalry with those north of the Potomac, congratulate ourselves that we are not involved in the quarrel between your Order and these established railroad monopolists, and we commend to your body that the truest mode of warfare with your oppressors, if they be so, is in encouraging new, and shorter, and therefore cheaper lines of transportation to the ocean.

Being an outsider and uninitiated in the purposes of your Order, and forming my idea of its aims solely from a casual reading of the newspapers, I realized considerable embarrassment, when called upon to assist in these proceedings, in the effort to discover the secret spring of action and sympathy in the aim of the Order to which I should address my remarks. I have, however, learned enough from the words of the gentlemen of the Order who have spoken tonight to see that there are purposes and aims which furnish a subject for careful study and contemplation to the political philosopher and statesman.

The principle of fraternization alone, which you propose is enough to commend your Order to the sympathies of all classes and interests in the land.

Second Day.

We have not received the report of the second days proceedings.

Third Day.

The Grange assembled on the third day, and after some general business, Bro. Jones, of Arkansas, presented a resolution from the Grange of his State calling the attention of the National Grange to the importance of sending an agent to the various manufacturing cities of Europe, and moved its reference to the committee on the good of the Order. It was so referred.

An Invitation to Meet in San Francisco.

Bro. Hamilton, of California, communicated the invitation of the Patrons of Husbandry of California and Nevada for the National Grange to hold its ninth annual session in San Francisco, and moved its reference to the committee on finance, to report on the expediency of accepting the said invitation. It was so referred.

Reception by the Chamber of Commerce.

The Grange closed its proceedings to-day at 1 o'clock, P. M., to accept an invitation from the Chamber of Commerce, to visit the members of the Chamber at their rooms. It was a novel incident in the history of the time honored society, to be graced and honored by a visit from so many of the softer sex—the lady Grangers. The attendance of Patrons and members was large, and the welcome hearty and sincere. Mr. W. St. J. Jervey, on the part of the committee, presented the visitors to President Tapper, who received them with a neat and pertinent address, closing as follows: "I desire to make one moral reflection to the gentlemen present. I cannot resist the humiliating thought, in this great presence of vegetarians, that 'all flesh is grass;' and however mortifying or mortuary may be the comparison, yet 'grass we are, and unto grass we must return.' The green growth upon the battlefield, and over earth's vast cemetery, only renews the existence of man and horse to fight over again the battle of life, and the sanguinary strife of kings and of nations.

I am not preaching a sermon. It is only an impromptu thought, based upon our common humanita and vegetable origin, that as a touch of nature makes us kind, so a grain of Southern seed dropped into Northern hearts here present, may fructify and grow to a flower of love and charity towards us of the South in our forlorn and prostrate condition.

Again, ladies and gentlemen, in behalf of the merchants and workmen of Charleston, I bid you cordially welcome."

After the conclusion of the President's remarks Col. Thomas Taylor, Master of the State Grange, introduced Mr. J. W. A. Wright, Past Master of the State Grange of California, who responded as follows:

Mr. Wright's Address.

Mr. President and Gentlemen of the Chamber of Commerce: As representatives of the agricultural interests of America we heartily accept your cordial invitation and welcome to this hall, dedicated to our general commercial interests, and especially to those of this "City by the Sea."

If there is ever a time in the lives of earnest men and women to justify profound reflection; if there is ever a time to justify the utterance of deep and feeling words, it is at such a time as this, and during such scenes as we are passing through at this session of the National Grange. Let us yield for a time to the inspiration of the moment, and let our hearts go out to each other in kindly sympathy.

What have we been spared to witness in the historical city of Charleston? Representatives of the Patrons of Husbandry from every part of our land assembled and ready to consult and act for the general welfare.

Fellow Patrons and friends of South Carolina, we are here to greet you and to cheer you, we

trust, by glad tidings from almost every State and territory of our country. From the distant shores of New England, from Maine, New Hampshire, Vermont, and Massachusetts; from all the Middle States and from Old Virginia; aye, from all this Atlantic coast where the feet of our ancestors first pressed this soil; where their steady blows first felled our forests; where their ploughs first turned their furrows, and their hands first reared our cities, we come to greet you.

From the mountains and valleys of Oregon, Washington and Idaho; from California, Nevada and Colorado, which are already noted among you for their various products, commerce and manufactures, although the sun of modern civilization has shone upon them for scarce a quarter of a century, we come to greet you. From the cattle covered plains of fertile Texas, from this broad cotton-belt of ours; from the vast grain growing regions in the valleys of the Mississippi and the Ohio, and along our great northern lakes, we come, as the representatives of one brotherhood, to greet you with fraternal sympathy and kindness.

At this meeting for friendly intercourse, Mr. President and gentlemen, it is well to inquire what are some of the mutual interests of the two great classes of our people whom we represent. Among the mutual interests of trade and agriculture are, we think, cheap transportation, cheap money, and an honest administration of our government, city, county, state and national. We would call your attention to the fact that this Order of ours is eminently conservative. If there are any three words that most fully express its principles in all their hearings, when properly understood, they are perhaps the words, TRUE CONSERVATISM CRYSTALLIZED.

Our Order seeks in all things "the golden mean," and then wishes to pursue it, avoiding all extremes alike.

If any evidence is required of our conservatism, we beg leave to refer you to our declaration made at St. Louis a year ago, in which the following assertion occurs: "We believe that sectionalism is, and, of right, should be dead and buried with the past. Our work is for the present and the future. In our agricultural brotherhood and its purposes, we shall recognize no North, no South, no East, no West."

The record made by our Order during the past year clearly proves that our brotherhood, wherever it exists, have emulated each other in exemplifying this principle.

We also declared that "We desire a proper equality, equity and fairness; protection for the weak, restraint upon the strong; in short, justly distributed burdens, and justly distributed power."

It was asserted in regard to our business relations, that the object of our work is to secure in every way "legitimate transactions, legitimate trade and legitimate profits." This but expresses the desire of every honest trader, every honest farmer, every honest citizen of our land.

All these principles include the interests of trade as well as the interests of agriculture.

We believe, Mr. President, that the oftener we can meet as we do to-day, the more closely we can study, and the more clearly we can understand the mutual interests of trade and of agriculture, the more will we be convinced that the interests of the two classes we represent, should be co-operative and not antagonistic.

I shall not detain you longer by these remarks, but allow me to express the hope that the results of this meeting of the National Grange in Charleston may be fraught with much good for our entire people.

We have reason, Mr. President, to be grateful to the Giver of all Good, that we have lived to see these representatives of the sons of toil, from every part of this goodly land of ours, consulting in harmony for the common good of our common country, on the soil of South Carolina.

May the inspiration of these moments of good feeling continue with and guide us in our future lives, and unite us all with indissoluble bonds.

May the spirit of the mighty past rest upon us, and by its experience and wisdom, aid us to avoid all hurtful errors, and bring our labors to a successful issue, and may we, by the words and acts of this session win for our noble Order and its mission, even more than in the past, the confidence and affection of the American people; once more, we trust, by the efforts of this and kindred associations, and the demands of our age, to be united in fraternal harmony.

FOR THE KANSAS SUFFERERS.—Two boxes of goods were received by Brother Baxter a few days since from some unknown party, to be forwarded to the Kansas sufferers. The goods were immediately forwarded. It would be better, however, for parties forwarding goods to the agency in this city to send their names and address, in order that the proper acknowledgment may be made. Contributions have also been received during the past week from the Badger Flat Grange, Lower Lake Grange and from Santa Clara Grange, all of which have been duly forwarded.

THE Warehouse Committee of the State Grange met at No. 6, Leidesdorff street, San Francisco, February 16th, and decided to hold a meeting at Antioch, February 27th at ten o'clock. All Patrons interested in erecting warehouses on the bay, in that part of this State are invited to be present. It is an important matter.

SANTA CLARA COUNTY COUNCIL.—This council will hold its next meeting at San Jose, on Monday, March 1st, 1875, at 10 A. M.

I. A. WILCOX, Secy.

Annual Address

Of Dudley W. Adams, Master of the National Grange, delivered at Charleston, Feb. 3d, 1875.

Patrons of Husbandry: From the snow-clad hills, the flowery vales, the golden shore, and prairie lands we meet together by the historic palmetto. Not as Nomads who gather at a shrine in obedience to a sentiment do we come, but as chosen representatives of the fraternity whose object is the moral and material advancement of the greatest industrial interests of the great republic. Standing as we do to-day upon the narrow line which divides the past from the future, about to step forward into that time which is all unseen by human eye, it behooves us to well scrutinize the track behind us, that we gain thereby some clue to the path before. One year ago we met beyond the Father of Waters and congratulated ourselves on the growth and strength of our gigantic young Order. To-day, by the ever sounding seas we proudly proclaim that our members have increased one hundred-fold. Two more sister States (Maine and Montana) have joined our ranks, and the few remaining ones are joyfully on the way. The work has spread from ocean to ocean.

The winds have wafted the sounds across, and now they come back like echoes from the other shore, asking us to extend to other people a helping hand. This uprising and organizing of a great and scattered interest has not a parallel in the history of the world. The magnitude and force of the movement has surprised its friends and astonished and alarmed its foes. It has burst upon us with the suddenness of the erratic comet, yet promises to remain with the brilliancy and permanency of the sun. It found the agriculture of the nation unorganized, isolated, unrecognized, weak, plodding, and their voices virtually unheard in the councils of the land. To-day they are organized, united, strong, thoughtful, and duly respected and recognized as one of the great powers that be. Though much has now been done in awakening thought and clearing the field, yet we have but just stepped upon the mount and caught a faint glimpse of the promised land. Right before us it lies awaiting our possession. But ere we fairly reach the goal and fully possess the land we see, a wide and dreary waste is to be crossed, which will tax to our utmost our prudence, our perseverance, and our valor. The positions of honor and trust, the avenues to great wealth, the moulding of the political, financial and educational institutions of the nation, have long been in the hands of members of other callings. This monopoly will not be given up without a struggle; and whoever enlists in the Patrons of Husbandry in the expectation of an easy victory reckons without his host. Our movement has been and will be met by a most determined and persistent warfare—every means which talent, wealth and place can command will be used. So, while we believe in the goodness of God and the justice of our cause, we must maintain unbroken ranks and keep our powder dry. In many of the States the work of organizing Granges has been nearly completed, and the noise and enthusiasm attending it is succeeded by comparative silence. The Order is there passing through the ordeal which shall reveal its weakness or display its strength. Though enthusiasm and noise were very suitable and efficient means to kindle the flame, they are not the materials with which to maintain a steady and lasting heat.

To preserve the vantage ground we have gained and ensure permanence and further advancement we must be able to show to our members and the world that material and moral gain does and will result from our organization. We must keep our ranks full, our faith strong, our work pure, and our actions wise. One year ago I called the attention of this body to the fact that the Subordinate Granges are the foundation and life of our Order, and urged the necessity of aiding them by devising profitable and agreeable plans of work and recreation, so that the present membership and interest would be not only maintained, but increased. Owing to a press of business, no action was taken in this matter, and the Subordinate Granges have been thrown on their own resources. I am happy to announce that most of them have been equal to the emergency, but many of the weaker have languished, and failed simply for want of a little paternal aid and counsel in their infancy. We cannot afford to thus allow the weak for whom especially we should provide) to fall by the wayside. It is our stern duty, and should be an unmixed pleasure to tend, direct and uphold them. If we fail in this we fail in carrying out one of our cardinal principles. Let me then most earnestly request you to give this subject your attention as one of the most important which ever came before you. It would be impossible even were it desirable at this time to discern all the grave subjects which will demand your attention, but there are some which I cannot pass without a brief notice. Prominent among these is the subject of transportation, in which every citizen has an interest, either as a producer or consumer. There is a deep-seated and well-founded conviction that the present modes of carrying commodities are uselessly expensive. The people and the government have liberally aided in the construction of railroads and canals in the expectation that increased facilities would result in the cheaper rates of transportation.

We relied implicitly on the idea that by building numerous routes we would attain the benefits of competition, and secure fair rates; but sad experience has fully proven that in-

crease in number and strength of transportation companies only results in more gigantic and oppressive combinations. Though we have some powerful lines between the Northwest and Northeast, yet instead of their competing to reduce rates, they have, within a few days, formed a new combination, by which Western bound freights have been advanced. To remedy this alarming and growing evil the people, in their individual capacity, are powerless, and only through their united action as sovereigns can they obtain redress. In some of the States something of this has been done but it has been necessarily fragmentary and wholly inoperative on through freights. It is utterly impractical for the several States to act in concert through the different Legislatures. I see, then, no solution of this question, but for the people of the several States, through their representatives to the General Government, to stretch out their strong arm between the people and those corporations.

I know I speak the sentiments of the people, when I say we would do no wrong to the capital nominally invested in railroads. We fully recognize their capacity for good, and all their just claims, but we demand justice and protection for the people.

But even if railroads do carry at fair rates, still the fact stares us in the face, that transportation of heavy commodities is at least an expensive luxury, and our true policy is to bring producer and consumer nearer together, and so lessen the transporting. We, of the South and West especially, should spare no pains to introduce and foster manufactures in our midst, that we be not obliged to transport our raw material out and the manufactured article in.

We of the East, where manufactures are many and strong, should, with equal assiduity, promote the cultivation of the raw material, that the terrible strain on transportation be lessened.

I have long ago said that the history of the world or its present condition does not afford a single example of a country which has remained permanently prosperous by the production and exportation of the raw material, but their tendency is all the time toward a condition of dependence and poverty. This position has not been disputed, and I believe cannot be. How important, then, that we cultivate the most amicable relations between all the productive industries, as only by mutual development can we be mutually prosperous, and the whole body politic be maintained in vigorous health.

A thousand years ago learned and thoughtful chemists devoted the energies of a lifetime to a vain search for the wonderful philosopher's stone, whose magic touch should convert the baser metals into purest gold, and thus fill the whole world at once with wealth and luxury. To-day we have numerous citizens who are eagerly pursuing the same phantom. They are torturing their poor brains to devise some plan whose talismanic power will transmute bits of printed paper into countless millions of actual money of such a subtle nature that true as the needle to the pole, it shall go straight to the pockets of the poor, and like a snail "Will o' the wisp," forever evade the clutches of the rich.

It is an indisputable fact that our country is now seriously suffering from a derangement of finances. We need not be at a loss to know the cause. It is a solemn reality that our country has passed through a most wasting civil war. It cost us in money, time lost, industry disturbed, material destroyed, production stopped, more than ten billions of dollars. That immense sum was in four years subtracted from the wealth of the country. It was consumed, and is forever gone. It made us comparatively poor. To bridge over the emergency of the hour, the government issued great volumes of irredeemable paper currency, which we used as money, and thus for a time disguised and hid our poverty. By using this currency our judgment of values became more and more confused as we drifted further from the world's standard. We totally failed to realize our changed circumstances and to inaugurate a corresponding system of economy and industry, and consequently, with an inheritance of debt, extravagant habits and distorted judgment of values, we have been incessantly drifting to leeward. Out of this trouble there is no royal road.

Only by a return to habits of industry and economy, guided by intelligence, can we regain our wealth and remove our load of debt. As an auxiliary to this we want a stable and sound currency, that shall be a reliable measure of values, and recognized as such by all the civilized world. For we may gain this truth from others and our own history, that an irredeemable, fluctuating currency always favors speculators and sharpers, at the expense of those engaged in productive industry.

In an order like ours, which is still in the formative state, it has not seemed strange that many cases have presented themselves during the past year which were provided for by no written law. To meet these emergencies it has devolved upon me, as the chief executive officer of the Order, to make numerous rules for our temporary guidance. These have been placed in the hands of your committee for arrangement, and will be submitted for your consideration.

Some cases have arisen involving points of such doubtful expediency that I have hesitated about taking the responsibility of making rulings. To cover these additional legislation will be needed. An amendment to the constitution has been adopted and ratified, providing for County Granges, under the direction of State Granges. I am fully convinced, from

visiting several States, that the widest possible difference will exist in the organization and management of these Granges in the different States. Under proper and efficient rule they cannot fail to be of eminent value to the Order, but if loosely and carelessly constructed they will be a source of endless annoyance and confusion. As the Masters of all the State Granges are here together in council, it might be well for this body to prepare a complete system of management of Fifth Degree County Granges, and send it to the States. This would not, of course, go to the States as law, but recommended as a plan prepared by and embodying the combined judgment of the Masters of all the State Granges. I doubt not such a plan would be generally welcomed, and would tend to produce uniformity in the work in the several States.

The principal office of the National Grange, under the management of our Worthy Secretary, is each year assuming a more systematic and perfect shape. The amount of business done and the manner of doing it, will be fully shown in his report.

It is an agreeable fact to state that the revenues of the National Grange have been above the expenditures, thus leaving a balance in the treasury, as will appear by the report of the Worthy Treasurer.

This subject of our finances is one upon which the members of our Order are particularly and very properly quite sensitive, and we owe it, not only to them, but to ourselves, that the receipts and disbursement of all moneys be conducted in a manner which will commend itself to the judgment of business men.

It was not my intention to tire your patience so long, but subjects of importance kept crowding on my mind. Many still remain untouched, which will suggest themselves to you.

In our work as a body, and in our association with each other as sisters and brothers, let our deportment be such as to cast a halo over the noble occupation we follow, unite in closer bonds our great fraternity, and intensify the patriotic affection we feel for our common country.

The Grangers' Business Association.

The convention which met in this city last week to organize a Grangers' Business Association had not quite concluded their labors when we went to press. That business, however, was concluded the next day, and all we have to add is the result of the ballot for Directors, which was as follows:

Daniel Inman, Alameda county; Thomas Upton, Merced; G. P. Kellogg, Monterey county; T. J. Brook, Stockton; I. C. Steele, San Mateo county; A. Adams, Sacramento; W. Vanderbilt, Marin county; John Llewellyn, Napa county; Dr. T. Flint, San Benito; A. W. Thompson, Sonoma; R. C. Haile, Solano.

The Directors subsequently held a meeting for the choice of officers with the following result: President, Daniel Inman; Vice-President, T. J. Brook; Secretary, William Vanderbilt; Treasurer, John Llewellyn.

The Directors chosen are in every way worthy of the position, and fully capable of making the Association a most perfect success. The officers elect are eminently worthy and well fitted to fill the positions to which they have been assigned. All that now remains is for Patrons to come forward at once, subscribe for the remainder of the stock, pay down the ten per cent. installment, and thereby furnish the Directors with the means whereby to get the wheels in motion.

Of the 40,000 shares, of \$25 each, 4,000 have been subscribed for, making \$115,000, and of these 3,800 shares were represented at the Convention. Canvassing will immediately begin for holders of the remaining shares, which will probably be taken up without much trouble. On the part of the Convention it is authoritatively stated that there is no desire to compete with any class of merchants. The Business Association will simply act as a factor agency, having representatives in this city, to whom consignments of grain and produce will be sent, and who will make purchases when directed. The object of the Granges is, first, to have control of their own business in their own hands, and, second, to reduce the amount of commissions they have to pay.

NO ALLIANCE WITH POLITICS.—Just as the Grangers' Business Convention were completing their business on Thursday of last week, and before their adjournment *sine die*, a discussion arose as to the character of the meeting which was held at Pacific Hall, on the preceding evening. The meeting was called as one of mechanics, temperance men and farmers, and was held and conducted as such; but as Bro. Baxter presided over the meeting, some of the city papers took occasion to infer therefrom that it was, in part, a Grange demonstration. In consequence of such inference, the following resolution was offered and unanimously adopted, just before the adjournment of the Convention:

Resolved, That the Patrons of Husbandry of California, while they deeply sympathize with their brethren of other industrial pursuits in their efforts to liberate themselves from the thralldom in which they are held by monopolies, disavow any intention of forming political alliances, and, in accordance with the avowed principles of the Order, they reaffirm their unqualified opposition to joining with any political organization as a body, each patron being entirely free to exercise the elective franchise according to the dictates of his own judgment.



By and By.

What will it matter by and by
Whether my path below was bright,
Whether it wound through dark or light,
Under a gray or a golden sky,
When I look back on it, by and by?

What will it matter by and by
Whether, unhelped, I toiled alone,
Dashing my foot against a stone,
Missing the charge of the angel nigh,
Bidding me think of the by and by?

What will it matter by and by
Whether with laughing joy I went
Down through the years with a glad content,
Never believing, nay, not I,
Tears would be sweeter by and by?

What will it matter by and by
Whether with cheek to cheek I've lain
Close by the pallid angel, Pain,
Soothing myself through sob and sigh;
"All will be elsewise by and by?"

What will it matter? Naught, if I
Only am sure the way I've trod,
Gloomy or gladdened, leads to God,
Questioning not of the how, the why,
If I but reach Him, by and by.

What will I care for the unshared sigh,
If, in my fear of slip or fall,
Closely I've clung to Christ through all,
Mindless how rough the path might lie,
Since he will smooth it by and by?

Ah! it will matter by and by
Nothing but this: That Joy or Pain
Lifted me skyward, helped to gain,
Whether through rack, or smile, or sigh,
Heaven—home—all in all, by and by!

—Margaret Preston, in the Independent.

The First Thousand Dollars.

The first thousand dollars that a young man after going out into the world for himself earns and saves will generally settle the question of business life with him. There may be exceptions to this statement; yet, for a rule, we think it will hold true.

The first condition is that the young man naturally earns the thousand dollars in question. He does not inherit this sum. It does not come to him by a streak of good luck, as the result of a fortunate venture in the purchase and sale of a hundred shares of stock. It is the fruit of personal industry. He gives his time and labor for it. While he is thus earning and saving it, he must earn two or three, or perhaps, four times as much to pay his current expenses. He is consequently held sternly to the task of industry for a considerable period. The direct consequence to him is steady, continuous and solid discipline in the habits of industry—in patient, persistent, forecasting and self-denying effort, breaking up all the tendencies to indolence and frivolity, and making him an earnest and watchful economist of time. He not only learns how to work, but he also acquires the love of work; and, moreover, he learns the value of the sum which he has thus saved out of his earnings. He has toiled for it; he has observed its slow increase from time to time, and in his estimate it represents so many years of practical labor. His ideas of life are shaped by his own experience. These natural effects of earning the first thousand dollars we hold to be very large benefits. They are just the qualities of mind and body which are likely to secure business success in after years. They constitute the best practical education which man can have as a worker in this working world. They are gained in season for life's purposes, at the opening period, just when they are wanted, when foolish notions are most likely to mislead an inexperienced brain, and when, too, there is a full opportunity for expansion and development in latter years. Men have but one life to live; and hence they start from opening manhood but once. And the manner in which they start, the purpose which they have in view, and the habits they form will ordinarily determine the entire sequel of their career on earth. To succeed, men must have the elements of success within themselves. One great reason why there are so many useless, inefficient and poverty stricken men on earth—or, rather, boys seeming to be men—consists in the simple fact that they did not start right. A prominent reason why the children of the rich so frequently amount to nothing may be found in luxury, ease and indolence which mark the commencement of their lives. It is the law of God that we should be workers on earth; and no one so well consults 'the best development of this being as when he confirms his practice to this law. The workers in some suitable sphere are the only really strong men in this world.—Exchange.

A GENTLEMAN once said to his gardener: "George, the time will come when a man will be able to carry the manure of an acre of land in one of his waistcoat pockets." To which the gardener replied: "I believe it, sir; but he will be able to carry the crop in the other pocket."

Woman.

[Written for the Press.]

We have some ideas upon this topic which to us appear of sufficient public value to justify their expression. There is nothing in the fullest sense of the term, more respectable than a good woman; no work of the creation more perfect, nothing that so wholly fills and satisfies the human heart, certainly of the male persuasion. But here is an anomaly. The Anglo-Saxon race, more than all others noted for its appreciation of the beauties of domestic life dependent upon the status of the wife and mother, place her by its laws, in a position of degradation that has no parallel but in slavery.

The chief characteristics of the English law, which under the cognomen of the "common law" is the basis of our own, in this connection, are but the relics of that early barbarism in our history which made woman the slave and degraded handmaid in the home where she should be more than the equal and friend of man, where, in "woman's kingdom," she ought to be the queen.

The truism is generally admitted, now, that the condition of woman in any age affords the best type of its civilization; but, for all that, her legal status remains to all effects, substantially as prescribed by the common law.

From the age of eighteen until she marries she is a rational human being, endowed with such powers of judgment as are ascribed to man, and her greater intellectual precocity is admitted by conceding that she is mentally mature at eighteen, while the boy remains an infant until twenty-one years old. But when she marries, a most peculiar miracle occurs to tax our credulity. By something more than a "legal fiction" the law makes it appear that, upon her committing matrimony, the act, if not most sensible she can do, certainly the one most natural and for the well being of society, she becomes bereft of reason and all capacity for business; but, so soon as the death of her husband or divorce from him relieves her from this condition of a married woman, she resumes her original condition of a sensible, human creature.

Whether the common law comes from the old fairy tales in which beautiful women were by enchantment turned to cats and fawns and stones and other inanimate objects, and, the enchantment being broken, resumed their original forms and characters, or the fairy tales come from the common law, the result remains the same, and as we cannot, in maturity, yield the faith our childhood knew in the story of the "Fisherman and the Genii," so we are unable to believe that there is any sense in propositions which involve such principles as are declared to be the law even in the Athens of America. In *Nightingale vs. Withington*, 15, Mass., 273, the learned Judge in speaking of an act by an infant, says: "Such endorsement is not like one made by a married woman, for a note made payable to her becomes the property of her husband; and further, her acts are absolutely void, whereas, those of an infant are voidable only." The difference between "void" and "voidable" is that one, in no event can have any value and is void, but the other, as the child may have some sense, is only "voidable," and when he becomes of age he may affirm his contract. So a man so beastly drunk that the law protects him from his contracts may only avoid them by showing that he was incapacitated; but the law, without regarding age or capacity puts the married woman, as a sensible person, morally and mentally responsible, below the child and drunken man.

This must be wrong, and is an insult alike to our understanding and sense of right; but it would seem to be impossible that a condition of things so monstrous could exist but for some hidden cause.

There is a cause and we do not believe it to be that woman is debarred the right of suffrage. Voting is but an insufficient affair in most men's lives, and their capacity for business depends but little upon that. Men do not hate women that they should so degrade them as to keep them in bondage to the menial tasks of life, or shut them off from participating in the great interests which concern alike man and his partner.

But women themselves are measurably to blame in this; they keep themselves engaged upon matters of so little moment that they cannot entertain the thoughts which engage the minds of men; that's all!

What man could give one-fourth of his time to clothes and yet excel in any calling? How many women can truly say that of the hours of wakefulness, apart from meal times, that proportion of their days is not devoted to dress or clothing in some way. Economy is claimed as an excuse, but, for our part, we cannot see it. Can shoes be made at home so cheaply as in factories? Why do shoes differ from dresses? They do not, but in the custom of the one being made abroad, the other at our homes, and could women—not a few, but all, buy all clothing ready made, economy would be best practiced even counting actual cost and leaving out of view the waste of time, and worse than that, attention and mental ability to the exclusion of thoughts of value. Another most important difference in the sexes is apparent. Boys from the time when they begin to think of life, look forward, and are taught to do so, engaging in some industrial pursuit—as a matter of course. Each—if he have any ideas at all upon the subject and it is to be hoped he

has not—means to marry; but that thought does not affect his usefulness or impair his ambition to be a success in his calling.

How about the girl? Does she strive to be a business success, to attain to eminence, to do great things? Not very much! And yet why not is hard to tell. She admires the boy who does, and hopes to be his companion. What's to prevent her being his equal? Nothing so far as we can see. Brute strength is not in question, because the best pursuits are those which call for mental effort, fine judgment, good sense, and, in the high arts and mechanics, delicacy of touch and handling. In all of these the girl excels, and were she freed from the notion that she must not work, but that her province is to be worked for, her life would not only be more truly respectable and happy, but her anxieties very much diminished, although as a practical hair dresser, stay-lacer and strummer on the piano, her characteristics and capacities would cease to be a matter of interest and comment on the part of her own sex.

A. W. T.

Courtesy at Market Rates.

Courtesy has a market value. In one of our largest hotels a young man has a very large salary as a room clerk. He has the faculty of stowing away people in all sorts of unmentionable places in his hotel and make the guests feel happy about it. His politeness and good humor never run empty. Stout, of the Shoe and Leather bank, is celebrated for his financial success and for his inexhaustible good nature. He is never so busy but he has a kind word for the humblest. When they are rushing things in the bank, Mr. Stout always finds time to say, "Take a seat, Sir; I'll be at leisure in a moment."

A man came into the bank the other day and opened an account. "I came here," he said, "not simply because I knew my money would be safe with you, but because you are always civil. I have been a depositor in—bank for many years. I went in to-day to see the cashier. I knew him when he had no society to boast of, and hardly money enough to pay for a dinner at a cheap restaurant. I laid my hat on the desk, which I suppose I had no business to do. He waved his hand with an imperious air, and said, 'Take that hat off.' I removed my hat, when he said, 'Now I'll hear what you have to say.' 'I've nothing to say to you.' I went to the bookkeeper, ordered my account made up, took the bank's check for \$42,000, and this I wish to deposit. The president and the cashier represent two styles of business common in New York. Sauciness does not bear a high commercial value among the financial men of this city."

The American House of the Future.

The New York Times draws an attractive picture of an interior furnished according to the new fashion now prevailing in Europe, and beginning to be adopted in this country. Heavy rugs will partly cover the polished floors. Paper of some neutral tint, free from glaring figures, will stretch from the richly-colored dado at the bottom to the gay border at the top. The picture-rod will not be of the eternal gilt that wearies us now. It will be painted some decided color that will harmonize with the prevailing shade of the whole room. Before the windows and before the doors, which open outward, curtains, heavy in texture and subdued in tone, edged with strong lace, will hang from wooden rings which move freely on a slender wooden rod fastened to the sheathing. Rings and rod will be of the hue of the picture-rod above. The single curtain before each opening will be looped to one side; low bookcases, not over three feet high, of dark wood, relieved by a few chiseled designs picked out in color, will line the wall; no glass doors will disfigure them. One general pattern, varied in each piece, will stamp the furniture. Last and greatest, an open wood fire, either in a fireplace, or in one of the Franklin stoves which still lurk in the garrets of the old country houses will cast its cheery light over everything.

EASTERN DECORATION.—The gorgeous East showers its barbaric pearls and gold into its magnificent textures. But is there really anything barbaric in the skill and taste which they display? Does the Oriental prince and monarch, even if he confine his magnificence to native manufactures, present himself to the eyes of his slaves in a less splendid or less elegant attire than the nobles and the sovereigns of this our Western world, more highly civilized as we, nevertheless, deem it? Few persons, I think, would answer in the affirmative. The silks, the shawls, the embroidery and jewelry, the moulding and carving, which those countries can produce, and which decorate their palaces and their dwellers in palaces, are even now such as we cannot excel. Oriental magnificence is still a proverbial mode of describing a degree of splendor and artistical richness which is not found among ourselves.—Rev. W. Whewell.

JUNIUS HENRI BROWN calls the dead "The silent majority." That is a very fine thought, and now let Junius stop parting his name in the middle.

WHEN a young man who parts his hair in the middle goes down on an orange peel, nobody seems to care whether he ever gets up again or not.

Children.

"Grace Greenwood" beautifully says in regard to developing the mind of childhood:

"The high privilege, the honor of writing for children, is but little understood. Is it not a beautiful thing to call out the first bloom, to inhale the morning fragrance of the immortal soul—flower? Is it not a great thing to trace the first word on the soft, white tablets of the mind, where they will harden and remain forever? O, those earliest teachings! how the soul treasures them, and holds them dear and sacred through all the changes, labors, and distracting pleasures of life! The mind cannot grow proud and strong enough to expel them, nor can the heart harden and contract till it crushes them. I have heard somewhere the story of a faithful servant of a banished lord, who cut into a young tree on the old estate, and hid under the bark some small but precious jewels belonging to his master. Years went by, and the young exile returned an old man. The steward was gone, but his lord knew well the secret of his deposit. Where the young tree stood now towered a thrifty oak, with bark hardened and roughened by time; well had it kept its trust and its treasures, though the tough wood had closed over them, and no eye could guess their hiding place. The tree was felled, and in its very heart its gems were found—not a point broken, not a ray wasted, they flashed up to the light of the old brightness, and made glad the heart of the old master. Even so safe an investment is knowledge in the mind of a child; truth there lodged is a life-long deposit. Though that mind may tower and expand, and put on rough defenses against the world, it still has its little unsuspected jewels; and that heart but holds them closer and closer with its strengthening fibers, till the hour when the Master comes to look for them."

Work and Study.

The four years that a young man is in college, must be preceded by at least three years of laborious preparation. These seven years of mental work have, in a certain sense, taught him to forget how to toil with his hands. He is not fit physically "to dig," and to engage in those occupations which are half manual, half mental, into which he is thrust to establish, as in a sort of trial, his ability to aid in the stress and struggles of life.

A man who has spent seven years at a trade, knows precisely what to do in his calling, and how to do it; but our graduate knows his books, which, alas! the hurried world don't want; he is familiar with Greece and Rome, but cannot keep accounts; he can tell you of Olympus, but cannot tell you the cost of fractional bushels at fractional prices. He is a boy yet; he must yet begin to learn the "art of living"—a trade of some kind he must have. Meanwhile he waits; he looks on; he stands in the market-place because no one has hired him, and so doing he has all the appearance of an idler.

Again, many seek for an education, expecting thus to escape drudgery. They go into college that they may not work, and they avoid it while there, if excuses will avail; and when they hold their diplomas in their hands, they are still resolute not to labor if possible. They are applicants for some place that has for its chief recommendation—a salary. This class is largely made up of spoiled boys, thought by aunts and grandmothers to be too delicate, too smart, or too handsome to drudge in the house, shop or on the farm; and it has many recruits from city households, because there is no work to be done, no wood to split, water to be drawn or garden to be tilled. For with a large number of people, doing work is like chewing tobacco—a habit to be acquired, and when acquired, followed as a habit.—N. Y. School Journal.

One Idea of Poverty.

It was Bulwer who said that in nine cases out of ten, poverty is only an idea. Some with ten thousand dollars a year suffer more want of means than others with three hundred. The reason is, the richer man has artificial wants. His income is ten thousand, and he suffers enough from being dunned for unpaid debts to kill a sensitive man; he who earns a dollar a day, and who does not run in debt, is the happier of the two. Very few people who have never been rich will believe this, but it is true. There are thousands and thousands with princely incomes who never know a moment's peace, because they live beyond their means. There is really more happiness in the world among the working people than among those who are called rich—always providing that poor folk do not, in a smaller way, emulate the prodigality of their richer brethren. Poverty is simply a question of the good or bad management of money in hand.

OUR POSTMASTER-GENERAL.—It is said that our Postmaster-General is not only a Jewell, but a veritable diamond. He has certainly struck corruption a smashing blow on the head in his late promulgation against the contract rings, who have been swindling the government out of hundreds of thousands of dollars in the carrying of its mails.

HAVE the courage to give occasionally that which you can ill afford to spare. Giving what you do not want nor value neither brings nor deserves thanks in return. Who is grateful for a drink of water from another's overflowing well, however delicious the draught? Have the courage to wear your old garments till you can pay for new ones.

Nonsense.

The most striking resemblance of which we have lately heard was that of the hopeful son who "took after" his father with a club.

It is a thing to be wondered at that the advertisements of miraculous cures by the quack doctors are ever read or in any way pay for their being printed; but they must do so or we should see no more of them. Here is one which may not be all imaginative, or quite a fiction, remembered, we believe, from reading some English journal:

There was a Mrs. F.,
So very deaf
She might have worn a percussion cap
And been hit on the head without hearing it snap.

She was by advertisement induced to buy the Patent Wonderful Ear Trumpet, and to put it in use;

And the very next day
She heard from her husband at Botany Bay.

Our farm once being in jeopardy from land sharks, we had to attend a term of the District Court of Sonoma County, and the time hanging at evening heavy on our hands, we attended a mock trial of a member of the bar before a jury of his peers.

Charley H., of Petaluma, a son-in-law of the lamented Col. Baker, was a good fellow and first-rate lawyer; but, it appeared, would take cases for what he could get, regardless of the prevailing rule among the lawyers to charge stated prices. His fellow practitioners instituted proceedings to fine him the champagne supper for taking a District Court case for five dollars, when the lowest prescribed fee was fifty dollars.

The court-room was the law-office of Judge T., and the jury of lawyers duly empanelled. The witness for the prosecution was H.'s client, who, being induced to believe himself under oath and bound to tell the truth, the whole truth, and nothing but the truth, admitted that he had employed H. as his attorney to defend a District Court case then pending at the term, and that H. as his lawyer had taken it for five dollars, as all the fee he expected. Conviction seemed imminent, but H. rose, and conducted the cross-examination thus:

"Peter Hans C., you came to me to defend you?"

"Yes."

"Told me your case?"

"Yes."

"What was the first thing I said?"

"You must bring me a fee of a hundred dollars."

"Mine Got! I can not! I have not got one cent. I am a stranger, all alone. I am very poor. I have no money."

"Haven't you got any friends?"

"I'm all alone—mine wife and me. I knows nobody; nobody knows me."

"Can't you borrow some money, or beg it, or get it, somehow?"

"How can I gets it ven I knows nobody?"

"What did I say to you then?"

"You gets mat, and ret in the face, and you says to me: 'Git out, you Dutch—!' And I say: 'Mr. H., you must defend me, and safe mine case; I gives you what I can, and I pays you sometime.'"

"You gets matter and matter, and say: 'Git out of here! You goes and borrow some monish, and if you can't borrow any, you begs some; and if you can't borrow nor beg, you steals some! Git out! anyhow; and don't you comes pack without coin.'"

"Well, you got?"

"I did, Mr. H.; you knows I did; because you kicked me out. But I came pack."

"Well?"

"I tried hart. I could not get any monish, so I tried to borrow, but could not; then I begget, but could not; and then I watchet my chance and stole all I could. And I come pack to you, and said: 'Mr. H., I have been to work, and could not; I have begget, and could not; but I have stole fife dollars, ant here it is.'"

"So you brought me all you could earn, beg, borrow or steal, and I took it?"

"Yaw; dat ish shust it! You got all I coul earn, beg, borrow or shtear, ant you knows it; and you takes mine case."

No other testimony was presented. The culprit showed that he had taken as fee all his client had, could earn, beg, borrow or steal, and successfully pleaded that he not only ought to be acquitted, but the prosecution should be mulct in costs the proposed penalty on him: the price of the supper.

The result was as anticipated—in his favor; and we were favored with an invitation to join in the entertainment, where many good bar stories were told, with which "Nonsense" may hereafter be favored.

A. W. T.

A PAPER has this advertisement: "Two sisters want washing." We fear that millions of brothers are in the same predicament.

YOUNG FOLKS' COLUMN.

A Right-Hand Servant.

Asa and Ira were brothers, whose farms lay side by side. When the young corn, the oats and the barley were springing up, the weeds took advantage of the rich soil and came up with them.

"Do you see," said Asa, "what a hold the weeds are taking? There is danger of their choking out the crops entirely."

"Well, well, we must be resigned," said Ira. "Weeds as well as grain were a part of the Creator's plan."

"I can only be resigned to what I cannot help," said Asa. So he went to work, and plowed and hoed until the fields were clear of weeds.

"The army worm is in the neighborhood," said Asa to Ira one day, "and is fast moving toward us."

"Ah!" exclaimed Ira, "it will surely destroy what the weeds have not choked out. I will immediately retire to pray that its course may be stopped."

But Asa replied, "I pray every morning for strength to do the work of the day." And he hastened to dig a trench around his land which the army worm could not pass, while Ira returned from his prayers only in season to save a portion of his crops from its ravages.

"Do you see, Ira?" said Asa, another morning, "the river is rising, and our farms will be overflowed."

"Alas, it is a judgment upon us for our sins; and what can we do?" said Ira, in despair.

"There are no judgments so severe as those which our own sloth brings upon us," said Asa; and he went quickly and hired workmen, and they raised an embankment that withstood the flood, while Ira witnessed, with blank looks, the destruction of all his wealth.

"There is one consolation," said he; "my children are at least left me."

But while Asa's sons grew up strong and virtuous men, among Ira's there was a drunkard, a gambler and a suicide.

"The ways of the Lord are not equal," said Ira to his brother. "Why are you always prospering, while I am afflicted and disgraced?"

"I only know this," replied Asa, "that heaven always helped me to meet my children's faults as I meet the weeds, the caterpillars and the flood; and I never send a petition upward without making toil, my right-hand servant, the messenger of my prayer. Work and pray."

A Girl Lesson of Order.

I remember when I was a little ten year's old girl, putting things to right for my grandmother in her bed room. A few moments afterwards I was sitting with my hands folded, in a thoughtful way, when the good old lady said: "Don't you feel well to-day, dear?"

"Not very; I feel down-hearted," I said looking up into her cheery face.

"Well, I can tell you what's the matter," said the shrewd little diplomat, "I wasn't going to tell you, but I'd better do it than have you sick. I observed in my bed room that you folded a couple of quilts and some sheets and my plaid shawl, and piled them on the trunk at the foot of my bed, and none of them were folded evenly, and that's what ails you. My mother told me when I was a little girl if I did such work in a careless, slovenly way, I would feel badly until they were folded right, and I always found her words to be true. It may be that this is hereditary in our family, I don't know. It seems like it."

I sprang to my feet and went to work and folded every quilt and sheet just as evenly as the edge could lie, and piled them up until they fitted together as snugly as a pile of books. Sure, I felt well enough after that; my thoughts were as calm and snug as the bed clothes were.

Oh, I was so glad grandmother had told me; I thought if she hadn't I might have gone on feeling "down-hearted," may be for weeks and months.

Well, the habit of folding quilts, sheets, blankets, table linen, shawls, wraps and such things even and nicely, became fixed so firmly, and followed me up to womanhood so persistently, that to-day, if I fold my shawl carelessly, I feel annoyed until I go and remedy the delinquency. I can now see the motive my shy little grandmother had in holding up before my youthful imagination the enormity of this fault, and I do most cordially thank her for it.—Ez.

YOUNG MEN, look well to the end. Before beginning, look well to the end to which this beginning is likely to lead, and, when once begun, have a care until the end has been reached. Let not intermediate successes engender a carelessness which will cause the final accomplishment of the whole design to slip through your fingers.

How often one finds in life that an idea which one may have met in youth, made visible in words, but also veiled in them, which in this shape has haunted one with a vague sense of something divine, but dim and inscrutable, becomes, at the call of conscience or when real events give it its fit body, the open aspect of a messenger from heaven, and the familiar friend of all one's after days.

A BUILDER, returning thanks, modestly observed that he was "more fitted for the scaffold than public speaking."

GOOD HEALTH.

Diphtheria—Symptoms, Treatment and Prevention.

The following information, from a no less authoritative source than the Report of the Sanitary Committee of New York, and which embodies deductions from the investigations of the latest and most competent medical authorities, ought to be generally diffused:

Mode of attack.—Diphtheria is caused by the inoculation of the air-passages with the diphtheritic poison, which from this point infests the whole system; the local inflammation is attended with the formation of membrane (exudation); the fever and general symptoms are the result of this local infection.

How it Spreads.—Diphtheria is therefore a contagious disease (not, perhaps, as marked as scarlet fever), induced by contact with objects infected. It may be diffused by the exhalations of the sick and the air surrounding them; or directly by the exudation, as in the act of kissing, coughing, spitting, sneezing; or by the infected articles used, as towels, napkins, handkerchiefs, etc. The poison clings with great tenacity to certain places, rooms, houses, where it may occasion cases after the lapse of months.

Symptoms.—In ordinary attacks the poison begins to act the moment it lodges upon the tissues; but, like a vaccination, at first causes but slight sensible effects. In from two to five days there is marked prostration, dryness of throat, and pricking pain in swallowing; the throat becomes red, and patches of white exudation appear, and the glands of the neck swell. In mild cases these symptoms subside on the third or fourth day from the appearance; if more severe, these symptoms may be prolonged; if unfavorable, the fever increases, the local inflammation spreads, and exhaustion rapidly follows.

Predisposing Conditions.

The Person.—Diphtheria attacks by preference children between the ages of one and ten years, the greatest mortality being in the second, third and fourth years; children of feeble constitutions, and those weakened by previous sickness, and those suffering from catarrh, croup, and other forms of throat affections.

Social Relations.—All classes are liable to diphtheria where it is prevailing, but those suffer most severely who live on low, wet grounds; in houses with imperfect drains, or surrounded by offensive matters, as privies, decaying animal or vegetable refuse; in damp rooms, as cellars; in overcrowded and unventilated apartments.

Seasons.—Diphtheria is not affected by either heat or cold, drought or rain.

Precautions.—The Dwelling or Apartment.—Cleanliness in and around the dwelling, and pure air in living and sleeping rooms, are of the utmost importance wherever any contagious disease is prevailing, as cleanliness tends both to prevent and mitigate it. Every kind and source of filth in and through the house should be thoroughly removed; cellars and foul areas should be cleaned and disinfected; drains should be put in thorough repair; dirty walls and ceiling should be lime-washed, and every occupied room should be thoroughly ventilated. Apartments which have been occupied by persons sick with diphtheria should be cleansed with disinfectants, ceilings lime-washed and wood-work painted; the carpets, bed-clothes, upholstered furniture, etc., exposed many days to fresh air and the sunlight (all articles which may be boiled or subjected to high degrees of heat should be thus disinfected). Such rooms should be exposed to currents of fresh air for at least one week before reoccupation.

Well Children.—While diphtheria is prevailing, no child should be allowed to kiss strange children nor those suffering from sore throat (the disgusting custom of compelling children to kiss every visitor is a well contrived method of propagating other grave diseases than diphtheria), nor should it sleep with, or be confined to rooms occupied by, or use articles, as toys taken in the mouth, handkerchiefs, etc., belonging to children having sore throat, croup, or catarrh. If the weather is cold the child should be warmly clothed with flannels.

When Diphtheria is in the House or in the Family.—The well children should be scrupulously kept apart from the sick, in dry, well-ventilated rooms, and every possible source of infection, through the air, by personal contact with the sick, and by articles used about them or in their rooms, should be rigidly guarded. Every attack of sore throat, croup and catarrh, should be at once attended to. The feeble should have invigorating food and treatment.

Sick Children.—The sick should be rigidly isolated in well-ventilated (the air being entirely changed at least hourly) unlighted rooms, the outflow of air being as far as possible through the external windows by depressing the upper and elevating the lower sash, or a chimney heated by fire in an open fire-place. All discharges from the mouth and nose should be received into vessels containing disinfectants, or upon cloths which are immediately burned.

While scarlatina, small-pox and enteric fever are scourging numerous cities in England, diphtheria is now prevailing in about half the cities with which this bureau holds correspondence in the United States, and it is more fatal in numerous interior towns and cities than it is in this city, where its increase seems to be stayed.

DOMESTIC ECONOMY.

Tomatoes for Supper.

Few people know how to prepare uncooked tomatoes in the way adopted in my family, and incomparably better than any mode I have ever tasted. By this mode they are very desirable for supper or breakfast. For a family of half a dozen persons take six eggs, boil four of them hard, dissolve the yolks with vinegar sufficient, add about three teaspoons of mustard, and mash as soon as possible; then add the two remaining eggs (raw), yolk and white, stir well; then add salad oil, to make altogether sauce sufficient to cover the tomatoes well; and plenty of salt and cayenne pepper, and beat thoroughly till it frosts. Skin and cut the tomatoes a full fourth of an inch thick, and pour the sauce over, and you have a dish fit for a president. Though a little troublesome to prepare, yet if once eaten by people who are blessed with palates to enjoy good things, they will be pronounced to be far superior to any other mode of preparation. For dinner they are best stewed, but they should always be strained before sending to the table.—Cor. Germantown Telegraph.

To BOIL A HAM.—Take a ham weighing about eight or ten pounds, soak it for twelve or twenty-four hours in cold water, then cover it with boiling water, add one pint of vinegar, two or three bay leaves, a little bunch of thyme and parsley (the dried and sifted will do, or even the seeds of parsley may be used if the fresh cannot be procured); boil very slowly two hours and a half, take it out, skim it, remove all the fat, except a layer about half an inch thick; cut off with a sharp knife all the black looking outside, put the ham into your dripping pan, fat side uppermost, grate bread crust over it and sprinkle a teaspoonful of powdered sugar over it; put it in the oven for half an hour, until it is a beautiful brown.

Eat cold; cut the nicest portion in slices; the ragged and little odds and ends can be chopped fine and used for sandwiches; or, by adding three eggs to one pint of the chopped ham and frying brown you have a delicious omelet for breakfast or lunch. The bone should be put into the soup kettle. The rind and fat should be rendered and strained for frying potatoes or crullers. A ham prepared in this way will go twice as far as when cooked and carved in the ordinary manner, besides the conviction it gives the housekeeper of being economical, and at the same time placing neat and palatable dishes before her family.

An excellent breakfast dish can be made from the remains of a ham. Take about a pound and a half of the ham, both fat and lean, put it into the mortar and pound it. Boil two large slices of bread in a pint of milk, add three boiled and mashed potatoes and one egg. Mix it with the ham, beat up well and bake it a rich brown.

GOOD TARTS.—Pare and core about a dozen nice apples, put them into a saucepan to stew, adding a little water; stir them frequently, and when they are cooked to a pulp, add a pound of currants and enough sugar for sweetening nicely. To this add a teaspoon of rich cream, flavored with vanilla. Line a deep tart dish with puff paste, pour into it the apples and cream, and cover it with another piece of paste of the same thickness and size, and press the edges closely together. Place in the oven and bake to a rich brown. Serve with wine sauce.

POTATO CHOPS.—Boil and mash some nice mealy potatoes, then, with one or two well beaten eggs, make them into a paste, work it well, dust it over with flour and roll out. Take some nice thin neck of mutton or lamb chops, carefully trim off the fat, pepper and salt them on both sides, cut the paste into shape, cover over like a puff, pinch the edges and fry of a light brown; they look better if about an inch of the bone is left visible.

ICING THAT WILL NOT BREAK.—Take one pound of pulverized sugar and the whites of three fresh eggs, well beaten. Mix them well together, and flavor with the juice of one lemon or add a teaspoonful of strong cider vinegar. Pulverize one teaspoonful of wheat or corn starch and add to it. Flour the top of the cake as soon as it is taken from the oven, and put on the icing with a large bladed steel knife into warm water, and then smooth the frosting with it.

TASTE OF PINE.—A pine curbing to a well or spring which has but a small discharge where it comes in contact with the water, often causes it taste of the wood. If boards so used are soaked in milk of lime, or a solution of potash and soda before being put into the well, there will be no trouble.

SUGARED POP-CORN.—One cup of white sugar, half a cup of water, boil till it taffies, and sprinkle in the pop-corn as much as the pan will hold. If nicely popped this will sugar two quarts of corn. Stir well, so that it does not stick together. The grains ought to be separated.

RAISED WAFFLES.—One pint of sweet milk, one teaspoonful of butter, three eggs, a teaspoonful of thick brewers' yeast, one quart of flour, and another cup of milk, in which dissolve a teaspoonful of soda. Let it all rise until light, and then bake like other waffles. Serve with butter and sugar or maple syrup.



PUBLISHED BY
DEWEY & CO.
A. T. DEWEY, W. B. EWER, G. H. STRONG, J. L. BOONE
PRINCIPAL EDITOR, W. B. EWER, A. M.

OFFICE, No. 224 Sansome street, Southeast corner of California street, where friends and patrons are invited to our Scientific Press, Patent Agency, Engraving and Printing establishment.

Subscriptions payable in advance—For one year, \$4; six months, \$2.25; three months, \$1.25. Remittances by registered letters or P. O. orders at our risk.
ADVERTISING RATES.—1 week. 1 month. 3 months. 1 year
Per line..... .25 .80 \$2.00 \$5.00
One-half inch.....\$1.00 \$3.00 \$7.50 24.00
One inch..... .2.00 5.00 14.00 40.00

Large advertisements at favorable rates. Special or reading notices, legal advertisements, notices appearing in extraordinary type or in particular parts of the paper, inserted at special rates.

No Quack Advertisements Inserted in these columns.

RURAL PRESS.

OLD SUBSCRIBERS and other reliable persons are authorized to get up clubs of five or more subscribers for this paper at \$3 per annum for each name. Our terms for all subscribers are cash in advance. Postage will be prepaid by us after January 1st, 1874. The papers will be addressed singly to each individual. Regular subscription price \$4. Sample copies free. Let those who will work for the Rural bear in mind that they will confer a lasting benefit on now subscribers, besides improving their own talents by business practice. Try your hand and report at once. We offer all a chance. You do not know what can be done till you try!

SAN FRANCISCO:

Saturday, February 27, 1875.

TABLE OF CONTENTS.

GENERAL EDITORIALS.—Agricultural Matters at the University: The King-Bird; Fruit Drying for 1875, 129. Seed Time and Harvest: Shall the Productions of the Soil be Patented? Enquiries from Abroad about the Pacific Coast, 136. Improved Water Wheel, 137. Patents and Inventions, 140.
ILLUSTRATIONS.—The King-Bird, 129. Economy of the Vegetable Kingdom; S. N. Knight's Improved Harly-Gurdy Water Wheel, 137.
CORRESPONDENCE.—Trial of Straw-Burning Engines: The Tanning Plant, 130.
POULTRY YARD.—Fattening Fowls; Scurfy Legs in Fowls, 130.
THE VINEYARD.—The Evolution of the Philloxera, 130.
USEFUL INFORMATION.—Colors in Carpets and Upholstery; Write Plain English; To Bleach Flannel; Vaporizing Iron; Wicks in Kerosene Lamps; Hops and Hop-Stalks, 131.
PATRONS OF HUSBANDRY.—Progress of the Patrons in California; New Granges; Meetings; Etc., 132-3.
HOME CIRCLE.—By and By (Poetry); The First Thousand Dollars; Woman; Courtesy at Market Rates; The American House of the Future; Eastern Decoration; Children; Work and Study; One Idea of Poverty; Our Postmaster-General, 134. Nonsense, 135.
YOUNG FOLKS' COLUMN.—A Right-Hand Servant; A Girl Lesson of Order, 135.
GOOD HEALTH.—Diphtheria—Symptoms, Treatment and Prevention, 135.
DOMESTIC ECONOMY.—Tomatoes for Supper; To Boil a Ham; Good Tart; Potato Crops; Icing that will not Break; Taste of Pine; Sugared Pop-Corn; Raised Waffles, 135.
POPULAR LECTURES.—Economy of the Vegetable Kingdom, 136-7.
HORTICULTURE.—Present and Future of California Fruits, 137.
AGRICULTURAL NOTES from various counties in California, 140.
MISCELLANEOUS.—Evaporation of Water from Plants; Improved Chromo Lithographic Process; Poison in Bamboo, 130. Irrigating and Other Cautels, 131.

Seed Time and Harvest.

To the seed sower the seasons of seed time and harvest are separated by several months; but to the seed seller there is no "and" coming between them; they are one and the same season. We are pleased to learn that our friends, the seedsmen of San Francisco, are reaping a good harvest in the way of cash sales. This is already an important branch of trade in this city; setting a large amount of money afloat before spring business generally has fairly opened. The peculiar characteristics of the agriculture of this coast demand special consideration from the seedsmen as well as the husbandman. From our acquaintance with the best seed houses of this city we are convinced that they are at least fully up to the present agricultural level. They are evidently acquainted with the condition and wants of the country, and manifest a degree of pride in the agricultural and horticultural productions of the Coast, equal to that of the producers themselves. We are pleased to note the fact that there is less inclination on the part of farmers than formerly to import their own seeds.

THE AUGHINBAUGH BLACKBERRY.—Mr. Wm. Parry, proprietor of the Cinnamonson Nursery, N. J., writes us as follows in regard to this blackberry. Mr. P. will see by this week's Rural that there are some of the plants left: "I have seen a notice of new blackberry introduced by a Mr. G. Aughinbaugh. Is it advertised for sale in your paper? If not, can you inform me of the post office address of Mr. G. Aughinbaugh, or any other person having the plants for sale, as I would like to get some for trial. An early answer will much oblige."

Shall the Productions of the Soil be Patented.

The press—especially the agricultural portion of it—have given some space of late to the discussion of the merits of a bill now before Congress, which, in its design and provisions make the productions of the soil patentable. The bill provides that every resident of any State or Territory of the United States, who has been or shall be the originator of or discoverer of any new and valuable fruit or plant, being a new variety of any grain, vegetable, vine, herb, root, tree, wood, plant, shrub or flower, or the seeds, roots, scions, bulbs, tubers, eyes or cuttings thereof, and which shall not have been sold or publicly offered for sale, shall have the sole right and liberty of growing, propagating and selling such plant for the term of seventeen years.

Those who are, or profess to be, especially concerned for the rights of the agriculturist and horticulturist, declare that they cannot see why a man who produces an improvement in these departments should not possess the same right in them that are granted to mechanics and others. But, putting in this claim, is, to say the least, hardly opportune at the present time, when farmers are making a special effort to restrict patents, if not to ignore them altogether. But we do not really believe that the classes for whose interests this bill is supposed to provide desire its passage. In the first place, they would not derive any direct benefit from such patents, for such improvements do not originate with these classes. It is to the enthusiasts in these matters, isolated individuals, retired but ardent worshippers at the shrines of agriculture and horticulture, that we trace the improvements in fruits, grains, flowers, etc. The amateurs who were dependent upon commerce and the trades and professions, or who were independent of all these callings, have produced most of our improved varieties of grain, fruits, flowers, etc.

The originator of the celebrated Goodrich potato, was Dr. Goodrich, physician to the N. Y. State Lunatic Asylum. The grounds of the asylum afforded a good field for his experimental operations, and he found recreation from his arduous professional labors in the efforts which resulted in this celebrated seedling, which has been as widely known as any potato that has ever been produced.

We could mention many cases of a similar character, but will merely refer the reader to the brief sketches of new varieties of grain, vegetables, fruits and flowers, which, in a large proportion of cases that inform us they were originated by some physician, clergyman, or retired merchant or capitalist.

So if there is any royalty to be paid for these improvements it will come out of the pockets of the farmers instead of going into them; and there is a probability that a monopoly will thus be built up, more obnoxious to the agricultural classes than any now existing. The producer and the consumer will alike be taxed to sustain a new and powerful order of middlemen. It is safe to predict that it will be new in every respect; for if money is to be the incentive to experiments in this field of invention, we may expect to see the enthusiastic, unselfish men to whom we have hitherto been indebted, slacken their labors, and their places supplied by an entirely different class of men. They have not, as a general thing, sought pecuniary reward; as a class they have been remarkable for their modesty and disinterestedness. Still they have not, by any means, lived lives of self sacrifice. The man who is, through a long course of years, employing his leisure hours in perfecting some seedling, grain, fruit or flower, is no more an object of commiseration or reward than is the trout fisher on the bank of some favorite stream. In mechanical inventions and scientific research great sacrifices of time and money are generally made before anything substantial is gained; but nothing of the kind is required in securing such improvements as this bill would make patentable.

Even though justice and the interests of agriculture and horticulture required the proposed protection by patents is it practicable? If a farmer buys at a high figure a potato or an ear of corn of some new and expensive variety, will he not dispose of the increase from these as he thinks proper? Can he dictate to the purchaser thereof whether he shall eat all the potatoes, or plant a portion of them, and the same with the corn? And the surplus scions and runners which we remove from off our trees and vines; shall we be allowed to give them to friends and neighbors? It will be rather hard if we are denied this privilege; but without this restriction a patent on fruit would be of little avail; for a very large portion of the increase of choice fruit is brought about in this way; and the same rule applies largely to plain agricultural products. These patents are, it seems, to be good for seventeen years; but we apprehend it would require a larger increase of office holders to manage this thing seventeen months, even, than the country would submit to.

We have as yet heard nothing said in connection with live stock; but the sacrifices are greater in producing a clearly defined, valuable

breed of cattle and horses, sheep or fowls, than any of the products referred to above; while the benefits which the country receives from the former are quite as tangible and permanent, and common justice would grant the stock breeders a patent as readily as it would to the originator of a variety of grain or fruit. But in tracing out the proprietary rights of the cattle or poultry breeder, what a fearfully bewildering series of cases of mistaken identity present themselves to the imagination!

Is there not reason to fear that if the improvements referred to were produced under a system of patents, there would be more spurious, worthless articles palmed off on the community than under the present system of honorary rewards, or with no reward at all, but that which the true enthusiast receives from the gratification of his earnest desire for improvement?

Enquiries from Abroad about the Pacific Coast.

Information for Immigrants and Others.

The following questions were addressed to J. Earl, former proprietor of the GUIDE. We invite our correspondents from different sections of the Pacific States and Territories to answer more fully through our columns, by personal letters to the questioner, the queries asked below. We will answer enquiries of a general nature; but as many of these correspondents are evidently interested in some particular portion of the country, and wish to be informed of the present condition of these localities, the people now residing there would be the proper sources from which to obtain this information. And as immigration is desirable in all parts of the country we shall expect to have our friends come forward with the requisite information.

Has an Eye on Los Angeles.

C. W. Burton, of Manlyville, Henry county, Tennessee, wishes for "some information in regard to the cost of a family immigrating to Los Angeles from St. Louis. I am getting up a party for that part of California. Also, what lands can be bought for. We aim at going to St. Louis by river." Will some of our Los Angeles friends respond to this call for information?

Does not Want to be a Laplander.

G. A. Butler, Nelson, Buffalo county, Wisconsin, says: "There are a few of us going to start for California the first of April, 1875. I myself am from Pennsylvania, and was used to having plenty of fruit. I have been here 12 years and have had nothing but crab-apples. Have got a fine little farm here, but still am poor. The cold weather of two years ago killed our apple trees, and I fear they will be killed this year again; as the thermometer has been since the 8th of January, from 10 to 34 degrees below zero, and the last of January, two hours after sunrise was 22 degrees below. Now, you see how cold it is. I believe a Laplander would freeze to death here."

We can sympathize with our Wisconsin friend for we have "bin there." He may obtain a nice little farm in California, and still remain poor; but he can live in comfort, and there are many portions of the State where he can settle having a climate whose January is like the May of his present home. And if "plenty of fruit" is a consideration with him, we can assure him that he is coming to the fruit eater's Paradise. Our apple trees may not be as long lived as those of Pennsylvania; it would be unreasonable to expect from trees of such early maturity, and bearing such profuse and uniform crops, the longevity of the slow growing, late maturing trees of the Middle States, that only bear in alternate seasons.

We say that our friend "may remain poor;" for it should be borne in mind by those who intend immigrating to California, that the contingencies of character and fortune exist here as elsewhere, but are less potent in keeping men and their children in certain grooves. We believe there is better chance here for even the heads of families than in the older States, while the advantages in favor of their children are above comparison with those of any other State.

Sheep Ranges Wanted.

M. C. Barna, of Battle Ground, Tippecanoe county, Indiana, writes as follows: "I am desirous to locate somewhere in the West. Think I would like southern California. Perhaps there will be a number of Patrons from this place who would like to emigrate. Will you please to send me, if you can, a map of southern California. What are the sheep prospects, mining, etc? Where is the best sheep county located that is not occupied? Any and all information will be thankfully received."

An occasion is here offered to California Patrons to confer a substantial favor upon members of their Order by answering the above. We hope that those who possess the requisite information will not be slow in communicating the same.

Other inquiries await an answer. We will notice these and all that demand our attention as soon as circumstances will permit.

R. P. EDMONSON will oblige by sending his P. O. address to this office, as we wish to answer his letter.

POPULAR LECTURES.

Economy of the Vegetable Kingdom.

Fifth Lecture Delivered before the University of California College of Agriculture, on Friday, January 22d, by Prof. C. E. DEXSEY.

Insect-Using Plants.

In that suggestive little book of Dr. Gray's, "How Plants Behave," some curious things are told about plants and insects. One chapter tells "How plants make insects work for them;" another, "how plants capture insects." Within the last few years the attention of botanists has been directed to the relation between plants and insects. Darwin, in his book, which is too little known in this country, "On the Fertilization of Orchids," showed that in orchidaceous plants, in every case almost, it is absolutely necessary that insects should carry the pollen from the stamen to the pistil and that in all cases the plants and insects were

Mutually Adapted to Each Other

And that each species of plant had each its particular insect, each corresponding exactly to the other. These facts have given to orchids an interest not excelled by any other group of plants. For some time they were looked upon as somewhat exceptional in their need of insects. This peculiar subject has been well studied by Darwin, Miller, Lubbock and others and by them we have been shown that this dependence upon insects is not confined to orchids, but that on the contrary, very many of our ordinary flowering plants are just as dependent as these same orchids.

Now, a little about fertilization. The fertilization of flowers is usually effected by the association or union of two cells, the stamen or pollen cell, and the pistil or ovule cell. Pollen is contained in pollen sacs on the stamens, while the other cells are found in the cavity of the ovule. The pollen in fact comes in contact usually with the stigma and then grows down through the soft tissues to the ovule cell. The deposition of pollen, then, upon the stigma is a matter of great importance. If it is allowed to fall upon the stigma, fertilization ensues; if it is prevented, there can be no fertilization and just here is where the work of insects comes in.

Now it might be supposed that each flower would be made so that its pollen would fall upon its stigma, and for a long time this was supposed to be the case, and then the point was to show that in every case the pollen would fall upon the stigma.

It was found in many plants that the stamens and pistils are in different parts of the branches; that is, they are dioecious, as we call them. In some cases the stamens are in one plant and the pistils in another. Now then, if nature intended the pollen to fall upon the stigma, this certainly is not the best arrangement to produce that result. In Iowa we have a very beautiful plant, the Claytonia, or Spring beauty. When it opens, the stamens are shedding their pollen. Examining the flower at this time, it has pretty generally the appearance of a Fig. 1. At the time these stamens are shedding their pollen, the lobes of the stigma are closed up. Now, the stigmatic surfaces are in the inner parts, that is, they are brought together in their closing of the lobes, so that when these stamens are shedding their pollen, it can not possibly get upon the stigmatic surfaces. In ten or twelve hours or more, these stigmatic lobes begin to diverge. But now see what follows. Just as soon as these begin to spread, the stamens assume the position shown at b, Fig. 1, that is, they are pressed down flat against the petals, as far away as possible from the stigmas. As soon, however, as the fertilization has taken place, the stamens again assume their original position, showing conclusively that we have here an action to prevent this pollen getting upon these particular stigmatic lobes.

Then, you have here another case, which is quite common. I see, growing all along the roadsides, the plantain. [The speaker then pointed out with the aid of diagrams the peculiar arrangement in the plantain for preventing the pollen of one flower from reaching the stigma belonging to that flower.] Now, in these two cases that I have pointed out, it looks very much as if it was intended that stamen and stigma were to be kept apart, or, as Dr. Gray expresses it, "as if the object were how not to do it." There is no doubt that in a large number of cases the stamens and the stigmas are kept apart, so that the flower shall not be

Fertilized by its Own Pollen.

And in such cases there are generally special arrangements made for bringing pollen from other flowers. In carrying out this, insects have a very important office. When an insect visits a flower, it does not simply go there to get honey. There are two objects. The insect gets honey for itself, and in turn it carries pollen for the flower.

I will now call your attention to a few plants that you may meet. I think none of them are

plants but that you can examine for yourselves. The first, is *Viola Tricolor*, the little pansy, or heart's-ease. This is the little, cultivated flower, considerably changed from the wild flower, which is found in Europe, but universally known as the pansy. And after I have told you what I have to say about these, you can make your own examination and verify my statements. I have here some diagrams to show its principal peculiarities. One peculiarity is that, take the plants as they grow wild, they grow in two forms; a large form and a small one. Now one form is large enough so that insects can visit it, but the small form is too small, so it has to take care of itself.

[The Professor then by the aid of numerous figures explained the structure of the large form of the violet, showing clearly that the pollen from any flower could not possibly fall upon or into its stigma, but that there were special contrivances and lures for enticing the insect into certain parts of the flower, and then compelling it to carry pollen to the stigma of the next flower. On the other hand it was shown that the small-flowered form, being too small for insects, had to shift for itself; hence it is so modified that its pollen can fall upon its stigma—in other words it can fertilize itself.]

The plants belonging to the genus *Primula*, or the primroses, show some peculiarities. I have here figures showing the peculiarities of the primrose. (See Fig. 2.)

In this case we have what is called dimorphism; that is the flowers grow in two forms. The little pansy just spoken of gives you an idea of what one kind of dimorphism may be; here, however, we have another kind. By referring to Fig. 2 it will be seen that the dimorphism of the primrose relates to its stamens and pistils. In one form (shown at *a*) the style reaches to the top of the corolla, while the stamens are situated near the middle; while in the other form (shown at *b*, the style is short and the stamens are situated at the top of the corolla.

Now the explanation of it is quite simple. We find that these are always visited by insects. The arrangement is simply in order to prevent the pollen which grew in these stamens from getting upon the stigma. In all such cases, honey is placed

Down in the Bottom of the Flower.

The insect, in search of honey pushes the style of *a* to one side and crowds by the stamens; there it wriggles around, gets itself thoroughly covered over with the pollen and then gets back. Now it goes to the other form (shown at *b*), enters it, and you will observe that here the stigma is just at the same height as were the stamens in the other, so that the pollen-covered portions of the insect's body will come in contact with the stigma and so cause fertilization to take place. Observe that the positions of stigma and stamens are corresponding, so that they readily can cross fertilize.

Here, the plant takes on the habit of producing different kinds of flowers, almost always on different plants, but always belonging to the same species, for the purpose of engaging insects to carry its pollen.

[The structure of the *Arum*, an endogenous plant, was then explained with the aid of diagrams. It was pointed out that the flower first entrapped the insects and kept them prisoners for a time, when having used them as much as it wanted to, it secreted a few drops of honey for them as a peace offering and then let them go.]

There are peculiarities in the common barberry which have long attracted the attention of botanists and a great many others. [The Professor then referred to illustrative diagrams.] Now, it has long been known that when the stamens are touched, they will on account of their irritability, move up to the center of the flower with a quick jerk. If you take a pin and touch them, down at their base, they will very suddenly fly up close to the pistil. I suppose this is known to everybody who cultivates the barberry. This was formerly supposed to be an excellent arrangement for securing self-fertilization. Somebody, however, after Mr. Darwin began his shrewd and careful investigations, found that the stamens were not quite long enough to secure self-fertilization. Now, the arrangement, if we look at it from another standpoint is a very efficient one. I suppose that if the botanists of twenty years ago had discovered that the stamens were too short for self-fertilization, they would have supposed it was a blunder or something else like it, in nature. We now know, however, what it means. At the bottom of the stamens is placed a honey gland. Insects coming and plunging down into the flower always strike the stamens which makes them suddenly start up. The result is, the insect is

Covered Over with Pollen.

Now, when the insect gets thoroughly covered over, it goes to the next flower, plunges down on that and it cannot fail to leave some of the pollen there and so it goes from flower to flower carrying pollen from one to the other.

Another plant which you can readily find, is the little *Portulaca*, often called moss rose. It is somewhat like the barberry, only that in this case the stamens are still more sensitive.

In the sage, the one grown for its flowers, *Salvia officinalis*, we have only two stamens and they are made on a peculiar plan, having a hinge like arrangement allowing one part to rotate upon the other. It belongs to the labiate group, and has its lower lip made very large to serve as a "lighting board," as Mr. Darwin has called it.

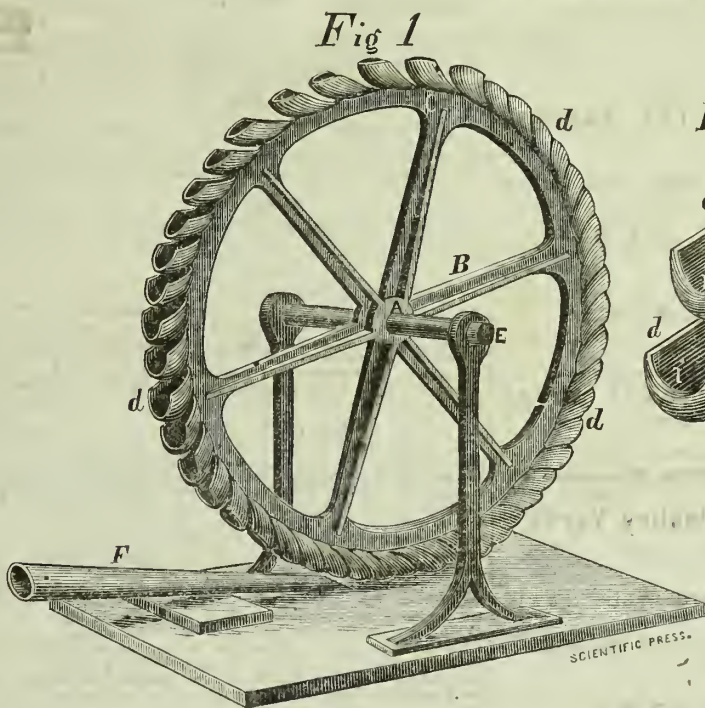
[Here again, by the aid of drawings, the speaker explained that when an insect attempted to enter the flower, it rotated the stamens in such a way that the pollen was thrown on the back of the insect, where upon visiting other and older flowers it would come in contact with the stigma.]

In the orchids, the arrangements are in some cases exceedingly complex, and frequently this mechanism is such as to almost pass belief; that is, it seems almost impossible that a flower should have such peculiar contrivances just for the purpose of getting its pollen upon some peculiar insect. As a rule, they are incapable of self-fertilization. That is, if insects or other active agencies were taken away, in almost all cases, fertilization could not take place. I told the class yesterday about the vanilla plant,



Claytonia in its First and Second Stages.

which was taken from America to the East Indies, but in so doing they neglected to take the insect along, and the result was, the culture of the vanilla there was not a success, until some shrewd man guessed the trouble, and took the insects along, when vanilla growing became successful. Orchids are, in almost all cases, gayly colored, or they have peculiar forms, peculiar odors or an abundance of honey—



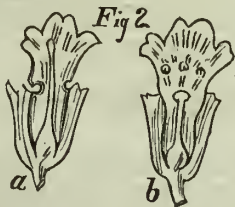
S. N. KNIGHT'S IMPROVED HURDY-GURDY WATER WHEEL.

something about them always which is attractive to insects. You may

Lay it Down as a Rule

That when a flower has need for an insect to visit it, it will hold out some inducement for that insect to come.

The arrangement of the parts of the flower is



Dimorphism of the Primrose. a, Long-styled Form. b, Short-styled Form.

always complex in the orchids, so that usually the young botanist is puzzled in getting at their structure. [The Professor then, by means of numerous drawings, explained the intricate structure of orchids, and the various contrivances which aid in securing fertilization through insect agency.] Sticky pads attached to pollen masses, are so placed as to adhere to the heads of insects visiting the flowers for their honey; and these pollen masses are then carried by the insect to the next flower; by which time they have actually bent down at

Just the Right Position

To enter the surface stigmatic. In other cases, as in the lady slipper, the insect is compelled to go into the flower at one door and to go out at another; bringing in at one door pollen from one flower to be left, and carrying out at the other, pollen to be taken to the flower next visited.

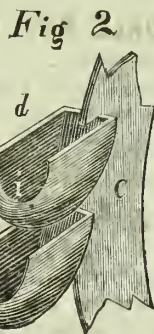
"TURF REGISTER."—We have received from the office of the *Turf, Field and Farm*, a copy of the *American Turf Register* for 1874, designed for use in 1875. It contains the entries for stakes of 1875-6, together with complete tables of the fastest time made by running and trotting horses during 1874. From a hasty review it appears, to our un sportsmanlike eye, to be compiled with care, and, to those interested in such matters, will be found valuable for reference.

Improved Water Wheel.

Mr. S. N. Knight, of Sutter creek, California, has recently patented through the MINING AND SCIENTIFIC PRESS Patent Agency, an improved form of bucket for use in hurdy-gurdy wheels. The invention also comprises an improved method of fastening buckets to the wheel, so as to materially increase the effectiveness of the wheel and reduce the cost of construction.

The accompanying cuts show the design in detail. Figure 1 is a perspective view of the invention, and Figure 2 is an enlarged view of some of the buckets. A represents the hub, B the spokes, and C, the felloe of a cast iron wheel. Around the rim C, of the wheel, are secured wrought iron or equivalent pressed, or forged buckets d, d. In this class of water wheels, the wheel is secured upon a horizontal shaft E, as that it rotates in a vertical plane; and the water is delivered upon the buckets by a nozzle F, which may be arranged to deliver the stream upon the buckets at any desired point in the circumference of the wheel rim. The comparative effectiveness of the wheel will, therefore, depend on the capacity of the buckets to utilize the force of the water as it leaves the nozzle; it being necessary that the buckets be not only capable of receiving the force of the entire stream, but also that they free themselves easily the moment the force of the water is expended.

The buckets d, d, d, are made of wrought



HORTICULTURE.

Present and Future of California Fruits.

EDITORS PRESS:—Can any good reason be given, or valid excuse offered, for the people of our State continuing to devote their energies, talents and capital to objects almost wholly speculative in character, when so many legitimate channels are open in which they might be directed to advantage; interests which, if but partially developed, would pay more regular and larger dividends than any of the famed bonanzas of the Comstock.

At this point I proposed to leave the highway of generality, following the narrow pathway of a specialty which is destined, ere a decade shall have passed, to become the dominant interest of this coast. There are several varieties of fruit, the most popular of which it is conceded can be produced in no other part of the world in such perfection and excellence as in the valley and on the western slopes of the Sierra Nevada and Coast Range of mountains. California will undoubtedly monopolize the grapes, apricots, nectarines, plums and prunes almost wholly, and go far in doing so with peaches and pears. This can be said of the apricot and nectarine, plum and peach also, as here they escape the numerous foes which commit such depredations upon them in the older States and Europe, as to discourage, in a great measure, their planting and cultivation.

Taking our figures from the last report published of the California State Agricultural Society for the years 1870 and '71, there was in the State 27,000,000 grape vines, 80,000 apricot trees, 32,000 nectarines, 250,000 plums, 20,000 prunes, 1,000,000 peaches, 500,000 pears, which, if apportioned equally among the farmers, would give to each 900 grapes (an acre), 2½ apricots, 1 1-15 nectarines, 16½ plums and prunes, same of pears, and 3¾ peaches. Hardly enough, we would imagine, for supplying the fruit growers themselves and their families, and yet we find, in the case of the grape, that after meeting home requirements, the local and San Francisco markets, the Nevada and mountain trade, tons were dried or made into raisins. This is not all, as the report shows that there was manufactured that year 3,795,729 gallons of wine, and 157,964 gallons of brandy, which would have required fully 70,000,000 pounds of grapes. The crop can safely be put down at a hundred million of pounds, which would then average 3¾ pounds to the vine. To the number of trees and vines given in the report from which we quote, fully one-third to one-half more may now safely be added as showing the actual number as well as increase since that date.

It is most satisfactory to note the change of sentiment manifested by the people throughout our State in regard to fruit culture, and see how energetically some of the longest headed and shrewdest have taken hold in developing it. When comparing the fruit product of California with what is required for supplying the demand of the Atlantic States alone, it must be evident to the dullest comprehension, that no part of the world offers as favorable and broad fields for intelligently directed industry. In order that those of your readers who have never given this subject their attention, may better appreciate its value; a few facts and figures will be given, which cannot fail of convincing the most incredulous, that fruit growing in California is not, nor is it possible for it ever to be "played out."

In the year 1874, over fifteen million dollars in gold was expended for dried fruits that came from southern Europe. Every pound of which could have been produced in our State. Fifteen millions of California gold gone into the pockets of foreigners to supply the wherewithal for satisfying the appetites of a few of our countrymen. Five millions more for freight and charges, and we find that if it had been retained at home and divided equally among our fruit growers there would have been \$1,983 for each, or \$666 for every farmer in the State.

Running through the manifests we find the item of one and a half million boxes raisins of (25 pounds each,) which, with those in other form of packages, make over fifty millions of pounds, which at eight cents per pound is for \$4,000,000 for dried grapes alone. To this sum we can add another million of dollars for ripe grapes, shipped to the U. S. in barrels, kegs and boxes, which fruit is offered by dealers and vendors at the street corners, in all the principal towns and cities in the Union.

I purposed in beginning this communication to give the result of gleanings while among the fruit dryers, buyers, producers and merchants of the Eastern States, during an extended trip a few months since, which will interest, and perhaps benefit those engaged in fruit culture in this State. Having already exceeded the limits you can possibly grant an individual, where so many wish a hearing, I will reserve for another occasion what I saw and learned about several kinds of fruit dryers from those who had, and were operating them, gaining in this way much valuable information that would have required years of personal experience to have acquired. By comparing their respective cost of construction, operation, quality of products, etc., it was an easy matter to select.

G. C. PEARSON.

South Vallejo, Feb. 15, 1875.

POMONA GARDEN AND NURSERY.—One of the most complete, of the many catalogues that have reached us the present season, is that issued by William Parry, proprietor of the above nursery, which is located at Cinnaminson, Burlington county, N. J. The advertisement of this establishment, will be found in its appropriate place in our paper.

EXCELLENT PIPPINS.—Mr. C. W. Pomeroy, of San Jose, sends to the RURAL PRESS a box of New Town pippins which we have not seen surpassed in beauty and eating qualities. This is not the first item of this character that we have been called upon to credit to Mr. Pomeroy, and as usual we tender him our hearty thanks.

ON FILE.—"All About Castor Beans," W. A. S.; "Letter from Tehama County," A. J.; "Acacia Gold," J. C. C.; "Farm House Chat," Mary Mountain; "Review of G. K. M." P.; "The Rattle Weed," a reader; "Letter from National City," L. R.; "Letter from Nilson, Bente County," A. M. W.

BREEDERS' DIRECTORY.

PURCHASERS OF STOCK WILL FIND IN THIS DIRECTORY THE NAMES OF SOME OF THE MOST RELIABLE BREEDERS. OUR RATES.—Six lines or less inserted in this directory at 50 cts a line per month, payable quarterly.

CATTLE.

R. ASHBURNER, Baden Station, San Mateo Co., Cal., breeder of Short-horn cattle. Pure Bred Bulls for sale, from cows of choice milking strains.

J. BREWSTER, Galt Station, Sacramento Co., Cal., breeder of Short-Horn Cattle.

J. D. CARR, Gabilan, Monterey Co., Cal., breeder of Trotting Horses, Short-Horn Cattle, Thoroughbred Spanish Marino Sheep and Swine.

A. MAILLAIRD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.

W. L. OVERHISER, Stockton, San Joaquin Co., Cal., breeder of Short-Horn Cattle and Berkshire Swine.

PAGE BROTHERS, 304 Davis street, San Francisco, (or Cotate Ranch, near Petaluma, Sonoma Co.): Breeders of Short-Horns and their Grades.

STANTON & POWERS, Sacramento, Cal. Choice Jersey Heifers at reasonable rates, Address L. C. Powers, Sacramento, Cal.

MOSES WICK, Oroville, Butte Co., Cal., breeder of Short-Horn Cattle. Young bulls for sale.

SHEEP AND GOATS.

MRS. ROBERT BLACOW, Centerville, near Niles Station, Alameda Co., Cal. Pure-Blooded French Merino Sheep for sale.

THOS. BUTTERFIELD & SONS., Hollister, San Benito, Cal. Importers and breeders of Angora Goats and Sheep.

N. GILMORE, El Dorado, El Dorado Co., Cal., importer and breeder of Angora Goats.

LANDRUM & RODGERS, Watsonville, Santa Cruz County. Pure-Bred Angora Goats and Cotswold Sheep for sale.

SEVERANCE & PEET, Niles, Alameda Co., Cal., breeders of Thoroughbred Spanish Merino Sheep.

A. G. STONESIFER, Hill's Ferry, Stanislaus Co., Cal., breeder of Pure-Blooded French Merino Sheep.

L. M. SHIPPEE, Stockton, Cal. Importer and breeder of Spanish Merino Sheep, Durham Cattle and Essex Swine.

POULTRY.

GEO. B. BAYLEY, Cor. 16th and Castro streets, Oakland, Cal. Imported Brahmas and other choice Fowls for sale.

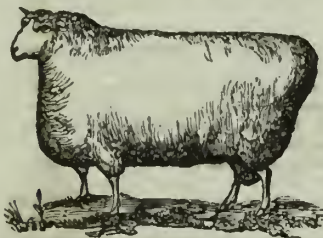
ALBERT E. BURBANK, 43 and 44 California Market, San Francisco, importer and breeder of Fancy Fowls, Pigeons, Rabbits, etc.

M. EYRE, Napa. Bronze Turkeys, Emden Geese, Choice Fowls, Pigeons, Rabbits, Ferrets.

Mrs. L. E. McMAHAN, Dixon, Solano Co., Cal. Bronze Turkeys now ready for sale from the best imported stock; also eight varieties of choice Chickens; Eggs in season can be purchased very reasonably.

Mrs. L. J. WATKINS, Santa Clara. Premium Fowls. White Leghorn, S. S. Hamburg, Game Bantams, and Aylesbury Ducks. Also, Eggs. 21v8-3t

B. W. OWENS, San Francisco. | E. MOORE, Stockton, Cal.



OWENS & MOORE,
COMMISSION MERCHANTS,
DEALERS IN
WOOL, HIDES, PELTS AND GRAIN.
Office—405 Front street, S. F. 14v7-3m

THE CELEBRATED
H. H. H.
HORSE MEDICINE

IS STILL AHEAD OF ALL OTHERS.

The Wholesale Druggists of San Francisco, give evidence of its appreciation throughout the State, by and rapidly increasing orders. We pledge it a cure for SPRAINS, WIND GALLS, SWEENEY, SCRATCHES,

LAME AND STIFF JOINTS, CALLONS, LUMPS, AND ALL BLEMISHES, SPRAINS OR BRUISES.

It is a household blessing and no family should be without a bottle in the house. For sale everywhere.

WILLIAMS & MOORE, Prop's.,
Stockton, Cal.

25v8-6m

H. K. CUMMINGS, 1858.

H. H. BALSTON, 1875.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission House,

ESTABLISHED 1868.

No. 424 Battery street, southeast corner of Washington, San Francisco.

Our business being exclusively Commission, we have interests that will conflict with those of the producer.

4v23-1y

\$5 to \$20 Per Day at home. Terms free. Address G. STINSON & Co., Portland, Me.

Poultry Breeders.

S. H. COOK,

BREEDER OF

CHOICE LIGHT AND DARK BRAHMAS,

B. B. R. Game Bantams,

Mammoth Bronze Turkeys,

TOULOUSE, BREMEN AND AFRICAN GEESSE,

ROUEN AND MUSCOVY DUCKS.

Some choice Light and Dark Brahmas for sale Also, Bronze Turkeys. Address

S. H. COOK,

McDonald's, Washington Co., Pa.

Send for Price-List.

EDGORTH POULTRY YARDS.

R. F. SHANNON,

Breeder of

Light and Dark Brahmas, Silver Duckwing and Black Breasted Red Game Bantams.

P. O. Box 568. PITTSBURGH, PA. Light Brahma Eggs, \$3, gold; Dark Brahma Eggs, \$5; Bantams' Eggs, \$3. Orders received for Pigeons to be delivered in the Fall. At Pittsburgh Show, January, 1875, on 4 coops fowls and 8 coops pigeons, won 5 firsts, 2 second, 1 third and 9 specials.

R. H. PECK,

BREEDER AND SHIPPER OF

Fancy Poultry and Eggs,

From Pure and Imported Stocks.

Having been very successful as an exhibitor, I solicit patronage. Address, with stamps, R. H. PECK, Earlville, Portage County, Ohio.

OAKDALE POULTRY YARDS.

SATISFACTION GUARANTEED.

Light Brahmas, Dark Brahmas, Buff Cochins,

Bronze Turkeys, Aylesbury and Rouen Ducks.

A. A. MILLER,

Oakdale Station, Allegheny Co., Pa.

Correspondence Solicited.

C. B. ELBEN.

I make a specialty of

Fine Light Brahmas,

AYLESBURY AND CALL DUCKS

BLACK AFRICAN BANTAMS, &c.

Send for my new Catalogue and Price List.

C. B. ELBEN, Pittsburgh, Pa.

E. M. Hively's Poultry Yards,

YOUNGSTOWN, OHIO.

20 Varieties Land and Water Fowls,

—ALSO—

PIGEONS AND EGGS IN SEASON.

Correspondence Solicited.

J. S. BEANER,

BREEDER OF

WHITE LEGHORNS.

My fowls are from stock that took the Special Premiums at the Boston Poultry Show in 1873 and 1874. Also at Pittsburgh this year. Eggs \$3 per setting. My P. O. address is Rochester, Beaver County, Pa. Correspondence Solicited.

J. S. HALVERSTADT & CO.,

Breeders and Shippers of

HIGH CLASS POULTRY

Embracing all

THE LEADING VARIETIES,

LEETONIA, OHIO.

Chicken Eggs, \$3; Turkey Eggs, \$5; Wild Geese Eggs, \$5. Letters of inquiry promptly answered. Descriptive Circulars and Price Lists sent on application.

WHITE LEGHORNS.

I make these fowls a specialty, and have spared no pains or trouble in procuring stock from the finest strains in the United States, and now offer eggs for hatching at Eastern prices from the finest fowls on the Pacific coast. They are small eaters, non-setters and very hardy, and for eggs are without a rival, being almost constant layers, and are truly styled the "farmer's fowl." Eggs, \$3 per dozen, (13) or six dozen for \$15. Securely packed to carry any distance, and delivered to the express on receipt of price. Cash to accompany order and orders taken in rotation.

Sebastopol, Sonoma county, Cal.

W. J. HUNT.

T. A. WINFIELD,

Hubbard, Ohio.

Breeder of CHOICE POULTRY, BRAHMAS,

COCHINS, BLACK AND RED GAMES,

GAME BANTAMS, HAMBURGS AND POLISH.

Also, Choice collection of Fancy Pigeons. Send for Price-List. Eggs for sale in season, from \$3 to \$6 currency.

LOOK!



ALBERT E. BURBANK, Importer and Breeder of Fancy Fowls, Pigeons, Rabbits, etc. Also Eggs for hatching from the finest of imported stock. gg and Fowls at reduced prices. send for Price List.

ALBERT E. BURBANK, 1v8-3m 43 & 4 Cal. Market S.F.

COMPTON & BINFORD,

REAL ESTATE BROKERS

Employment and Intelligence Office. Horse and buggy free to see property. Offices at Compton, and at corner of Court and Spring streets, Los Angeles, Cal.

Lands and Homes for Sale.

CENTINELA COLONY

LOS ANGELES CO. CAL.

SIX MILES WEST OF LOS ANGELES, CAL.

The unparalleled success of the

LOMPOC COLONY,

SANTA BARBARA COUNTY.

Has induced the "Centinela Land Company of Los Angeles" to subdivide and place in market for sale and settlement, under the direction and management of the "California Immigrant Union," of San Francisco, the "Centinela and Sausal Redondo" Ranches, containing Twenty-five Thousand Acres of Beautiful Valley Land, located seven miles west of the city of Los Angeles, and extending to and fronting on the Pacific Ocean. There is now on the tract an orchard of about three hundred acres, containing Orange, Lemon, Lime, Fig, Walnut, Almond and Olive trees, and a nursery of young Orange and Lime Trees. Some of the Orange and Lime trees are in bearing. The tract will be subdivided in twenty, forty, eighty, one hundred and sixty-acre farms, and sold upon easy terms and long credits.

Auction Sale of Town Lots

—AND—

5, 10, 20 and 40 ACRE FARMS.

WILL COMMENCE ON

Monday, Feb. 15, 1875, at 12 o'clock, M.

And continue Five Days. The sale will take place on the Rancho. Parties desiring to purchase should be on the ground a few days prior to the sale, in order to examine the property. Title—United States patent.

SITUATION.

"Centinela," with the addition of the "Sausal Redondo," contains 25,000 acres. The boundary of the Rancho commences three and a half miles from the city limits of Los Angeles, and extends to the Pacific Ocean.

TOPOGRAPHY.

"Centinela" is made up of one broad, level, fertile valley, of over twenty thousand acres, and beautiful fertile rolling hills near the ocean.

SOIL.

The soil is an exceedingly fertile loam, and is, without exception, the richest and most productive in Southern California. Its vicinity to the ocean insures a crop without irrigation. Excellent wheat has been raised for the last two years upon the hills adjoining the ocean. This wheat field contains 1,000 acres, and covers the lightest soil upon the Rancho. There is no alkali or barren land.

SEMI-TROPICAL FRUITS.

There are a few bearing orange and lime trees upon the Centinela, and the fruit they produce is of the largest and finest quality. There is an orchard containing 6,000 orange trees three years old, and 1,700 almond, lime and lemon trees. The almond, lime and lemon trees will bear fruit in 1875. The orange trees will bear in five years. There are 7,000 three-year-old orange trees in the nursery near the orchard. Fig, pepper and gum trees grow without irrigation. The entire orchard can be taken care of by three men with six horses. The orchard will be kept undivided by the company, to save the expense of each shareholder having a few trees to take care of. The almond, lime and lemon trees will yield an immediate return. In five years each orange tree will produce \$20 per annum, or \$300 per acre for those now planted. There are flowers in the garden in bloom every day in the year.

SHEEP.

A flock of about 14,000 sheep will be kept undivided, to save expense to the shareholders. The sheep will produce in increase and wool over \$2 each, yearly, over expenses. They will be grazed upon outlying and unsold lands of the company. The "No Fence" Law is in force in LOS ANGELES COUNTY.

CLIMATE.

The climate of the "Centinela" is without exception the finest and most equable in the world. It varies but little throughout the year. The mean temperature is about 60 degrees. The mercury falls but little below 60 in winter and rises but little above 60 in summer. You sleep under one pair of blankets and with your bed-room window open every night in the year.

AGRICULTURE.

The soil of the "Centinela" is admirably adapted for all kinds of grain, vegetables and fruit.

WATER.

The Centinela creek rises upon the Rancho and runs through the northern portion of the tract. It affords an abundance of clear spring water. The source of the Centinela creek consists of several natural artesian springs, showing that artesian water can be obtained by boring.

THE TOWN.

A square mile is laid off at an eligible point on the tract, with lots 31x135; avenue 100 feet and streets 80 feet wide. A stream of water can be brought in as far as to supply every lot with crystal, cool, sweet water. One of the forty-acre tracts is set apart for a College and Farm School, and there will be a Ten-acre Park on each of the four sides of the town, and Four Blocks in the center of the town for Public Buildings, Schools, etc. A large lot will also be set apart for each Religious Denomination, and a block given for the erection of a large hall by the different Fraternal, Grange and Temperance Societies.

FARE.

Parties desiring to visit the Rancho can take the 8:10 A. M. train of the Southern Pacific Railroad to Soledad, thence by Coast Line Stage to Los Angeles; by 4 P. M. train to Bakersfield, thence by stage to Los Angeles; or by Pacific Mail Co.'s and Goodall, Nelson & Perkins' steamships direct to Los Angeles, where conveyances can be had to go to the Rancho free of charge.

RAILROADS AND WHARF.

The Company intend building a wharf to enable Steamships from San Francisco and other places to land passengers on the tract. A narrow-gauge railroad will be built from Los Angeles to the wharf, a distance of about 12 miles. The Main Street and Agricultural Park Railway will soon be built to the park, about a mile from the tract. This railway will be extended to the tract as soon as the settlement will justify it. Lithographed maps can be had at the office in San Francisco. Apply to

W. H. MARTIN,

General Agent California Immigrant Union, 534 California street, between Montgomery and Kearny streets, San Francisco, to TEMPLE & WORKMAN, Bankers, or Gen. SHIELDS, Los Angeles, or O. L. ABBOTT, Corresponding Secretary State Grange Immigrant Aid Association, Santa Barbara.

P. S.—A second sale will take place on the Rancho, commencing on Monday, the 8th of March, 1875.

NINE FINE FARMS FOR SALE.

Near Middletown, Lake county, containing respectively 1600, 1100, 600, 300, 200, 130 and 80 acres. The most of these places contain as fine land as there is in California, and the home market averages twenty per cent, higher than San Francisco. When we take into consideration the quality of the soil, certainty of crops, the market caused by the development of mines and the Mineral Springs, the climate and privileges of schools and religious society, we are satisfied that no such inducements can be offered in any other part of the State, to those desiring to purchase land.

Having examined all these places personally, we can give a minute description of each. Apply to

JOSEPH PETTIT,

or WM. GORDON, No. 215 Kearny Street, Up Stairs, Ring the Bell. 3v9-1f

FOR SALE.

HOMESTEAD AND FRUIT ORCHARD

About thirty-five miles from Stockton, containing three acres of land, a good house of eight rooms, good well, etc. Over two hundred fruit trees all in fine bearing order; such as Peach, Pear, Apricot, Apple, Plum, Figs, Oranges. A fine chance and a good market. Price, \$1,800. Title perfect. Apply to

GEO. W. CHAPIN,

434 Montgomery street, S. F., or this Office.

5,500 ACRES

Of the best portion of the old NOMELOCKE RESERVATION, in Tehama County, for sale very low; only five dollars per acre; one-third down, one-third in one year and one-third in two years, with interest at one per cent per month. Will be sold all together or in two parcels. This is one of the finest tracts of grazing land in Northern California; is abundantly watered by numerous perpetual springs and has two miles of the Elder Creek, a clear mountain stream. Its grass never falls from drought, and is of the best quality for sheep and has no clover bnrr. 800 acres of level wild land; timber for posts, fuel, etc. Enquire of ALLEN WILCOX, Los Angeles, or F. B. WASHINGTON on the tract, twenty miles west of Tehama.

FOR SALE.

In the Riverside, Now England and Santa Ana Colonies, in the valley of the Santa Ana river, San Bernardino county, California, twenty thousand (20,000) acres of clean, rich, level, valley land, with an abundance of water for irrigation. There is no better land in the State for the orange and all other semi-tropical fruits, and no finer climate in the world. Inquire of W. T. SAYWARD, 420 Montgomery street, San Francisco; S. O. EVANS, Fort Wayne, Indiana; C. I. HUTCHINSON, 314 California street, San Francisco; L. UPSON, General Agent, Riverside, San Bernardino county, Cal.

KIMBALL CAR, CARRIAGE

—AND—

AGRICULTURAL IMPLEMENT

MANUFACTURING CO.,

Cor. Bryant and Fourth Sts., San Francisco

The CALIFORNIA TUBULAR IRON AND WOOD FRAME HARROW two, four and six-horse Iron Harrows, \$60, \$70 and \$75. Wood Frame Harrow, \$10 less on each side than the Iron.

The Harrow has an easy seat for the Driver. The middle section rests on three wheels with wings hinged on each side.

By use of Levers the Driver in his seat can raise or lower the Harrow, regulating at will the depth of the teeth in the soil, and in the same manner fold or raise the wings from the ground so as to drive from the road to the field, saving the use of a wagon.

Our CALIFORNIA SCRAPER is also made for the ease of the Driver, enabling one person to ride, manage the team and do the work.

Is adapted for leveling and preparing the surface of the soil for irrigation. And for making roads, removing dirt from ditches, cleaning barn yards, sheep corrals, etc.

The IMPROVED EAGLE HAY PRESS—Best in use on this Coast. Cheap, Economical, Powerful, and easily repaired.

Will press bales weighing from 250 to 325 pounds, using less rope than any other press.

Three men with a good team of horses will bale from 10 to 15 tons per day.

Adapted for baling wool, hides, cotton, rags or moss. Price, \$250. Weight of press, 2,500 pounds. Please send for circulars.

For Bleaching or Washing in Cold or Warm Water.

FALKINBURGH & CO'S

GRANGER SOAP

HAS NO EQUAL.

Don't fail to give it a trial, and be assured of a saving of money, time and labor. It speaks for itself. Warranted to accomplish more and do greater execution than any other soap. It is pressed, wrapped and performed.

ONCE USED, ALWAYS USED.

Sold by the principal Grocers throughout the country. Manufactured by

FALKINBURGH & CO.,

Oregon St., below Front, bet. Washington and Jackson, San Francisco, Cal. 4v9-10p

For the very best Photographs go to BRADLEY & RULOFSON'S GALLERY, with an "Elevator," 429 Montgomery street, San Francisco. 2v7-6m

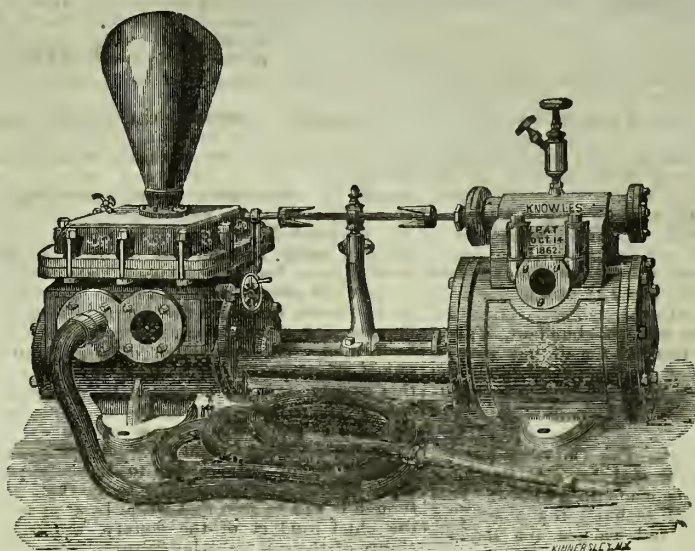
DURYEA'S SATIN GLOSS STARCH
AND
DURYEA'S IMPROVED CORN STARCH
Are the Best in the World.
USE IT ONCE AND YOU WILL USE NO OTHER.
For Sale by All Grocers.



The Messrs. Duryea have succeeded in refining Starch to entire purity and developing its entire strength and clearness, an improvement that will be readily perceived in the great strength of the Starch, the superior luster that it gives, and in its reliable uniformity. Much of the so-called starch contains from one-fourth to one-third foreign matter, readily perceived by sourness, mustiness, or a golden yellow tinge, peculiar to inferior starches, a color not desirable for one's linen, but inseparable from the use of common starch. They pledge themselves to the public to give a uniformly superior article, from one-fourth to one-third stronger than any other starch in the world, and at the common market rate.

EGERTON, ALLEN & CO., Sole Agents for the Pacific Coast,
San Francisco, California.

KNOWLES' PATENT STEAM PUMP.



It has no Cranks or Fly-Wheel, and has no dead points where it will stop, consequently it is always ready to start without using a starting-bar, and does not require hand-work to get it past the center. Will always start when the steam cylinder is filled with cold water of condensation.

CENTRAL PACIFIC R. R., OFFICE OF THE GEN'L MASTER MECHANIC, SACRAMENTO Cal., January 14, 1873.
A. L. FISH, Esq., Agent of the Knowles Steam Pump—Dear Sir: In reply to your inquiry as to the merits of the Knowles Steam Pump, in use upon this road, I will say that it gives me great pleasure to report that they have performed their work well whenever called upon. In no instance have they failed. We have now over 30 of them in use on this road as fire engines, and pumping water for shop and station use. I consider the Knowles Steam Pump the best in use, and prefer it to any other.
Yours, truly,
A. J. STEVENS, General Master Mechanic.

A. L. FISH, Agent Knowles' Steam Pump—Dear Sir: In answer to your inquiries, we state that the highest award for Steam Pumps at the Eighth or last Mechanics' Fair in San Francisco, was a FIRST PREMIUM and Diploma, awarded to Knowles' Patent Steam Pump, as published in the Official List September 23d, 1871.
W. H. WILLIAMS, Sec'y Board of Managers Eighth Industrial Exhibition, M. I.

WE BUILD AND HAVE CONSTANTLY ON HAND
The Largest Stock of Pumps in the World,
And for Every Conceivable Purpose.

SOLE AGENT ON THE PACIFIC COAST FOR THE
CLAPP & JONES SUPERIOR STEAM FIRE ENGINE,
Challenging the World!

THE CELEBRATED BOOMER PRESS,
For Wine, Cider, Lard, Paper, Wool, Hops, Hides, Tobacco, Rags, etc.—the Most Powerful in Use.

A. L. Fish, Agent,
Nos. 9 and 11 First Street, San Francisco, Cal.

P. S.—All kinds of new and second-hand Machines on hand.

4v29-1am-bp-3m

FIREMANS' FUND
INSURANCE COMPANY
OF CALIFORNIA.

Assets:

REAL ESTATE (unencumbered) S. W. cor. Sansome and California streets.....	\$165,000 00
LOANS ON BOND AND MORTGAGE, first liens.....	120,572 00
INTEREST due thereon.....	701 42
do due and accrued on stocks.....	640 00
UNITED STATES REGISTERED BONDS, par value, \$138,500; market value.....	148,195 00
SAN FRANCISCO CITY AND COUNTY do.....	18,000 00
CALIFORNIA STATE BONDS.....	1,000 00
SOUTH CAROLINA STATE BONDS.....	10,000 00
STOCKS, BANK OF CALIFORNIA, 200 shares.....	20,000 00
do FIRST NATIONAL GOLD BANK, 100 shares.....	10,000 00
BILLS RECEIVABLE, secured by collaterals, market value \$88,600—loaned.....	60,000 00
OASH in Company's Principal Office.....	5,892 86
do deposited in Bank of California.....	7,574 82
do do do do Sather & Co.....	9,286 01
do do do do Laidlaw & Co., New York.....	2,843 10
do do do do Union National Bank, Chicago.....	6,210 00
PREMIUMS in due course of collection.....	23,431 42
NET BALANCES in hands of Managers, Eastern and Western Departments, and in due course of transmission.....	25,749 00
BILLS RECEIVABLE, not matured, taken for Marine and Inland Risks.....	22,239 75
TAXES AND STREET ASSESSMENTS advanced on Real Estate, secured by terms of original Mortgages.....	3,073 19
RENTS due and accrued.....	250 00
OFFICE FURNITURE.....	5,661 12
Gross Assets.....	\$667,469 93

Liabilities:

LOSSES due and unpaid—none.....	
do reported and in process of adjustment.....	\$31,870 61
do resisted.....	2,126 25
MARINE BILLS payable.....	1,784 00
PERSONAL ACCOUNTS.....	2,159 35
Total.....	\$37,940 21

Net Assets, December 31, 1874.....\$629,529 72

COMPARATIVE.

NET ASSETS, December 31, 1873.....	\$558,418 50
NET ASSETS, December 31, 1874.....	629,529 72
Gain.....	\$71,111 22

D. J. STAPLES, President.
ALPHEUS BULL, Vice-President.

GEO. D. DORNIN, Secretary
WM. J. DUTTON, Assistant Secretary

RELIABLE. THE UNEQUALED.
ONE PRICE DRY-GOODS HOUSE,
42, 44, and 46, Third Street, San Francisco.
THE GOODS ARE ALL MARKED, IN PLAIN FIGURES,

PEIXOTTO & SILVERMAN.

THE BIRMINGHAM SHOVEL.
These Shovels have No Rivets nor Straps.
The blade is made of one piece of BEST SOLID OAST STEEL, the blade and shank being one piece.
THEY WILL WEAR TWICE AS LONG
As the ordinary shove They are the STRONGEST, BEST and CHEAPEST SHOVEL EVER MADE. Examine the engravings carefully and you can see how they are made.
THEY NEED ONLY TO BE TRIED
To prove their value. Prices same as ordinary shovels. Ask for the BIRMINGHAM SHOVEL. Take no other.
TREADWELL & CO., Sole Agents for Pacific States,
2v8-cow-bp San Francisco, Cal.

ARMES & DALLAM,
WHOLESALE DEALERS IN
WOOD AND WILLOW WARE
Baskets, Brushes and Twines,
Clothes Wringers,
Doty's Washing Machines,
AND
GENERAL HOUSE FURNISHING GOODS
And Manufacturers of
BROOMS, PAILS, TUBS, WASHBOARDS,
DASH,
CYLINDER,
THERMOMETER,
AND SQUARE BOX
CHURNS,
215 and 217 Sacramento St., San Francisco.
Hooper's South End Grain Warehouse.
Japan and Townsend Streets.

EMPIRE PARLOR MATCHES.
We have imported the requisite Machinery and Chemicals to add to our previous assortment of Matches the celebrated Parlor Match, deservedly popular among families and smokers, on account of brilliant burning qualities, and absence of smell or odor. Manufactured from the best sugar pine, a wood superior to any other, and found only upon the Pacific Coast. They are full count, and without objection of any kind. Packed in boxes of most desirable style. Brimstone and Safety Matches of superior quality manufactured, and are guaranteed to give entire satisfaction. Encourage Home Industry, and get superior goods at less cost than the imported article.
Ask your Grocer for the EMPIRE PARLOR MATCHES, and he sure you get no others. For Sale by all Grocers.
B. BENDEL & CO.,
MANUFACTURERS, 318 FRONT STREET.
FACTORY—Corner Eleventh and Harrison streets, S. F.
166-cow
J. M. NEVILLE. G. H. BRYANT
NEVILLE & CO'S FACTORY
113 Clay and 114 Commercial Sts.,
SAN FRANCISCO.

BAGS of All Kinds,
TENTS, All Sizes and Descriptions.
HOSE for Hydraulic Use.
CANVAS, All Numbers.
TWINE for Sewing, Etc.
Orders Wanted at the National Employment office, 608 Market street, room 9; office crowded daily with good men and women, seeking employment; particular attention paid to country orders.
25v8-6m
A. BRANDT & CO., Prop's

AGRICULTURAL NOTES.

AMADOR.

CROP PROSPECTS.—The Amador Ledger says: The crop prospect in the county presents a very flattering promise of a future heavy yield. The young grain under the influence of the late rains is springing rapidly up and assuming vigorous growth, and from present appearances the hay crop will be the heaviest produced in the county since farming has become one of our industries. A much larger area of ground has been placed under cultivation than in any previous year, which, added to the favorable season, will be likely to produce a yield heretofore unprecedented. The fruit and grape crop likewise will be abundant, a good market opened up this Fall for all that may be produced in the county. Take it all in all, the agricultural outlook of the county is very flattering.

BUTTE.

RAISINS IN BUTTE.—The Chico Enterprise says: "We had contracted the idea that good raisins could not be made in America. This year has dispelled all such impressions. The raisins now raised and packed on Rancho Chico are infinitely superior to any we have ever seen or tasted. They are superior in size, being at top and bottom of box large and uniform; they are juicy, and will always retain the same, and their flavor cannot be excelled. General Bidwell has planted extensively of the raisin grape, and is still planting; has employed the best of skill, and within a few years Rancho Chico will be as noted for its large and superior supply of raisins as the plantations of Malaga have ever been."

COLUSA.

WHEAT AREA.—Mr. Baylis, of Colusa county informs the Chico Enterprise that 36,000 acres of land are under cultivation on the Glenn farm this season, as follows: By Balis, 7,500 acres; by Gupton, 7,500 acres; by Hoag, 8,000 and Dr. Glenn, 13,000 acres. Baylis also has in wheat, independent of the above, 6,000 acres on the Bullard lands; Gupton, 2,000 on his home farm and Hoag 2,200 on his home farm. For putting in the crops there have been employed on this farm 1,000 head of mules and 300 men. Summer-fallowing is being pushed forward rapidly and crops are looking fine. Summer-fallow grain is too far advanced and stock will be turned in to keep it down.

KERN.

THE PROSPECT.—W. Canfield remarks, in the Bulletin: Kern county is not a wheat producer. The experience of our farmers—those at least who have had energy sufficient to try the experiment—has been discouraging for that business, so that from raising 15,000 sacks four years ago we have come down to about 3,000 sacks the last year, and that while the population has more than doubled. It is doubtful whether more than three hundred acres have been sown this season. Such as I have seen looks well. Our rains have been copious, but we do not calculate upon a crop with any certainty without irrigation.

THE HYDE STEAM WAGON.—The Kern county Courier of a late date states that the Hyde steam wagon employed on the farm of Mr. Carr, having been provided with a suitable gang of plows is now doing excellent work. It is employed at present in plowing a tract of land half a mile in length. It travels at a rapid rate, leaving behind it a strip of well cultivated ground twelve feet in width. For a large share of the tractive work of the farm, it is proving itself to be not only better, but far less expensive than horses.

LAKE.

FARMING.—Lake Co. Bee, Feb. 18: In Big Valley, in fields planted early in the winter, the young grain is now three or four inches high and it looks first rate. In Scott's Valley, those who have not yet sowed their grain are plowing and preparing their land for planting crops. On Morrison's ranch, on the northeastern side of the lake, the planted fields are looking finely, the young grain being about six inches high. A good deal more grain will be raised in Lake county this year than was last season, and the prospects are good for a large crop.

LOS ANGELES.

GRAIN AREA.—A correspondent of the Bulletin, in a recent letter from Anaheim, says: "I think the area sown with wheat this year in this county will not exceed 5,000 acres. The acreage under barley is at least fifty per cent. more than ever before. So, also, will be the acreage planted with corn, as the soil is so thoroughly saturated that a great deal of upland will be planted with it, and crops raised without irrigation. At Anaheim the rain gauge indicates a rainfall of 13 inches, while the rainfall at Los Angeles is reported at 21 inches. I think the former is nearer correct. " " " Grass is plentiful and sheep men are jubilant."

MONTREY.

FARMING OPERATIONS.—Says a correspondent of the Bulletin: In ordinary seasons, seeding-time and harvest are much later in Salinas valley than in other sections of the State. There has been more than the usual delay this year, owing to the insufficient rainfall in November. The quantity of moisture which then fell was not enough to enable farmers to plow and sow the immense area in the valley, apportioned for cultivation this season. The protracted dry weather which followed these light rains, and the accompanying severe frosts, greatly re-

tarded the growth of wheat grain was sown, and plowing was altogether suspended. But with the subsequent abundant rains there was a revival of operations on a still greater scale than before. Much of the land plowed and seeded earlier in the season had to be worked over again.

A Salinas City correspondent, who has carefully canvassed the situation, making his inquiries among grain dealers, Grangers and leading resident farmers, informs us that the total number of acres under cereal cultivation in Monterey county this year, is computed at 100,000, of which 75,000 acres is in wheat, 20,000 acres in barley, and the rest in oats, rye and other cereals, flax, etc. This estimate does not include the acreage devoted to the cultivation of the potato, for which the county is becoming famous, and of which no correct estimate can be formed. The cultivation of the potato is one of the important agricultural industries of this county, and is increasing in importance yearly, as the increasing means of transportation are lessening the expense of conveyance to market. Cheap freight gives cultivators here a wider margin with which to compete with other localities situated nearer to market. Although it will be seen that wheat is, at present, the chief product of the county, the adaptability of the soil to barley culture, the uniform demand for that description of grain and the high price which it commands, is gradually inducing farmers to raise it in preference to other cereals. The season so far has been extremely propitious, although the rainfall has been light, but what rain has fallen has been so evenly distributed that crops of all kinds now present a flattering appearance. With the usual March rains and prevailing fogs, the yield of Monterey county the coming harvest season will nearly double that of last.

There has been the customary cultivation of virgin land this year, all to the south of this—Salinas City. The narrow-gauge road to Monterey has had a notable effect upon the settlement of land in its vicinity. The enterprise has been the means of inducing the owners of the large land grants in the valley to subdivide them into small farms and rent them to settlers for cultivation.

NEVADA.

RESTING HIS LAND.—Foothill Tidings, Feb. 20: Mr. D. D. Thrasher, whose farm is situated near Wolf creek, several miles below town, tells us he is not cropping his land this year, but will plow it up for summer fallow and let it rest. By thus resting over one year he will be enabled to take time by the forelock and drive his work instead of letting his work drive him.

BLOOMING.—Almond trees and several kinds of flowering shrubs are bursting into bloom here in our garden, and crocuses and hyacinths which have stood out entirely unprotected all winter, are in full flower. How does this compare with the news from New York, about in the same latitude, where they have had one of the coldest weeks experienced for some years?

PLACER.

EARLY.—Placer Herald, Feb. 20: Many kinds of fruit trees are now in bloom, in this section, and all vegetation is growing thrifty. The season is decidedly the earliest we ever knew in this State. We have now on our table a stalk of barley between two and three feet long, with a fine large head on it, of this year's growth.

PLUMAS.

DRY SEASON APPREHENDED IN PLUMAS.—The Plumas Sentinel of a recent date remarked that for several weeks past the weather has been almost like summer, and were it not for the frosty nights one would imagine that spring had put in an appearance. While at present this is very pleasant, the outlook ahead is such as to raise serious apprehensions for the coming season. Notwithstanding the heavy rain-storms, the ground is not so full of water as usual at this season. This is accounted for by the fact that it was frozen to the depth of a foot when the rain came, and the most of the water ran away instead of settling into the ground. There is, compared with other seasons, but little snow on the mountains. Nothing but the higher mountains are covered, and unless at some point where it has drifted we do not think snow can be found in the county over four feet deep. That is the present depth at Onion valley, where at this season it is usually from twelve to twenty feet. Many of our hydraulic miners depend almost entirely on the snow-water, and unless the weather changes soon, and the storms hold out much longer in the spring than usual, the water season will be unusually short. The prospects of the farmers for good crops are fair, but as they depend to a great extent on the miners for a market, their share of the ill results of a short water season is, indirectly, almost equal to the miners.

SAN BENITO.

PLOWING AND SEEDING.—The heavy rains of last month caught many of the farmers in San Benito valley with their work of plowing and seeding unfinished. Operations have, however, been resumed since, and an increased acreage under wheat is the result. Considerable land heretofore employed as pasture for sheep has been turned over to the plowshare of the husbandman, and the rich meadows where flocks were wont to roam will hereafter be carpeted luxuriantly with waving grain.

SAN JOAQUIN.

WHEAT ACREAGE.—A. C. Paulsell, President of the Farmers' Co-operative Union of San Joaquin valley, says: "There are as many acres seeded to wheat, and perhaps more, in San Joaquin, Stanislaus, Merced and other counties in the San Joaquin valley than there were last year. So far the season has been everything

our farmers could wish. We had good rains in November. Through the month of December and the fore part of January we had no rain, enabling our farmers to cultivate all kinds of land. At this writing we have had all the rain we need, and should we get some light rains this month and in March and April, our yield will be large." J. D. Peters, of Stockton, writes that the increase in the acreage under wheat in San Joaquin county this year is about ten per cent. that of last year, which he places at 24,000 acres. The reason he gives for the increase is that the season has been more favorable for winter plowing than ever before. The area under barley last year he places at 40,000 acres, and he estimates the area this year at 50,000 acres; rye, last year, 1,700 acres; this year, 2,000 acres. The rainfall up to this writing is 10 inches, which is a fraction over that of last year.

SAN BERNARDINO.

LOOKS WELL.—A San Bernardino correspondent says that the acreage under wheat in that county this year is about the same as it was last year, say 3,000 acres. "The growing grain," he says, "looks well. It has not suffered any from the late heavy rains, which have not been as heavy here as they have been farther north, nor from the heavy spell of cold weather, which has been rather severe on young orange trees. We have enjoyed warm, clear weather since the rains ceased falling, and we look forward to harvesting an abundant crop of everything."

SUTTER.

HOME INDUSTRY.—A Pleasant Grove correspondent of the Sutter Banner says: Messrs. Elkins & Finfield and Daniel Curry raised some broom corn, and are busily engaged in making brooms. I have visited the former factory, tried their brooms, and find them a good article, and expect to visit the latter at some convenient time and report the progress of the same. The weather at this time and for the last few days has been extremely foggy in the fore part of the day, but pleasant in the after part. The universal prayer in this section is that the weather may hold good until they finish plowing and sowing barley. The water has receded, and everybody is busy at work.

SACRAMENTO.

GOOD AVERAGE.—A correspondent of the Sacramento Valley Agriculturist, giving an account of his trip through this county, makes an estimate of the coming harvest on the plains in the vicinity of Antelope, and says that "if the yield is anything near what is now anticipated, it will average twenty-two bushels of wheat and twenty-eight of barley to the acre."

STANISLAUS.

THE OUTLOOK.—The Stanislaus News regards the outlook of this county as being more flattering for a good grain crop than ever before. Sowing was completed a month earlier than usual, owing partly to the favorable condition of the weather, but more particularly to the fact that farmers have learned something from past experience. The young grain will have much more time this season to perfect its growth, and will be better able to stand the season of drought when it sets in. The same authority credits the county with more than the average acreage under grain.

VENTURA.

The Santa Clara and Ojai valleys, in Ventura county, are devoted principally to barley culture, and the acreage sown there with this cereal has been considerably increased this year. The area under wheat in San Luis Obispo county is much less than in any of the southern counties, most of the land under cultivation being devoted to barley. The quantity of wheat it will produce will cut no figure in the aggregate crop returns of the State.

PATENTS & INVENTIONS.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

[FROM OFFICIAL REPORTS FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.]

By Special Dispatch, Dated Washington, D. C., Feb. 23, 1875.

FOR WEEK ENDING FEB. 9, 1875.

BATH-TUB ATTACHMENT.—Thomas D. Woolsey, S. F., Cal.

VELOCIPEDE.—Walter Knight, San Andreas, Cal.

CARRIAGE SPRING.—William S. Higgins, Oroville, Cal.

QUICKSILVER FURNACE.—C. A. Luckhart, S. F., Cal.

STEAM ENGINE.—William Wilcox, S. F., Cal.

RE-ISSUE.

BROOM MACHINE.—Henry Anderson, S. F., Cal., and James F. Houghton, Sacramento, Cal.

"The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue. NOTE.—Copies of U. S. and Foreign Patents furnished by Dewey & Co., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with effect security and in the shortest time possible.

THE "Seed Annual of D. M. Ferry & Co., Detroit, Mich., is advertised in our columns. Write to them and get the "Annual" Free.

Banking and Financial.

Grangers' Bank of California

INCORPORATED APRIL 27th, 1874.

Capital \$5,000,000, in 50,000 Shares of \$100 each.

Directors:

PRESIDENT—JONATHAN V. WEBSTER..... Alameda
V. PRESIDENT—O. J. CRESSEY..... Stanislaus County
THOMAS MCCONNELL..... Sacramento
JOHN G. HILL..... Ventura County
J. V. WEBSTER..... Alameda County
JUSTICE C. MERRYFIELD..... Solano County
J. LEWELLIN..... Napa County
GILBERT W. COLBY..... Butte County
J. P. CHRISTMAN..... Contra Costa County
F. J. WOODWARD..... San Joaquin County
C. S. ABBOTT..... Monterey County
F. A. CRESSEY..... Secretary.

Office, 415 California Street,

SAN FRANCISCO. - - CALIFORNIA.

The Bank was opened on the first of August, 1874, for the transaction of ordinary banking business. Current Accounts are opened and conducted in the usual way, and interest at the rate of 4 per cent per month is allowed on the minimum monthly balance. Deposit Receipts in sums of \$50 and upward received, and receipts given for the amounts, repayable on 30 days' notice of withdrawal. These deposits bear interest at rates varying with the current rate of discount. Deposits for Fixed Periods are received, and interest allowed at the following rates: Three months, 6 per cent.; Six months, 7 per cent.; One year, 8 per cent. A share of the patronage of the public is solicited.

The Pacific Mutual Life Insurance Company of California.

No. 41 Second street, - - - Sacramento

ACCUMULATED FUND, NEARLY

\$1,250,000.00.

\$100,000 Approved Securities, deposited with the California State Department as security for Policy holders everywhere.

LELAND STANFORD..... President
J. H. CARROLL..... Vice-President
JOS. CRACKBON..... Secretary

All Policies issued by this Company, and the proceeds thereof, are exempt from execution by the laws of California. THE ONLY STATE IN THE UNION that provides for this exemption. Policies issued by this Company are non-forfeitable, and all profits are divided among the insured. Policies may be made payable in Gold or Currency, as the applicant may elect, to pay his premium.

Executive Committee:

LELAND STANFORD, J. H. CARROLL,
ROBT. HAMILTON, SAMUEL LAVENSON,
JAS. CAROLAN.

SCHREIBER & HOWELL,

11-29-cow-hp-3m General Agents, Sacramento.

Anglo-Californian Bank.

LIMITED.

Successors to J. Seligman & Co.

London Office.....No. 3 Angel Court
San Francisco Office.....No. 412 California street.

Authorized Capital Stock, \$6,000,000,

Subscribed, \$3,000,000. Paid in, \$1,500,000.
Remainder subject to call.

DIRECTORS IN LONDON.—Hon. Hugh McCulloch, Renben D. Sawson, William F. Schofield, Isaac Seligman, Julius Sington.

MANAGERS:

F. F. LOW and IGNATZ STEINHART,
SAN FRANCISCO.

The Bank is now prepared to open accounts, receive deposits, make collections, buy and sell exchange, and issue Letters of Credit available throughout the world, and to loan money on proper securities.

California Farmers Mutual Fire Insurance Association.

Office, 6 Leidesdorff St., - San Francisco.

Directors:

A. WOLF, A. W. THOMPSON, I. C. STEELE,
I. G. GARDNER, J. C. MERRYFIELD, J. D. BLANCHARD,
G. P. KELLOGG, Treas.

Finance Committee:

I. G. GARDNER, J. C. MERRYFIELD, A. W. THOMPSON

Trustees:

J. M. HAMILTON, Lake Co. I. C. STEELE, San Mateo Co
J. C. MERRYFIELD, Solano Co. A. B. NALLEY, Sonoma Co
G. W. COLBY, - Butte Co. O. S. ABBOTT, Santa Barbara Co
H. B. JOLLEY, - Merced Co. A. W. THOMPSON, Sonoma Co
A. WOLF, San Joaquin Co. E. W. STEELE, El Dorado Co
J. D. BLANCHARD, Pres't. W. H. BAXTER, Sec'y.

This association is organized for the purpose of affording the farmers of this State the means of safely insuring against loss by fire, at actual cost of insurance, without being connected with city risks.

DIVIDEND NOTICE.

The Farmers' and Mechanics' Bank of SAVINGS have declared a Dividend for the half year ending December 31, 1874, at the rate of ten per cent. per annum on term, eight per cent. per annum on class one ordinary, and six per cent. per annum on class two ordinary deposits, payable on and after January 15th, 1875. By order G. M. CONDER, Cashier.

S. F. MARKET REPORT.

At Wholesale when not Otherwise Indicated.

Weekly Market Review.

DOMESTIC PRODUCE.

SAN FRANCISCO, Feb. 25, 1875.

The feature of the market this week is the increased firmness of Wheat in this city, and its advance in New York and Liverpool. The New York quotations yesterday were \$1.25@1.30, and the Liverpool \$2.17@2.25 for Average, and \$2.25@2.39 for Club. That is, that an advance of 2c has been sustained in the Liverpool market since our last report. This is cheering as far as it goes, and we only wish it portended a permanent advance in the market. If we are to judge from present indications, however, it is not likely to do so. Every such advance, of course, brings up the confidence of the farmer, to be cast down again as quickly by the slightest decline; and this is because in regard to what governs the course of the market, in regard to what regulates supply and demand, the average agriculturist is entirely in the dark. This is the fault of governments and associations which neglect the very important duty of collecting reliable statistics on such matters. To judge of what his action ought to be the agriculturist should keep monthly posted as to stocks and consumption in all parts of the world, as to acreage, probable product, probable demand, and stock on hand. Then he could forecast with almost unerring certainty. This is one of the most important objects that should occupy the attention of the Grange. As they are at present, we need hardly say that in the majority of cases such statistics as those above referred to are mere guesses, more or less happy, but they are guesses after all. In California last year, while some authorities placed the wheat crop at 24,000,000 cents, others gave no more than 12,000,000, while the estimates of English statisticians were equally wild and divergent. The man who will take the initiative in this matter will deserve the thanks, not only of the farmer, but of the entire community of wheat growers and wheat eaters.

Barley—Receipts since our last, 10,641 cts. Total since Feb. 1st, 56,334 cts. The market continues to recede. Since our last it has declined 2½¢. Quotations now may be given as: Coast Feeds, \$1.37½@1.45; Bay Feeds, \$1.40@1.45. Barley in New York is quotable at \$1.45 per bushel, a decline of 5c since last week. Sales for the week of 400 kds of Bay Feeds at \$1.38½; 500 do, \$1.40, 500 do Browning, \$1.50; 350 do, \$1.55, and 1000 do Bay Feeds at \$1.40@1.50.

Beans—Receipts since our last, 1784 cts. Total since Feb. 1st, 3660 cts. There has been no change in the market since our last and no sales save jobbing ones.

Broomcorn—Receipts for the week of 31 bbls. Quotable as last reported, 8@10c for Choice and 5@7c for Common.

Corn—Receipts since our last, 4069 cts. Total since Feb. 1st, 6251 cts. Notwithstanding the large receipts the market continues firm for Choice White, but Yellow has declined. We quote Choice White, \$1.70@1.75 and Yellow at \$1.45@1.47½. Sales since our last of 400 kds of large Yellow at \$1.55@1.57½, 600 do at \$1.47½@1.50, 250 do small Yellow at \$1.57½ and 750 do Yellow at \$1.45@1.47½.

Cornmeal—Table remains without change, but feed has receded 50c, quotable at \$3.50@3.54.

Cotton—Receipts since our last, 27 bbls. Total since Feb. 1st, 55 bbls. Quotable at \$2.14@2.16. We have no sales to report.

Flour—Receipts since our last, 40,902 kds, including 19,784 qrs of Oregon per Hera, Menchikovoff and Ajax. Total since Feb. 1st, 130,725 qrs. Total since Jan. 1st, 300,493 qrs. All the mills have come down to \$5.12½ for extra jobbing. Export sales for the week by the city mills have been light. The Star Mills, Vallejo, sold 15,000 bbls Star Extra and 500 bbls Vallejo Superfine for export on private terms. Exports for the week, 10,666 bbls.

Fresh Meat—Pork has advanced on foot, being quotable at 6½¢@6½¢, and dressed at 8½¢@9½¢.

Fruits—Receipts since our last: 1097 bxs Oranges, 181 do Oranges and Lemons, 10 do Lemons, 359 do Apples, 331 kgs and 9 bxs of Oregon Dried Fruit, 44 kgs Oregon Dried Plums, and 8 hfbbls Oregon Dried Apples. There has been no particular change in price during the week. There is a plentiful supply of Apples and Oranges, and a moderate supply of other kinds.

Hay—Receipts since our last, 621 tons. Total since Feb. 1st, 2851 tons. Quotable at \$11@17. Sales of a cargo at \$16.

Hides—Receipts since our last, 1500. Total for February, 5590. Dry quotable at 18½¢@19½¢. Shipments of 4 carloads East, Wet Salted quotable at 8½¢@9c. Sales of 1500 at these rates.

Nuts—There is very little animation, and a light jobbing trade at previous rates is all we can record.

Oats—Receipts since our last, 13,562 cts, including 8753 cts Oregon and 1452 do of Washington Territory per Hera and W.H. Meyer. Total for February, 18,497 cts. There is very little change in the market since our last, which, notwithstanding the large receipts, is very fine. We quote California Common at \$1.60@1.75 do Choice, \$1.75@1.80; Oregon, \$1.75@1.85; do Fancy, \$2.00@2.10. Sales of 600 kds Fair at \$1.75@2.00; do do at \$1.77½; 600 do Oregon at \$1.80@1.82½.

Oatmeal—No change since our last. Quotable at 5½¢@6c.

Onions—Receipts since our last: 1228 sks. Total for February: 3694 sks. The market is better. Stock on hand being quotable at \$1.25@1.75, and Union City \$1.75@2.00. Sales of 180 sks of Union City Yellow at \$1.90@2.00, and 150 do Stockton at \$1.37½@1.50.

Pearl Barley—Quotable for shipping at 5½¢@6½¢.

Potatoes—Receipts since our last: 14,673 sks, including 20 sks of Oregon and 1480 do of Washington Territory. Total for February: 46,433 sks. The market is a little off; quotable at \$1.70@1.90. Sales of 200 kds Coffee Cove at \$1.80; 300 inferior at \$1.50, 100 do Pigeon Point at \$1.85, and 130 do Sweet at \$3.

Wheat—Receipts since our last, 142,101 cts. Total for February to date, 537,026 cts. Total since Jan. 1st, 1,379,267 cts. The Liverpool market has advanced during the week 2c on California Average, and is now quotable at \$2.17@2.25 for Average and \$2.25@2.39 for Club. The New York market to-day is quotable at \$1.25@1.30—an advance. The local market is firmer for Milling, being quotable at \$1.55@1.57½, while Shipping is quotable at \$1.50@1.52½, and Southern Coast at \$1.45@1.47½. The following table shows the price of California Average Feb. 23d and 24th, for the past three years:

Year.	Date.	Price.
1875.	Feb. 23.	\$2.17@2.25
1874.	Feb. 23.	3.08@3.12
1873.	Feb. 24.	2.80@2.91

This shows a decline of 89c as compared with the past year, and one of 69c as compared with 1873.

Sales for the week:
10,000 sks Good Shipping.....\$1.52½
10,000 sks Choice.....1.50@1.55
6,000 sks Choice.....

DOMESTIC PRODUCE.

WEDNESDAY M., Feb. 24, 1875.

BEANS.		SAC. RIVER.	
Bayo.	3 3/4	Salinas.	1 50 @ 1 75
Butter.	3 3/4	St Barbara.	1 75 @ 1 85
Cal.	3 3/4	Sweet, per cwt.	3 3/4 @ 3 5/4
Eastern.	3 3/4	Tomatoes.	1 50 @ 1 75
Small.	3 3/4	Tomatoes, per doz.	1 50 @ 1 75
BROOM CORN.		POULTRY.	
Per bu.	5 10	Broilers, small.	4 00 @ 5 00
COTTON.		do large.	5 00 @ 6 00
Cal. 1874.	14	Doves, per dozen.	6 00 @ 7 50
DAIRY PRODUCE.		Ducks, tame, doz.	6 00 @ 7 00
Cal. choice h.	20	Geese, per pair.	12 00 @ 15 00
Firkin.	20	Hare, per doz.	2 00 @ 3 50
Inferior.	20	Hens, per doz.	5 00 @ 7 50
Chesse, Cal.	20	Live Turkeys, hens	per lb. 15 @ 17
Eastern.	20	do do.	15 @ 17
EGGS.		do dressed.	16 @ 19
Cal. fresh.	30	Mallard Ducks.	3 00 @ 3 50
Ducks.	30	do small.	2 00 @ 2 50
Oregon.	30	Prairie Chickens.	2 50 @ 3 00
FEED.		Quail, per doz.	1 50 @ 2 00
Barley, per bu.	14 @ 15	Rabbits.	1 75 @ 2 00
Corn Meal.	33 00 @ 34 00	do tame doz.	1 00 @ 1 25
Hay.	9 00 @ 9 25	Roosters, young.	5 50 @ 6 00
Middling.	9 00 @ 9 25	Snake, Eng. doz.	2 50 @ 3 00
Oil cake meal.	30 00	do Heavy.	14 @ 15
Straw, bale.	75 @ 80	Wild Geese, gray.	5 00 @ 6 00
FLOUR.		do white.	1 50 @ 2 00
Extra.	4 75 @ 5 25	PROVISIONS.	
Superior.	4 00 @ 4 25	Cal. Bacon, Light	15 @ 15 1/2
FRESH MEAT.		do Medium.	14 @ 14 1/2
Beef 1st quality.	6 @ 8 1/2	Cal. Smoked Beef	9 @ 10
Second do.	5 @ 6	do Eastern do.	9 @ 10
Third do.	4 @ 5	do East'n Should's	9 @ 10
Lamb.	7 @ 8	do new hams.	16 @ 17
Mutton.	7 @ 8	do Cal.	14 @ 15
Pork, dressed.	8 1/2 @ 8 3/4	do Whittaker.	17 @ 17 1/2
do, dressed.	8 1/2 @ 8 3/4	do Duhamel, ch.	16 @ 17
Veal.	6 @ 8	do Armour.	16 @ 17
GRAIN, ETC.		do Boyd's.	16 @ 17
Barley, coast.	1 1/2 @ 1 50	do Stewart's.	13 1/2 @ 16
do do.	1 1/2 @ 1 50	SEEDS.	
Buckwheat.	3 00 @ 3 25	Alfalfa, Chile.	10 @ 14
Corn, White.	1 65 @ 1 70	do California.	16 @ 18
do, Yellow.	1 45 @ 1 50	Canary.	19 @ 15
Oats, choice.	1 70 @ 1 80	do do.	19 @ 15
do common.	1 40 @ 1 70	do White.	65 @ 75
Rye.	1 20 @ 1 25	Cotton.	6 @ 10
Wheat, coast.	1 40 @ 1 45	do Flaxseed.	8 @ 10
do shipping.	1 45 @ 1 50	Hemp.	8 @ 10
do milling.	1 50 @ 1 57 1/2	Italian Rye.	30 @ 40
HOPS.		Ky. Blue Grass.	50 @ 60
California.	2 1/2 @ 4 00	do 2d quality.	40 @ 50
East'n.	7 1/2 @ 8 50	do 3d quality.	30 @ 40
MISCELLANEOUS.		Mustard, white.	13 1/2 @ 23 1/2
Beeswax, per lb.	25 @ 27 1/2	do Brown.	2 1/2 @ 3 1/2
Honey in comb.	13 @ 25	Rape.	11 @ 12
do strained.	10 @ 12	Sweet V. Grass.	75 @ 100
Onions.	1 1/2 @ 1 50	Orchard do.	30 @ 35
Pulu.	1 1/2 @ 1 50	Red Top do.	25 @ 30
NUTS—JOBBER.		Hungary do.	50 @ 60
Almonds, hdbsh'd.	8 @ 10	Lawson do.	50 @ 60
do, soft.	20 @ 22 1/2	Mesquit do.	15 @ 20
Brazil do.	14 @ 15	Timothy.	8 @ 12
Cal. Walnuts.	14 @ 15	WOOL, ETC.	
C. Peanut per lb.	8 @ 9	FALL.	10 @ 12
Chile Walnuts.	9 @ 10	Decorative.	10 @ 12
Cocanuts, 1000.	50 @ 60	Fair grade.	14 @ 15
Filberts.	17 @ 18	Good to choice.	18 @ 20
Pecanuts.	17 @ 18	Heavy free.	10 @ 13
POTATOES.		Hides, dry.	15 @ 16 1/2
Bodega.	1 75 @ 1 80	do wet, said.	15 @ 16 1/2
Conf. Cove.	1 80 @ 1 90	do Towel.	6 @ 7
H. M. Bay.	1 80 @ 1 90	do Refined.	6 @ 7
Mission.	1 80 @ 1 90	FRUITS AND VEGETABLES.	
Pigeon Pt.	1 80 @ 1 90	FRUIT MARKET.	
WEDNESDAY M., Feb. 24, 1875.		Tahiti, Or. M.	— @ —
DRIED FRUIT.		Lorita do.	— @ —
do St. Peter.	— @ —	Cal. do.	15 @ 20
Apples, per bu.	5 @ 6 1/2	Limes, per bu.	15 @ 20
Peaches, per bu.	9 @ 10	Cal. Lemons, per M.	15 @ 20
Apricots, per bu.	12 1/2 @ 15	Australian do.	— @ —
Plums, per bu.	6 @ 8	do Sicily do.	11 @ 12
Pitted, do.	15 @ 16	Buonano, per bu.	2 50 @ 3 00
do Extra, do.	15 @ 16	Cocanuts, per bu.	50 @ 60
Raisins, do.	12 @ 15	Pineapples, doz.	7 00 @ 8 00
Black Figs, per bu.	5 @ 6	Apples, per box.	75 @ 100
White, do.	8 @ 12	Cherries.	— @ —
Prunes, do.	8 @ 12	Blackberries.	— @ —
do German.	14 @ 15	do wild.	— @ —
do Italian.	14 @ 15	Huckleberries.	— @ —
Zante Currants.	8 @ 9	Strawberries.	— @ —
Dates.	12 1/2 @ 15	Gooseberries.	— @ —
VEGETABLES.		Raspberries.	— @ —
Asparagus.	50 @ 75	Chrysanth.	— @ —
Beets.	20 @ 25	Carrots.	— @ —
Cabbages.	10 @ 15	do black.	— @ —
Carrots, per ton.	6 00 @ 10 00	Apricots.	— @ —
Cauliflower, doz.	25 @ 30	Plums.	— @ —
Celery, doz.	40 @ 50	Peanes, bakt.	— @ —
Garlic, doz.	11 @ 12	do ext. Mount.	— @ —
Green Peas, doz.	10 @ 15	do tam. Bing.	— @ —
Green Corn, doz.	— @ —	Pears, Bartlett, bkt.	1 00 @ 1 50
Squash, per ton.	— @ —	do Cooking.	1 00 @ 1 25
Marro'tich Squash.	25 @ 30	Grab Apples.	— @ —
Artichokes, doz.	75 @ 100	Nectarines.	— @ —
String Beans, per bu.	— @ —	Walnuts.	— @ —
Peas, per bu.	15 @ 20	Musk'g'g'.	— @ —
Parentis.	15 @ 20	Pomegranates.	— @ —
Shell Beans.	— @ —	do.	— @ —
Peppers, green, box.	— @ —	Grape, Musk'g'g'.	— @ —
Okra, green.	— @ —	do Malaga's.	— @ —
Cauliflowers.	— @ —	do Sweet'g'g'.	— @ —
Tomatoes, box.	— @ —	do Mission.	— @ —
Egg Plant, box.	— @ —	do Rose of Peru.	— @ —
Rhubarb.	— @ —	do Tokay.	— @ —
Lettuce, doz.	25 @ 30	do Morocco.	— @ —
Turnips, ton.	15 @ 20	FRUITS, ETC., PRESERVED BY THE ALDEN PROCESS.	
WEDNESDAY M., Feb. 24, 1875.		Apricots, pared, per bu.	35 @ 40
do unpared, do.	15 @ 20	do do, do.	15 @ 20
Peaches, do.	33 1/2 @ 35	do do, do.	35 @ 40
do pared, do.	33 1/2 @ 35	do do, do.	35 @ 40
Corn, per bu.	30 @ 35	do do, do.	30 @ 35
Bartlett Pears, pared, do.	30 @ 35	do do, do.	30 @ 35
Pears, pared, sliced, do.	30 @ 35	do do, do.	30 @ 35
Pears, pared, sliced, family use, extra.	35 @ 40	do do, do.	35 @ 40
Currants, stemmed, do.	35 @ 40	do do, do.	35 @ 40
Royal Ann Cherries, pitted, do.	75 @ 80	do do, do.	75 @ 80
Kentucky Cherries, pitted, do.	75 @ 80	do do, do.	75 @ 80
French Kiwi, per bu.	55 @ 60	do do, do.	55 @ 60
Apple, pared, per bu.	16 @ 20	do do, do.	16 @ 20
do do, do.	16 @ 20	do do, do.	16 @ 20
Apples, 10-b boxes fam.	— @ —	do do, do.	— @ —
LEATHER.		City Tanned Leather, per bu.	26 @ 29
Santa Cruz Leather, do.	26 @ 29	Country Leather, do.	24 @ 28
Stockton Leather, do.	25 @ 28	do do, do.	25 @ 28
Jodot, 8 Kil. per doz.	50 @ 54	do do, do.	50 @ 54
Jodot, 11 to 13 Kil. per doz.	80 @ 85	do do, do.	80 @ 85
Jodot, 14 to 19 Kil. per doz.	57 @ 60	do do, do.	57 @ 60
Jodot, second quality, 14 to 15 Kil.	57 @ 60	do do, do.	57 @ 60
Jornellian, 12 to 16 Kil.	57 @ 60	do do, do.	57 @ 60
Cornellian Female, 12 to 13 Kil.	57 @ 60	do do, do.	57 @ 60
Cornellian Female, 14 to 15 Kil.	57 @ 60	do do, do.	57 @ 60
Simon Ullmo Female, 12 to 13 Kil.	57 @ 60	do do, do.	57 @ 60
Simon Ullmo Female, 14 to 15 Kil.	57 @ 60	do do, do.	57 @ 60
Simon, 18 Kil. per doz.	61 @ 63	do do, do.	61 @ 63
Simon, 20 Kil. per doz.	61 @ 63	do do, do.	61 @ 63
Simon, 24 Kil. per doz.	61 @ 63	do do, do.	61 @ 63
Robert, 24 Kil. per doz.	61 @ 63	do do, do.	61 @ 63
French Kiwi, per bu.	55 @ 60	do do, do.	55 @ 60
California Kip, per doz.	40 @ 45	do do, do.	40 @ 45
French Sheep, all colors, per doz.	1 00 @ 1 25	do do, do.	1 00 @ 1 25
Eastern Calf for Backs, do.	1 00 @ 1 25	do do, do.	1 00 @ 1 25
Sheep Roans for Topping, all colors, per doz.	5 00 @ 5 25	do do, do.	5 00 @ 5 25
Sheep Roans for Lining, do.	5 00 @ 5 25	do do, do.	5 00 @ 5 25
California Russell Sheep Linings, do.	5 00 @ 5 25	do do, do.	5 00 @ 5 25
Best Jodot Calf Boot Legs, per pair.	4 00 @ 4 25	do do, do.	4 00 @ 4 25
Good French Calf Boot Legs, per pair.	4 00 @ 4 25	do do, do.	4 00 @ 4 25
French Calf Boot Legs, per pair.	4 00 @ 4 25	do do, do.	4 00 @ 4 25
Harnes Leather, do.	45 @ 50	do do, do.	45 @ 50
Fair Bridle Leather, do.	33 @ 37 1/2	do do, do.	33 @ 37 1/2
Skirting Leather, do.	30 @ 35	do do, do.	30 @ 35
Welt Leather, do.	17 @ 19	do do, do.	17 @ 19
Buff Leather, do.	17 @ 19	do do, do.	17 @ 19
Wax Side Leather, do.	17 @ 19	do do, do.	17 @ 19
Wax Leather, do.	17 @ 19	do do, do.	17 @ 19
Western Wax Leather, do.	17 @ 19	do do, do.	17 @ 19

METALS.

WEDNESDAY M., Feb. 24, 1875.

WEDNESDAY M., Feb. 24, 1875.			
American Pig Iron, per ton	—	@	46 00
Scotch Pig Iron, per ton	46 00	@	48 00
White Pig, per ton	—	@	46 00
Oregon Pig, per ton	—	@	46 00
Refined Bar, good assortment, ½ lb.	—	@	3½
Refined Bar, bad assortment, ½ lb.	—	@	4
Boiler, No. 1 to 4	—	@	5½
Plate, No. 5 to 9	—	@	5½
Sheet, No. 10 to 12	—	@	5½
Sheet, No. 14 to 20	—	@	5½
Sheet, No. 24 to 27	—	@	5½
Hot Rolled, per keg.	08	@	09
Nail Rod, per cwt.	7 50	@	8 00
Norway Iron	10	@	—
Roller Iron	9	@	—
Other Irons for Blacksmiths, Miners, etc.	6	@	—
COPPER.—	—	@	4½
Braziers'	31	@	32
Copper Tind.	45	@	—
O. Nielle Pat.	50	@	—
Sheathing, ½ lb.	—	@	24
Sheathing, Old Yellow	—	@	—
Sheathing, Old Yellow	—	@	12½
Composition Nail.	24	@	—
Composition Bolts.	24	@	—
TIN PLATES.—	—	@	—
Plate, Charcoal, IX ½ box	13 00	@	15 00
Plate, I Charcoal	13 00	@	15 00
Roofing Plates	12 50	@	15 00
Banca Tin, Slabs, ½ lb.	—	@	33½
STEELE.—English Cast, ½ lb.	20	@	25
Anderson & Woods' American Cast.	—	@	16½
Drill	—	@	16½
Flat Bar.	1	@	22
Flow Steel	9	@	—
ZINC.—	—	@	11
Zinc Sheet.	—	@	11½
NAILS.—Assorted sizes.	4 25	@	8 00
QUICKSILVER, per lb.	1 37½	@	1 35

Nurserymen.

Established 1853.

Stocks for Nurserymen.

Plum Seedlings, Mirobolan, the best French stock, does not sucker..... \$50 per 1000
 Apple Seedlings..... 10 per 1000
 Pear Seedlings..... 12 per 1000
 Cherry Seedlings, Mazzard..... 20 per 1000
 Cherry Seedlings, Mahaleb..... 15 per 100
 Walnuts, English, 4 to 6 feet..... 15 per 100
 Cork Elm, best Elm, 4 to 6 feet..... 15 per 100
 Blue Gum or Eucalyptus, in variety..... 5 to 10 per 100
 Magnolia Grandiflora.....
 Magnolia Acuminata.....
 Magnolia Tripetala.....
 Golden Arborvitae.....
 Crataegus Arborescens.....
 Swedish Juniper.....
 Irish Juniper.....
 Heath-leaved Arborvitae.....
 Heath, Mediterranean.....
 Laurustinus, 6 to 12 in.....
 Making the growth of Oranges and Lemons a specialty, I have imported from all sources the best known varieties, and now offer five thousand Grafted Trees properly worked and twice transplanted at \$18 per dozen. Grafted oranges by the 100 or 1,000 at prices on application. The amateur in want of large PALMS, large AURICARIAS, large CAMELIAS and large TREE FERNS, a good stock on hand; also the usual large stock of fruit and ornamental trees.

BERNARD S. FOX,

San Jose, Cal.

THOS. MEHERIN, Agent, 516 Battery Street, San Francisco.
 24v83m.

Fruit, Shade and Ornamental

EVERGREEN TREES

-AND-

Plants for Sale.

At the old stand, corner Oregon and Battery streets, directly opposite Post Office, San Francisco.

I NOW OFFER FOR SALE

The Largest and Best Collection of Fruit, Shade and Evergreen Trees and Plants ever offered in this market, and at Reduced Prices.

Persons laying out new grounds would do well to call and examine our stock before purchasing elsewhere.

ORDERS FROM THE COUNTRY

Promptly attended to and packed with great care. A large stock of Cypress, Pines and Blue Gums for sale very low. Send for Price Catalogue.

Agent for B. S. Fox's Nurseries, San Jose.
 Address

THOMAS MEHERIN,

P. O. Box, 722, 516 Battery St., S. F.

SHINN'S NURSERIES,

NILES' JUNCTION,

Alameda County, California.

The attention of persons intending to set out Trees is requested to the well grown and large variety offered for sale by the undersigned at the above Nurseries. An examination of our stock will satisfy any one of the quality, being all that can be asked, and when the low prices we have fixed are taken into consideration, we believe we are offering the very best inducements for buyers to deal with us. For full particulars we refer to our circular for the approaching season, which will be sent, as requested, on application to either of the undersigned.

SHINN & CO.,

Proprietors.

Address James Shinn, Niles, Alameda County, Cal., or, Dr. J. W. Clark, 418 California street. San Francisco, Cal.
 8v17-4mo.

F. LUDEMANN.

RUD. MICHELSEN.

PACIFIC NURSERY,

aker St., Between Lombard and Chestnut,
 San Francisco, Cal.

P. O. Box 475.

We offer this Season a Large and Complete Selection of Well Grown

EVERGREEN AND DECIDUOUS TREES AND SHRUBS, FLOWERING AND ORNAMENTAL PLANTS

At very reasonable Prices. Our Descriptive Catalogue of Evergreens and Deciduous Trees and Shrubs, and our Wholesale Trade List (For Dealers and Nurserymen) will be sent on application. All Orders promptly filled.

F. LUDEMANN & CO.

KING'S NURSERY,

Twenty-fifth St., bet. Telegraph & Broadway
 OAKLAND, CAL.

Fruit, Shade and Evergreen Trees, Shrubs, Roses, Etc. Persons laying out new grounds would do well to call and examine our stock before purchasing elsewhere. A large stock of EUCALYPTUS, including BLUE GUM Pines and CYPRESS from six inches to twelve feet high. Acacias in Variety; Young Stock for Nurserymen; Pines and Cypress; Three Thousand Magnolia Grandiflora from six inches to five feet high; Camelia Japonica; Gardenia Cape Jessamine; Araucarias in Variety, at Lowest Rates. Orders attended to.
 Address, M. KING, Nurseryman,
 3v9-3m Oakland, Cal.

John Saul's Catalogue of New, Rare and Beautiful Plants for spring of 1875 will be ready in February, with colored plate. Free to all my customers. To others, 25 cents. A plain copy to all applicants free. Washington, D. C.

Metropolitan Nurseries,

Lombard Street,

Between Polk & Larkin Streets, at the Terminus of the Clay Street Hill Railroad.

MILLER & SIEVERS, PROPRIETORS.

FLORAL AND SEED DEPOT,

NO. 27 POST STREET, San Francisco.

Our stock of plants, comprising a most selected collection of Flowering and Ornamental Plants for the garden and the conservatory.

ROSES, over 200 varieties.

PINKS, 100 varieties.

DAHLIAS, 60 varieties.

PALMS, 40 varieties.

FERNS, 100 varieties.

ORANGES & LEMONS,

30 varieties

Our assortment of Flowering Bulbs is complete. Always on hand a choice and fresh lot of

TREE, SHRUB and FLOWER SEEDS.

OUT FLOWERS, BOUQUETS, FUNERAL WREATHS and FLORAL DECORATIONS furnished at short notice and on reasonable terms.

Orders from any part of the country promptly filled.

Eucalyptus globules, (Blue Gum) seed, fresh invoice \$15.00 per pound.

New catalogue now ready, gratis on application.



Superior Fruit Trees

TRUE TO NAME.

Shade and Ornamental Trees,
 Cypress Seedlings,
 Gum and Pine Trees,

ALSO, A GENERAL VARIETY OF

NURSERY STOCK,

At the Lowest Rates.

Trees and Plants securely packed to send any Distance.

T. CORLEY, Nurseryman,

No. 315 Washington St., SAN FRANCISCO.
 5v17

BELLEVUE NURSERY,

Telegraph Avenue, Oakland.

WE OFFER FOR SALE THE PRESENT SEASON A LARGE ASSORTMENT OF

Ornamental Trees and Shrubs

OF BEST TRIED VARIETIES.

Many fine specimens of good size can be seen on the grounds to select from. Choice collections (true to name) put up for those starting a garden. Street cars pass every fifteen minutes.

3v9-1f

S. NOLAN.

Thos. A. Garey's

Semi-Tropical Nurseries.

LOS ANGELOS, CAL.

Forty varieties of the Citrus family of semi-tropical trees, including many rare and beautiful, as well as useful and profitable kinds.

Grafted and Budded Orange Trees a specialty. Trees packed to arrive in good order. Priced Catalogue sent free. Address me P. O. Box, 528, Los Angeles city, Cal.

23v8-6m

THOS. A. GAREY.

ALMOND TREES.

35,000 Brier's Languedoc Almond Trees, one and two years old from the bud. This is the only Almond planted on a large scale, being hardy, late blooming, beautiful tree. It bears the second year from planting. The Almond is large and sweet with soft shell. Also, two year old Peach and English Walnut trees. Liberal terms to the trade and persons planting large orchards. Send orders to

W. W. BRIER,

21v8-3m Centerville, Alameda Co., Cal.

PEACHES, APRICOTS AND PLUMS are specialties at the Vacaville Nursery, Solano Co., Cal. Alexander's Early, Thurber and Peento in bud, 50 cents each. Beatrice, Louise, Rivers' Early, Lord Palmerston Lady Palmerston, Prince of Wales, Princess of Wales, Picquet's Late, Lady Parham, Italian Dwarf, Golden Dwarf, Bloodleaved and many other varieties of new Peaches in bud, at 25 cents each; Trees of Alexander's Early, \$1 each. Beatrice, Plowden, Freemason and a general assortment of the leading varieties, 25 cents each; Apricots, Plums, Apples, Pears, Cherries, Almonds, Figs, Olives, Pomegranates and including most of the leading varieties of fruit for sale at low prices. D. E. Hough, Vacaville, Solano Co., Cal.

HOP ROOTS FOR SALE.

I have a lot of choice HOP ROOTS, and also healthy BLACKBERRY SETS for sale at LOWEST RATES. Orders may be addressed through DEWEY & Co., of the Rural Press, San Francisco; ROBT. WILLIAMSON, Capital Nurseries, Sacramento; or to me,

OALVERT T. BIRD,
 24v8-3m San Jose, Cal.

1852.

ESTABLISHED IN 1852.

THE STOCKTON NURSERY

I have for sale for the ensuing season a Large and Well Grown Stock of All Varieties of

FRUIT TREES,

SHADE,

ORNAMENTAL

and

EVERGREEN TREES.

GREENHOUSE PLANTS, AUSTRALIAN GUMS, SHRUBS, ROSES, BULBS, PALMS.

Send for Catalogue.

W. B. WEST, Stockton, Cal.

FOR FRUIT, ORNAMENTAL TREES

FOR PLEASURE, PROFIT,

Pears, Apples, Cherries, Peaches

Plums, Quinces.

Small Fruits.—Grapes, Currants, Raspberries, Blackberries, Strawberries, Gooseberries.
 Ornamental.—Weeping and Standard Trees.
 Evergreens.—Common and New and Rare.
 Shrubs.—Variegated-leaved and Flowing.
 Roses.—Moss, Tea, Climbing and Perpetual.
 Clematis Jackmanni is perpetual, hardy, lives easy, grows fast, and flowers the first year.
 12 sorts Perpetual White Clematis and fifty new varieties of many shades of colors. Strong plants safely sent by mail.
 Good Plants sent by mail, post-paid, as follows:
 6 Choice Roses for...\$1 00 13 Choice Roses for...\$2 00
 8 Variegated-leaved and Flowering Shrubs for...\$1 00
 15 Variegated-leaved and Flowering Shrubs for...\$2 00
 500 Acres of Nursery. } T. C. MAXWELL & BRO'S.
 Catalogues Free. Geneva, N. Y.

KELSEY'S NURSERIES,

OAKLAND, - - - - - OAL.

Established 1852.

More largely stocked this year than any previous year. Embracing all and every kind of

FRUIT, DECIDUOUS, ORNAMENTAL AND

FLOWERING TREES AND

PLANTS, ETC.

Send for Catalogue and Price List free on application.

W. F. KELSEY, Prop.

J. ROCK'S NURSERIES,

San Jose, California.

We offer this season a Complete Stock of

FRUIT AND ORNAMENTAL TREES,

SMALL FRUITS AND PLANTS.

The attention of Dealers, Nurserymen and Planters is invited to our Large Stock of Fruit Trees.

All Leading Market Varieties are grown in large quantities. To all those purchasing largely we will make a Liberal Discount.
 Catalogues FREE on application.

23-v8-1f

JOHN ROCK, San Jose, Cal

PEPPER'S NURSERIES.

(Established in 1858.) PETALUMA, CAL.

Green Houses and Tree Depot corner Washington and Liberty streets.

4 Green Houses. 3,000 feet of Glass. Fruit Trees a Specialty.

We offer for sale at lowest market rates a general assortment of Fruit and Shade trees, small Fruits, Vines etc. Evergreen trees and Shrubs in great variety. Green House, Conservatory and Bedding Plants, Roses, etc.
 We are now ready, Nov. 1st, to fill orders for trees and plants. Catalogue and price list furnished on application.

Address, W. H. & G. B. PEPPER,

19v8-1f Petaluma, Sonoma Co., Cal.



BAY NURSERIES

and Seed Store.

Established 1852.

P. O. Box 331.

OAKLAND, CAL.

An immense collection of Evergreen Trees, Shrubs and Flowering Plants, wholesale and retail. I invite inspection. Catalogues on application.

JAMES HUTCHISON, Prop.

BLOOMINGTON NURSERY, Bloomington, Ill.—F. KERNIX. Spring lists free, or this set of four catalogues post free for twenty cents.

SUPERIOR FRUIT TREES

TRUE TO NAME.

A fine collection of Evergreen and Deciduous Trees. Australian Gum Trees in variety, by the hundred or thousand. Monterey Cypress in quantities and sizes to suit all. Orange and Lemon Trees at reduced prices. A general variety of Nursery stock.
 Also, Rhubarb and Asparagus roots.

T. CORLEY,

18v29-1f 315 Washington Street, S. F.

Union Box Factory,

GEO. W. SWAN & CO.,

115 and 116 Spear St., bet. Mission & Howard
 SAN FRANCISCO.

Apple, Pear, Plum, Peach, Cherry, Grape, Orange, Limes and Wine Cases.

Tomato, Potato, Fig and Raisin Boxes.

Strawberry, Raspberry and Blackberry Chests and Drawers, and Baskets for all kinds of Berries.

Peach and Picking Baskets, Butter Chests and Boxes, Cheese Boxes, Squares and Round Egg Carriers.

Drums for Figs, Cherries, Raisins, and for other Dried Fruits.

Free Packages—Boxes not to be returned—a good article, costing less than Sawed Boxes.

Lard Caddies, Coffee and Fruit Caddies.

Turkey and Chicken Coops, Bee-Hives, Etc.

Packing Boxes for Dry-Goods, Cigars, Candies, Canned Fruits, Honey, Macaroni, Crackers, Sugar, Soap, Boots, Etc.

In fact, every style of Boxes manufactured in the Union, and turned out in the Best Style at Favorable Prices. Orders from this country well attended to

POISON! POISON!

WAKELEE'S PATENTED

Granulated Squirrel Exterminator.

A NEW AND MOST DESTRUCTIVE POISON FOR THE WORST PEST OF CALIFORNIA.

For years the farmers of the Pacific Coast have been spending money in experimenting to find a safe, cheap and efficient way of ridding their grain fields of their worst enemy, THE SQUIRREL, which destroy Millions of Dollars' worth of grain every year; and unless a strong and combined effort is made to kill them off, they will become more numerous every year.

Wakelee's Granulated Squirrel Exterminator

Is just the thing the farmers of California have been looking for. It is SURE DEATH. One or two grains of it will kill a Squirrel so quick that if it is five feet from his hole it dies before it gets there. The Poison is put up dry and in granular form, and easily handled; in one pound tins at \$1 per pound. It goes a great way, as 10 to 15 grains of it are sufficient to place at each hole. Also successfully used for killing Gophers and Rats. It has been thoroughly tested in different parts of the country, and gave universal satisfaction. It is kept and sold by druggists and dealers generally through the country. The following are some of my testimonials, viz:

SANTA CLARA, April 20th, 1874.
 H. P. WAKELEE, Esq.—Your Squirrel Exterminator was used according to your directions, on my Quito Farm with excellent success, and in my estimation is just the thing the farmers want to kill their Squirrels.
 J. R. ABUELLO.

SAN LEANDRO, Cal., April 3d, 1874.
 H. P. WAKELEE, Esq.—I have given your Squirrel Exterminator a fair trial and find it to be an economical and very destructive preparation, and I can safely recommend it to our farmers. Yours,
 J. M. ESTUDILLO.

DOUGHERTY STATION, Alameda Co., Cal.
 Mr. H. P. WAKELEE, San Francisco: I have used your Squirrel Poison and found it to be just what you claim for it. It is sure death. Yours,
 O. M. DOUGHERTY.

H. P. WAKELEE, Druggist,
 Cor. Montgomery and Bush streets, S. F.

THE ALDEN

Fruit Preserving Company

OF CALIFORNIA.

Is now prepared to sell rights and furnish the necessary machinery for using the "ALDEN PROCESS," acknowledged to be the best method known for preserving Fruits, Vegetables, Meats, etc.

For full particulars call at the company's

Office, 426 Montgomery Street, S. F.

G. W. DEITZLER, President.
 W. M. WHEAT, Vice-President.
 FRANK PYLE, Sec'y and Sup't.
 BANK OF CALIFORNIA, Treasurer.

11v7-4m

H. K. CUMMINGS, 1858. H. E. BALSTON, 1873.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission House,
 ESTABLISHED 1858.

No. 424 Battery street, southeast corner of Washington
 San Francisco.

Our business being exclusively Commission, we have no interests that will conflict with those of the producer.
 6-3m

ALEX. BUSWELL,

BOOK BINDER, PAPER RULER

AND BLANK BOOK MANUFACTURER.

521 Clay Street, S. F.

Blank Books Ruled, Printed and Bound to Order

Seedsman.

1875. Established 1857. 1875.

Capital Nursery and Seed House

W. R. STRONG and ROBERT WILLIAMSON, Proprietors' having united their interests in the Seed and Tree business, offer to the public the largest and finest growth of both Seeds and Trees ever offered to the California public, of their own production, and also from the largest and most reliable houses of the Eastern States and Europe, all of which we offer as low as Eastern Dealers.

TREES. TREES. TREES.

Fruit, Shade, Ornamental, Evergreen, etc., raised in our Nurseries of the very best varieties. Dealers and Growers furnished at very lowest rates. Among our numerous varieties we call especial attention to BRIGGS' RED MAY PEACH, the earliest known, large, handsome of excellent flavor and good shipper.

SEEDS. SEEDS. SEEDS.

Vegetable, Flower, Field and Tree Seeds, and Flowering Bulbs and Plants.

100,000 pounds Finest Quality California ALFALFA, RED and WHITE CLOVER, KENTUCKY BLUE GRASS, RYE GRASS, ORCHARD GRASS, VERNAL GRASS, MESQUIT GRASS, TIMOTHY, RED-TOP GRASS, and every other Grass adapted to the Pacific States and Territories.

All the finer qualities of our Seeds will be forwarded by mail (post-paid) to customers at Catalogue rates, on receipt of money, which can be sent by postal orders or registered letters, or express, at our risk.

CATALOGUES AND PRICE LISTS on application, and forwarded by mail.

WAREHOUSE, 8 and 10 J street. NURSERIES, U street, SACRAMENTO CITY. TREE YARD, I street, next to Library Building.

W. R. STRONG & CO.

SEEDS. SEEDS.

Encourage home industry and make a saving of at least 30 per cent.

If you want Seed that you can depend upon as to variety and freshness, why not send your orders direct to the grower and make a saving of at least thirty per cent. on the prices of other seedsmen. Send for catalogue, free, post-paid, and compare with prices of other dealers. Just received,

Grasses, Clover, Alfalfa and Field Seeds, Fruit and Evergreen Trees, Shrubs, Flowering Shrubs, and Green-house Plants. Cabbage, Onion and Cauliflower Plants.

Large assortment of Bulbs from Holland. Address all orders or letters of inquiry, to

SEVIN VINCENT,

607 Sansome street, San Francisco, Cal

22v8-3m



My annual catalogue of Vegetable and Flower Seed for 1875, will be ready by Jan. 1st for all who apply. Customers of last season need not write for it. In it will be found several valuable varieties of new vegetables introduced for the first time this season, having made new vegetables a specialty for many years. Growing over a hundred and fifty varieties on my several farms, I would particularly invite the patronage of market gardeners and all others who are especially desirous to have their seed pure and fresh, and of the very best strain. All seed sent out from my establishment are covered by three warrants as given in my catalogue.

JAMES J. H. GREGORY, Marblehead, Mass



Spooner's Prize Flower Seeds

Spooner's BOSTON MARKET

VEGETABLE SEEDS.

Descriptive Priced, Catalogue, with over 150 illustrations, mailed free to applicant.

W. H. SPOONER, Boston, Ma

Fresh Osage Orange Seed

At One Dollar per pound, will be forwarded by mail in one pound packages on receipt of the price. Address,

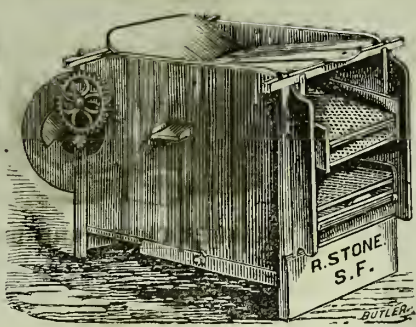
DR. STRENTZEL,

Martinez, Contra Costa Co., Cal.

Brittan, Holbrook & Co., Importers of Stoves and Metals, Tinners' Goods, Tools and Machines, 111 and 113 California, 17 and 19 Davis streets, San Francisco, and 178 J street, Sacramento

Agricultural Articles.

THE PATENT Novelty Mill and Grain Separator



Is one of the greatest improvements of the age for cleaning and separating grain, while it combines all the essential qualities of a first-class Fanning Mill. It also far exceeds anything that has been invented for the separation of grain. It has been thoroughly tested on all the different kinds of mixed grain. It takes out Mustard, Grass Seeds, Barley and Oats, and makes two distinct qualities of Wheat if desired.

For further information, apply to

R. STONE,

10v8-cow-3m

422 Battery street, S. F.

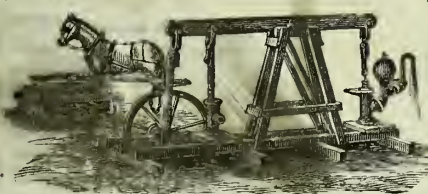
VINE AND FRUIT GROWERS,

TO RAISE LARGE CROPS

YOU MUST IRRIGATE.

To irrigate successfully, you must have the power that does not give out when the wind fails.

Laufkotter Bros. & Churchman's Horse-Power,



(PATENTED FEBRUARY 13TH, 1872.) Never fails to supply more water than four or five Windmills, even supposing you had all the wind you want. It is also suitable for running light machinery, such as Barley Cracks, Corn Shellers, Fanning Mills, Grain Separators, or, for Sawing Wood. They are never failing, cannot get out of order, easily worked, substantial, and always give satisfaction wherever they have been used. One horse can easily work two 6-inch pumps, with a continuous flow of water. Force Pumps, from 3,000 to 10,000 gallons per hour. WINDMILLS of all kinds manufactured to order. Wells Bored, Windmills and Horse-Powers set in any part of the State, and repairing of all kinds done. Manufactured and for sale by

LAUFKOTTER BROS.,

v7-2m-3m

Cor. J and 10th Sts., Sacramento.

O. OREGO.

S. O. BOWLEY.

CREGO & BOWLEY,

Importers and Manufacturers

-OF-

CARRIAGES and WAGONS,

No. 9 Merchant's Exchange,

CALIFORNIA STREET.....SAN FRANCISCO

Keep constantly on hand top and open Buggies, top and open Rockaways, Jump-seat Buggies, Track and Road Sulkies, Skeleton Wagons, Basket Phaetons of the very latest styles and finest workmanship. We would call particular attention to our fine stock of Light Road and Trotting Wagons, made to order by the following celebrated makers:

Charles S. Coffey, Camden, New Jersey; Helfield & Jackson, Rabway, New Jersey; Gregg & Bow, Wilmington, Delaware; And the first-class makers, which we are prepared to sell on the most reasonable terms.

Also, a large assortment of single and double Harness, of the most celebrated makers: O. Graham, New York; J. R. Hill, Concord; Pittkin & Thomas, Philadelphia.

Also, a full assortment of Dress and Light Blankets, Fur and Lap Robes, Whips, Halters, Surcingle, etc., at wholesale and retail.

CREGO & BOWLEY,

24v5-3m

No. 9 Merchants' Exchange, California street, San Francisco.

MATTESON & WILLIAMSON'S

AMERICAN CHIEF



GANG PLOW.

Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m

MATTESON & WILLIAMSON,

Stockton, Cal.

Allen's Planet Jr. Silver Medal

HAND DRILLS AND WHEEL HOES.

They "run like a charm," and hoe better, easier, and six times faster than the hand hoe. S. L. ALLEN & CO., Mrs. 119 S. 4th St., Phila., Pa. Circulars free.

A LIVE AGENT WANTED in every town.



CHAS. P. HOAG,

Nos. 18 & 20 Fremont Street.

Near Market, San Francisco.

THE TREADWELL SULKY



GANG PLOW.

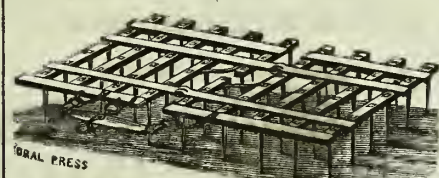
Improved for 1874, with BLACK HAWK Plow Bottoms, is the best GANG PLOW in the world. It is Simple, Strong and Durable, and does its work effectually. Has high wheels, running both on unplowed land; iron axle, wrought iron beams, and is built nearly all of iron and steel. No farmer should neglect to see it before buying. Send for descriptive circular and price. We have also the "VICTOR GANG," with hard wood beams and heavy cast iron standards; price, \$75. Also the "GOLDEN STATE GANG," with all iron beams; price \$75. "PFEL'S GANG," improved; price \$60; old style, \$25. The largest and best stock of Plows, Harrows, Cultivators, Grain Drills, Seed Sowers, Farm Wagons, etc., in the country.

TREADWELL & CO.,

18v8-tf

San Francisco

Donohue's Patent Harrow.



Patented October 13, 1874.

This Harrow, as may be seen in the cut, is constructed so that by its natural hanging and draft, without extra weights, the outer edges will keep down to their work, and preserve, as nearly as possible, a uniform level and penetration of teeth. To illustrate the engraving, if a line should be drawn through the two hinges it would cut the Harrow into two trapezoidal figures, thus causing the weight of the corners or acute angles to be nearly at right angles to the breaking line or joints of the two hinges, so that their superior leverage, owing to their greater distance from the hinges, will cause them to keep closely down to the ground when the harrow is working.

Orders received from all parts of the country, and a thoroughly durable implement furnished at reasonable rates, by the inventor, who is a practical worker.

F. DONOHUE,

Mayfield, Santa Clara County, Cal.

Farmers and Threshers

WISHING TO HAVE

Straw Burning Engines

For next season must engage them soon, as most of those now building are already sold. Threshing Engines for Repairs should be sent in now. A number of Second-hand Engines—taken in exchange for "Straw Burners"—for sale cheap. For particulars and prices, address:

H. W. RICE,

Haywood, Alameda County.

THE PUMPS SLUTHOUR PUMPS

Are sold 50 per cent. under any other in the market, considering the amount of water obtained for the power applied. They have now been fully tested for IRRIGATION, and entire satisfaction is guaranteed. Call and see them, or send for Circulars.

J. M. KEELER & CO., Agents,

306 California Street, San Francisco.

Notice—To Tule Land Owners.

I am manufacturing a Gang Plow specially adapted to ploughing Tule Lands. Address

Vallejo Foundry, J. L. Heald, Prop.,

18v29-3m

VALLEJO, CAL

SANTA BARBARA COLLEGE,

SANTA BARBARA, CAL.

A Boarding School for Boys and Girls, offering all the advantages of a thorough modern education. French, German, Spanish, Latin, Greek, Drawing, the Natural Sciences, Gymnastics and Dancing taught without extra charge. Vocal and Instrumental Music receive particular attention. Pupils furnish only a pair of heavy blankets. Next term opens January 6th 1874.

Write for Catalogue to

ELWOOD COOPER,

President Board of Directors.

Live Stock Notices.



We respectfully invite the attention of wool growers to our fine stock of Cotswold Sheep and Angora Goats. We have 200 head of Pure Bred Angoras to select from; we have some of the finest Goats in America; we guarantee everything we sell to be as represented; our prices are as low as any in America for the same grade of stock. Call and see, or address,

LANDRUM & RODGERS,

13v7-cow-tf

Watsonville, Cal.

REEDVILLE HERD.

PROPRIETOR,

S. G. REED. - - Portland, Oregon.

I have for sale, Shortborns of the most approved and fashionable families; among them are a few one year old Bulls of great merit, the produce of Cows imported direct from England, and sired by the renowned Mantallini bull, GOVERNOR GENERAL, 10,156, A. H. B., Vol. X, p 175. Also on hand,

AYRSHIRE CATTLE,

COTSWOLD AND

LEICESTER SHEEP,

AND BERKSHIRE PIGS,

of the highest standard. For particulars apply to

S. G. REED, Portland, Oregon,

Or WM. WATSON, Hillsboro, Oregon.

1v9-9w-tf.

GABIAN HERD

SPANISH MERINO SHEEP.

I have just purchased of Mr. George Hammond, of Vermont, three car-loads of Spanish Merino Sheep, (335 head, Ewes and Bucks) which, with others that I purchased last Fall, (also direct from Vermont) makes my band of Thoroughbred Spanish Merinos about 650 head.

I am prepared to sell both Bucks and Ewes, of Pure Blooded Spanish Merinos—as good as can be had in the World—so says Mr. Hammond. Parties interested will please give me a call. I am ten miles from Salinas City, Gabilan P. O., Monterey county.

J. D. CARR.

N. B.—I have also Good Graded Bucks for sale, and can dispose of some Good Graded Ewes. J. D. C.

12 Short-Horn Bulls,



fat and sleek, thoroughbred, just from Kentucky, at SAXE'S Stables, 35 Ritob Street, between Folsom and Harrison, two blocks from Grand Hotel. Inquire at SAXE'S Stables, or Room 32 Russ House. 3v9-3m

JACKS FOR SALE.

Two fine Jacks, one four and the other five years old, large and likely sired by old Samson, and of the best Kentucky Jinnets; the best stock of the kind in the State. Address B. C. EPPERSEN, 2y9-2m Bear Valley, Colusa County, Cal.

THE CLEETON COOP COMPANY,

Of New Haven, Conn.,

Are now prepared to furnish societies and individuals with

Standard Exhibition Coops

AT REASONABLE RATES.

Correspondence Solicited.

CO-OPERATIVE MARBLE WORKS.

JOHN DANIEL & CO.,

Manufacturers of and Dealers in

Monuments, Headstones, Tombs,

MANTEL PIECES, ETC.,

421 Pine street, between Montgomery and

Kearny, SAN FRANCISCO.

21v2-1v

Davis & Sutton, Commission Merchants,

For California Fruits; also for the sale of Butter, Eggs, Cheese, Hops, Green and Dried Fruits, etc., 75 Warren street, New York. Refer to Anthony Halsey, Cashier, Tradesman's National Bank, N. Y.; Ellwanger & Barry, Rochester, N. Y.; O. W. Reed, Sacramento, Cal.; A. Lusk & Co., Pacific Fruit Market, San Francisco, Cal.

Geo. W. Chapin, Real Estate Agent, 434 Montgomery St., San Francisco, buys and sells Ranches in all parts of the State. City Real Estate exchanged for Country Property. MONEY LOANED. Post Office Box 1129

1874. GUIDE AND CATALOGUE 1875.
FREE.

To persons contemplating purchasing I will send my Illustrated, Descriptive Catalogue and Guide to the VEGETABLE and FLOWER GARDEN WITHOUT CHARGE. It contains the most extensive and valuable list of



Flowering Bulbs, Roots and Plants, Semi-Tropical Trees, Ornamental Shrubs, Fruit and Shade Trees, etc., ever offered in this market. It tells how to successfully grow the Australian Blue Gum, the Monterey Cypress, Pine, etc., and the proper method of Cultivating Tobacco on this Coast.

My stock of Seeds is in part my own raising and in part direct importations from the best European and Eastern growers, and is unsurpassed in all respects by that offered by any other establishment. 100,000 Australian Blue Gums and Monterey Cypress in boxes at from \$30 to \$50 per 1,000, raised at my own Nursery at San Rafael.

R. J. TRUMBULL,

Grower, Importer, Wholesale and Retail Dealer in Seeds, Shrubs, Trees, etc.

20v8-6m-16p

427 Sansons strset, S. F.

Improve Your Poultry,

IT COSTS NO MORE TO KEEP GOOD FOWLS THAN POOR ONES!

OAKLAND POULTRY YARDS,

Cor. 16th and Castro streets, Oakland, Cal.



WHITE LEGHORNS.

Called THE POOR MAN'S FOWL. Eggs, \$6 per doz; Fowls, \$30 to \$35 per trio; Single Cocks, \$10. A new importation of J. Boardman Smith & Pitkin's celebrated strains just received. Stock guaranteed perfect in markings—white ear lobes, etc. No inferior stock sold at the Oakland Poultry Yards for any money.

For further information send stamp for illustrated Circular, containing a full description of all the best known and most profitable fowls in the country, to

GEO. B. BAYLEY,

Importer and Breeder of Blooded Fowls. Box 659, San Francisco. Purity of all Stock and Eggs sold absolutely guaranteed.

SEEDS.

PLANTS.

OF EVERY VARIETY.

Fresh and reliable, such as experience and care only can select.

GRASS AND CLOVER SEEDS, KENTUCKY BLUE GRASS, HUNGARIAN, ORCHARD, ITALIAN RYE, RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL, CHOICE CALIFORNIA ALFALFA, WHITE CLOVER, RED CLOVER, Etc.

Also, RAMIE, JUTE AND TOBACCO SEEDS; together with a fine and complete collection of TREE SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGANTEA, PINUS INSIGNIS, Etc.

For Sale, wholesale or retail, by

B. F. WELLINGTON,

(Successor to E. E. Moore). 425 Washington St., San Francisco. 23v7-1y

Bronze Turkeys

12 Gobblers from 8 to 20 months old, 22 to 40 lbs each, for sale now, Hens 14 to 18 lbs.



Emden Geese

40 to 50 pounds per pair at maturity.

BLACK CAYUGA DUCKS,

Games, Brahmas, Leghorns, Houdans, Bantams, etc.

Eggs, fresh, pure, true to name; well-packed so as to hatch after arrival.

For Illustrated Circular and Price-List, address

M. EYRE, Napa, Cal.

FERRETS. RABBITS. PIGEONS.

Please state where you saw this advertisement.

HEALD'S BUSINESS COLLEGE,

No. 24 Post Street, San Francisco.

The largest and best Business College in America. Its teachers are competent and experienced. Its pupils are from the best class of young men in the State. It is under the very best discipline. Its scholarships are good in the Twenty-Six Bryant & Stratton Colleges. It employs four of the best penmen in the State. It has the largest rooms, the largest attendance, and the most complete system of business training of any commercial school in the country.

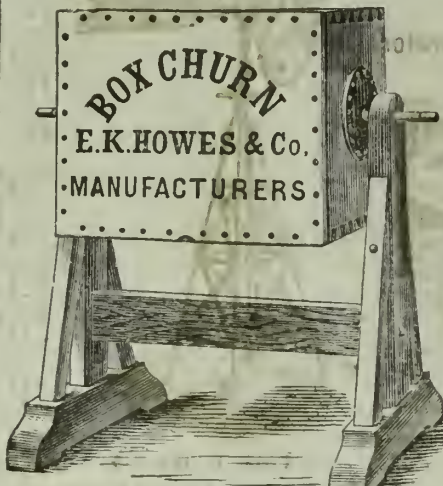
For information, call at the office, 24 Post street, or address, for circulars,

E. P. HEALD,

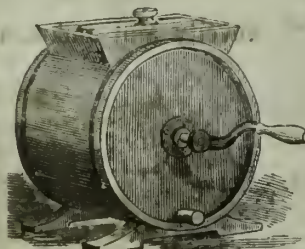
President Business College, San Francisco.

E. K. HOWES & CO.,

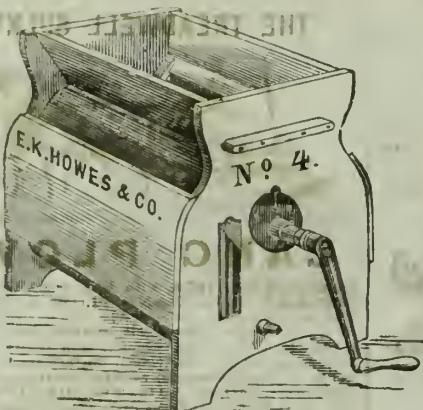
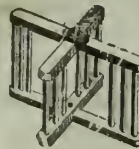
NOS. 118, 120 and 122 FRONT ST., SAN FRANCISCO.



BOX CHURN.



CYLINDER CHURN AND DASHER.



THERMOMETER CHURN.



BLANCHARD CHURN.

SOLE MANUFACTURERS ON THIS COAST OF

All Descriptions of Churns, Butter Workers & Moulds, Butter Tubs, (35, 50 & 60 Pounds), Butter Kegs—Plain and Gal Hoops—Wholesale & Retail.

Send for Price List and Illustrated Catalogue. Single Churns sent by Express, C. O. D., if desired. 3v3-cow-3m

GREAT CLOSING OUT SALE
OF THE
GLEN FLORA HERD
OF
SHORT HORN CATTLE

THE SUBSCRIBER announces that on

WEDNESDAY, APRIL 7, 1875,

the Entire Glen Flora Herd of Short-horns will be sold at PUBLIC AUCTION, at GLEN FLORA, near Waukegan, Illa.

The Herd numbers over One Hundred Head, and is made up largely of Bates blood, embracing representatives of such popular families as the Gwynne, Prince, Perle, Louan, Mazurka, Bright Eyes, Victoria, Bloom, Butterfly, Frantic, Constance, Bellflower, Yarrow, etc.

Among the bulls to be sold, are the 4th Earl of Oxford, and Baron Bates 3d, both substantially of pure Bates blood, and impressive and excellent sires.

TERMS—A credit of Six Months will be given on satisfactory notes, drawing interest at Six per cent. from date, or Five per cent. discount for cash in hand. Catalogues, giving pedigrees and full particulars, furnished on application. Address

C. O. PARKS,

Waukegan, Illa.

Messrs. ELLIOTT & KENT, of Des Moines, Iowa, will hold a sale of Short-horns at Dexter Park, Chicago, on Thursday, April 8th.

Messrs. J. H. KRISINGER & Co., of Clarksville, Mo., will hold a sale of Short-horns at Dexter Park, Chicago, on Friday, April 9th.

J. Y. WILSON. WM. FAULL. W. L. MERRY

WILSON, MERRY & CO.,

Provision Packers

And Dealers in

SALTED AND SMOKED MEATS,
Lard, Etc.

PROP'S BLACK POINT PACKING HOUSE.

We respectfully call the attention of Farmers and Stock Raisers to the fact that we are always prepared to purchase hogs, cattle and sheep at full market prices, for Cash, and shall be glad to answer promptly any inquiries addressed to us on the condition of the Market.

Office No. 223 Sacramento St., Near Front, San Francisco.

NO THORNS TO SCRATCH.

Hoosac Thornless Blackberry.

Quality and Productiveness unequalled. Hardy. Never has winter killed. One plant by mail 50 cts.; six plants, \$2.25; 12 plants \$4.00. Full history, plate and testimonials, free to all. Address FRANK FORD, Ravenna, O. Discount to Grocers and dealers on large orders.

NEW CROP OF

BLUE GUM SEED.

GRASS AND CLOVER SEEDS.

FLOWER AND VEGETABLE SEEDS.

TREE AND FRUIT SEEDS.

OF EVERY DESIRABLE VARIETY AND OF THE BEST QUALITY; OFFERED AT WHOLE-SALE OR RETAIL, BY

GEO. F. SILVESTER,
SEEDSMAN,

No. 317 Washington Street,

24v8-tf SAN FRANCISCO

M. FALLON,

Cor. Seventh & Oak sts.,

OAKLAND, CAL.

Light & Dark Brahmas, Buff, White and Partridge Cochins, Spangled, Golden and Silver Polish, Spangled, Golden and Silver Hamburgs, Pure White-faced Black Spanish, White and Brown Lephors, Silver Grey Dorkings, Houdans, Silkies, Black Red Games, Bronze Turkeys, Rouen and Aylesbury Ducks.

All from Premium Stock of Best Strains.

Fowls of above varieties for sale, also, Chickens in the season. Eggs packed with care and sent in rotation as orders are received. 3v3-16p-1f

Averill Chemical Paint,

MANUFACTURED BY THE

Cal. Chemical Paint Co.

PURE WHITE, AND ANY SHADE OR COLOR.

This Paint is prepared in liquid form, READY FOR APPLICATION—requiring no thinner or dryer, and will not spoil by standing any length of time.

It is Cheaper, more durable, more Elastic, and produces a more Beautiful Finish than the best of any other Paint.

It will not Fade, Chalk, Crack, or Peel off, and will last twice as long as any other Paint.

In ordering White, state whether for Outside or Inside use, as we manufacture an Inside White (either Flat or Gloss) for inside use, which will not turn yellow, and produces a finish equal to the finest China Gloss.

Put up in 1/4, 1/2, 1 and 5 gallon packages, and in Barrels. Sold by the Gallon.

For further information send for Sample Card and Price List, or apply to the manufactory and office,

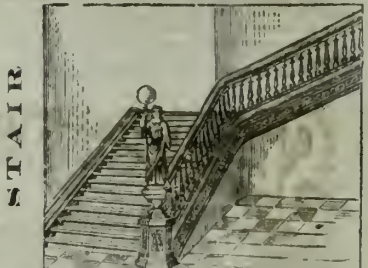
Cor. 4th and Townsend streets, S. F.

TYLER BEACH, M. C. JEWELL,

President. Secretary.

3v3-cow-1p-1y

SANBORN & BYRNES,



Mechanics' Mills, Mission Street, Bet. First and Fremont, San Francisco. Orders from the country promptly attended to. All kinds of stair material furnished to order. Wood and Iron Turners. Billiard Balls and Ten Pins, Fancy Newels and Balusters. 26v8-8m-1p

LEA & PERRINS'

—CELEBRATED—

Worcestershire Sauce.



Declared by Connoisseurs to be the only good SAUCE.

Caution Against Fraud.

The success of this most delicious and unrivalled Condiment having caused certain dealers to apply the name of "Worcestershire Sauce" to their own inferior compounds, the public is hereby informed that the only way to secure the genuine is to ask for LEA & PERRINS' SAUCE, and see that their names are upon the wrapper, labels, stopper and bottle.

Some of the foreign markets having been supplied with a spurious Worcestershire Sauce, upon the wrapper and labels of which the names of Lea & Perrins have been forged, L. & P. give notice that they have furnished their correspondents with power of attorney to take instant proceedings against manufacturers and vendors of such, or any other imitations by which their right may be infringed.

To be obtained of Messrs. CROSS & CO., San Francisco.

PACIFIC RURAL PRESS

Volume IX.]

SAN FRANCISCO, SATURDAY, MARCH 6, 1875.

[Number 10.]

Cheap Land for Alfalfa.

A correspondent writes us from Linden, San Joaquin county, in relation to cheap lands adapted to the growth of alfalfa. We are informed that in Kern county, on both sides of King's river, there are still some quarter sections of Government land open to pre-emption at \$1 25 per acre. The Stockton and Visalia Railroad own a good deal of land there, but their land lies in alternate sections and the Government land within the limits of the railroad grants may be pre-empted at \$2 25 per acre; outside these limits there is still land that is subject to pre-emption at \$1 25 per acre. Much of the land here is under different degrees of improvement and some of it has recently been sold at low rates. Within the past year one of these occupied quarter sections, with water-right paid up, and having considerable improvements has been sold for \$2,000. This was on Muscle slough, where the land is said to be particularly well adapted to alfalfa.

King's river affords abundant material for irrigating all this land, and there are now five or six co-operative ditch companies and nearly all of them are already in operation. The system has been proved a great success. Following is the names of these ditches: Peoples ditch, Last Chance, Cross-cut and Lake-side.

A share in one of these ditches giving the holder the right to one cubic foot of water for 50 years, costs \$400. This amount of water, it is said, is sufficient for irrigating 160 acres, or a quarter section. Two ditches running across the quarter section will, in twelve months, thoroughly irrigate it with the above amount of water. For dairying, depending principally on alfalfa for feed, or for mixed farming, this region is said to offer every encouragement.

Home hunters in coming to this county should bear in mind the fact that in new countries there are always some who are ready to "sell out." If Americans ever obtain possession in the better world—and we hope to meet many of them there—they will very likely want to "sell out and go west," and the most effective incentive that our religious teachers could hold out to induce the American people to strive to reach the seventh heaven, would be to tell them that it lies seven degrees farther west.

So if any one should desire to locate in the country here described they will in all probability find some one who will sell at moderate rates. It will be observed that we have confined our considerations to one locality. If our friends in other sections will favor us with information of a reliable and practical character concerning their own neighborhoods or other places, they will confer a favor on us by doing so, as we desire to do justice to all portions of the country as well as to all who wish take up their abode here.

PEACH TREES AT THE EAST.—In connection with the subject of fruit-drying in 1875, we would mention the fact, that during the present winter the peach trees of Michigan and Maryland, have suffered very severely indeed. Not only is the prospect of fruit for the coming season destroyed, but the trees have been killed to a great extent. Many full-grown apple trees both in Wisconsin and New York have also been winter-killed. This will infuse increased activity into California fruit-drying operations, as we shall probably be called upon to supply the deficiencies caused by these disasters.

FLORAL INTERCHANGE.—Mr. F. P. McLean, a student of the University of California, informs us that Prof. Bessey, wishing to obtain the California flora, an arrangement has been effected, through the officers of the University, by which Prof. B. is to receive the flora of California, and the University will receive in return the flora of Iowa. Mr. McLean will superintend this interchange. He has already made a collection of California flora, which was sent to Dr. Keck, of Heidelberg, Germany

The Great Bigarreau of Mezel.

The increased interest now being evinced throughout the continent and northern part of the State in the cultivation of small fruits, the cherry, apricot, plum, etc., is generally noted by those interested in horticulture.

Among the many natives of cherries which seem particularly adapted to cultivation on this coast, few will be found to excel in many valu-



THE GREAT BIGARREAU OF MEZEL.

able characteristics the Great Bigarreau of Mezel, an illustration of which is given on this page of the RURAL PRESS.

The fruit is in size very large; in form generally obtuse, heart shaped and flattened on the sides; the surface is uneven; color, a dark reddish purple, approaching to a black at maturity; the stem is long, rather slender and placed in a deep regular cavity; the pit is large and oval; the flesh a purplish red, firm, a trifle coarse, but juicy, sweet and good—though not of the highest flavor. In the Eastern States it ripens the last of June or the first of July.

The tree is a strong, vigorous grower, rather crooked when young, but becoming at mature age a broad, open, spreading tree, with large leaves and producing abundantly. The fruit has always commanded a high price in the Eastern markets. It is not a large bearer when young, but after twelve years becomes a good and regular bearer.

THE PATRONS HAND-BOOK.—This is a cheap, ready reference book issued by the publishers of the *Kansas Farmer*, and intended for the use of the Order.

A Treatise on Hops.

A subscriber writes us from Cahto, Mendocino county, asking for a treatise on hops. We refer our friend to volumes seven and eight of RURAL PRESS, where he will find a series of articles—"Hints on Hop Growing"—which will give him information more thorough, and of a more practical character than he can get from any special treatise. The articles are seven in

Black Walnut.

We give below a statement showing the past history, the present supply, and the future prospects of this valuable wood. It will be seen that some one must commence the reproduction of black walnut wood; and we would take this occasion to call the attention of those who are embarking in tree-planting in California, to this variety. We can vouch for the adaptability of our soil and climate to the growth of black walnut. We know of cases where these trees have made as rapid growth, in height and diameter, as the locust, one of our fastest growing California trees. More than this we can answer for the quality of California black walnut wood; it is of good color and solid, fine texture.

It is not to be supposed that all parts of this State are adapted to the growth of black walnut; and we should consider that it is only in certain portions of any State that this, or any other tree, in fact, finds everything suited to its wants; but along the river bottoms, or in the wash soil at the base of the foot-hills, these trees would undoubtedly do well. The subject is well worth the consideration of those who are giving their attention to forest tree planting. Following is the statement alluded to:

The best black walnut in the United States is found in Indiana. Forty years ago could be found in that State a crop of black walnut unequalled in quantity and quality, but to-day it is not to be found in such immense trees, neither is the number of trees by any means so numerous. The largest and best trees were used years ago for fence rails and such common purposes; then it had no particular commercial value. Before walnut came into general use, the most of domestic furniture was made of cherry; walnut has now entirely superseded this and all other woods. Thousands of fence rails can be found to day through Indiana that were split more than half a century ago, and they are as sound now as then, save the wear and tear. Of all hard woods the walnut is the most durable, save red cedar, and possibly, in the ground, black locust would equal it. Our walnut is comparatively gone. In isolated parts of the country, where this timber grows, there is yet some of inferior quality, but to a limited extent. But the general black walnut growing in the deep forest, in the rich lowlands in its primitive nature, is a thing of the past. The general supply must now be gathered from the four quarters of the earth to supply a demand that required a century for its culmination, and its culmination witnesses the astounding spectacle of the almost entire extinction of the valuable material.

Kentucky has quite a stock of good walnut, and much that is very inferior on account of its gray color, and tough, hard textures. Missouri also has some of rather an inferior quality. Western Ohio claims good walnut, but that of Eastern Ohio and West Virginia is poor in quality. The whole stock of the States is not equal to a full demand for ten years to come. Furniture manufacturers do not now use it as lavishly as they did five years ago. Other woods are substituted when possible, and 1,000 feet of walnut are made to go as far again as it did a few years ago.

Chicago uses annually in her different branches of manufacture, such as house, school and office furniture, also in finishing material, doors, mouldings, counters, etc., 14,500,000 feet. Probably about half of this is bought at the mills, and does not go into the account of the dealers at all. Many of the largest manufacturers direct, or have mills, or an interest in mills, in the walnut district.—*Cor. Lumberman's Gazette.*

The farmers in the vicinity of Vallejo and throughout Solano county are highly delighted with the weather that has been prevailing lately. Heavy dews at night and comparatively warm weather in the day are making the wheat grow fast. The only fear is that the fruit trees may catch it from March frosts by budding out too early.

FLORAL WORK.—Briggs & Brothers, seedsmen, of Rochester, New York, sent us a copy of their quarterly publication, *Floral Work*. It contains 112 pages, well filled with illustrations of fruits, vegetables and flowers, and with interesting and practical information concerning them. The material and workmanship are of a superior grade, and some of the colored illustrations of flowers are really beautiful.

CORRESPONDENCE.

[The RURAL PRESS, in opening the columns of this department to its correspondents, does not desire to lay before its readers anything which is not in keeping with its character and position as an agricultural and family paper. Facts are always thankfully received; and suggestions and matters of opinion on subjects connected with agriculture are also acceptable; though correspondents are to be understood as speaking for themselves and not for the PRESS.]

Los Nietos—Review of G. K. M.

EDITORS PRESS:—It may not be agreeable to have your correspondents criticised, nor would I essay to criticise any one of them, personally; but, as I conceive that your object in receiving local communications, is to arrive at and make known, a true knowledge of all parts of our peculiarly blessed State, I can easily reason that if any one should, from any motive, or without a motive, understate or overrate any particular locality, you would be glad to have him corrected.

Now I am not of that class so particularly denominated, by one of your correspondents, as "quill drivers," hence I may claim exemption from the odium implied in the name he gives to professional correspondents, and, also from the suspicion of interest as I have no connection whatever with the numerous land speculations springing up in this southern country.

My sole purpose is to correct some misapprehensions that may arise from the communication of G. K. M., in the PRESS of Feb. 13th, and my criticisms will relate to that portion in which he answers some queries of friends north of the Bay. He devotes himself, apparently, to the answering of one question: "Has the country no drawbacks?" and, by implication principally, shows up these without palliation.

For instance: "Wood and water are, as a general thing, very indifferent in this country," is only comparatively true as regards wood. I defy anybody to find an average of water any better than that of Los Angeles county. The water of our rivers is almost as pure as rain-water, and invariably soft. The water of our wells, (surface) is much better than the well water of the Sacramento valley, and our artesian water is of course of the very best, a salt or mineral well never having been found in this country. It is true, that, as compared with the well wooded hills and valleys of the Bay counties, our wood is very inferior. But in this as in other things we see the wisdom of the Creator. Where much is needed, much is provided. But your correspondent seemingly to secure a strong comparison, has allowed himself to intimate more than is true "when you seldom get a stick as large as your wrist." For the information of those who do not know, I will say that you may plant willow poles, and they will (on irrigated land) grow to the diameter of 3 to 4 inches, and the length of 20 to 30 feet in three years. Of course, in willow thickets you will find every size within certain bounds—from the size of little awitches to saplings 3 and 4 inches through. I will explain a fact, of which, perhaps, Mr. G. K. M. is not aware. Almost all the "willow thickets" in Los Nietos township are the growth of about eight years from the seed, the seed having been deposited by the freshet of '67. I think every one will agree with me that plenty of willows, 3 to 4 inches in thickness, 20 to 40 feet long, and standing so thick that you scarcely get through them, would not be a bad thing in any country. The truth is, sir, that they make an extremely handy wood for this country. Of course we like oak wood if we could get it, and there is much of it on the foot of the main range of mountains about twenty miles to the north of us, but that is a little too far to go for a luxury when we have a plenty of the useful all around us. I think I may safely assert that there is more oak wood burned in Los Angeles city, than any other kind.

Now a few words about the temperature of our climate. Mr. G. K. M. says: "My thermometer has stood at 32° many times this winter." This was not a bad climate, if this assertion was entirely true, as 32° is only freezing point. The question is, what does "many times" mean? Do these two little words mean, many times at intervals during the whole winter, or for many days together during one period. You, of course, remember the cold snap in January, lasting for about twenty days and immediately preceding our last rain. We have had no other day of cold weather, and, if the mercury only went down to 32° then, we have not any need of the oak wood that grows on the hills of Sonoma.

Mr. G. K. M. fills me with surprise when he announces that "land titles in many localities are rather shaky." Except where squatters have jumped grant lands, I have never heard of any "shaky" land titles; and in that case you will readily perceive that if the grant holder can establish his title, it cannot be very "shaky."

Finally, Mr. G. K. M. is a new comer in these parts, and I fancy is too prone to measure everything by the standard of a country he is sorry he left.

The Rattle Weed in Solano County.

EDITORS PRESS:—In a recent issue of the PRESS appeared a request for information in regard to the poisonous rattle weed. I can contribute some facts concerning it, but whether they will be in the line wished for I cannot say, as I think most people in this country, at least, know the manner in which it affects stock; however, if what few suggestions I make are of no service to the doctor you speak of, there will be no harm done; but on the other hand, if they should lead to any solution of the question, he is welcome to them, and I will feel gratified in being able to contribute to his investigations.

I have had a good opportunity for several years past of seeing its effects upon stock, and will now give them as my experience dictates: First it apparently acts like a slow poison, and seems to affect stock like tobacco does men. When they once acquire the habit of using it they cannot quit, till it kills them, and it will do that in about five months. They are more liable to eat it in the fall than in the spring, when everything is green, and it is not as strong then as when it gets old. The time they are most liable to eat it, is when the feed first dries up; then the rattle weed being still nice and green, they get to eating it. Young colts and calves are more liable to eat it than any other kind of stock. It affects them in different ways; in some cases it settles in the animals legs and they seem to lose the use of them. I have seen horses affected in that way, and I don't think that an animal once affected will ever entirely get over it, unless it be a very slight attack. Grown horses badly affected with it generally keep poor, although they may eat as much as any horse. They won't lead, neither will they back; but they seem to be on the pull; as you have to stop them by main strength, they paying no attention to the word "whoa." I have never seen a mule affected with it; and it is needless to add a hog, for they are poison proof.

I now give you the case of a young steer that died under my observation last year. In June he was fat and looked finely, and I did not see him for about one month; when I found him in a thick patch of rattle weed, all alone and just able to walk, and it was only a few days until he was a dead steer, but before dying both horns came off. This is about as much as I think will be of any service to the doctor, it being a plain statement of my experience with the weed.

A READER OF THE PRESS.

Suisun, Solano county, Feb. 22, 1875.

Acacia Gold.

Since the poet wrote of the Acacia "waving her yellow hair," our knowledge of this interesting and valuable family of plants has been vastly increased, first by the addition of some thirty species from Australia and New South Wales; and afterwards by the successful propagation of desirable East Indian and South American species in our green houses. Just now the acacia's are in all their glory, a fitting introduction to the sun gold of hill sides and meadows which comes to us with winds of March.

Many of our acacia's belong to the sub order *Mimosae*, or sensitive plants. Two very fine species are sold by all our florists—a molissima and a melanoxylon, whose leaves are like ferns for minuteness of division, and both are desirable for profusion of bloom. I know only one species that is not evergreen—to my eye the most beautiful of all—a dwarf Mexican species, of which Mr. Nolan has a single tree, which is covered with sharp spines.

The hedge around the convent yard at Los Angeles is of this plant—the balls are of medium size, single, and exhale a very delicate perfume which lasts for years. The thorns add to its value as a hedge. It bears the shears well, but never becomes very thick. There is some doubt about the species, and not having seen it in fruit, I am not sure of any but the Mexican name, mesquit, which is applied to several other and entirely distinct plants. As a door yard tree, I think very much of *acacia reclinata*, the "drooping vattle" of which there is a very beautiful specimen now coming into bloom on the University grounds. *A. sophora* is a very graceful shrub. *A. reticulata* blooms all the year round. I think no table bouquet is perfect without a trace of acacia perfume, and happily we have a sufficient number of shrubby species to keep up the succession.

Acacia lineata is one of the most graceful of small trees—a fine row of these may be seen along Mr. Dilger's grounds, in Oakland, and at Mr. Potter's we may find a hybrid acacia bearing the name of that pioneer cultivator, *Acacia Saligna*, has the largest and most deeply colored blossoms, *pyramidalis*, and *prominens* are desirable species. In all, there are twenty valuable miniature trees of this family which have been tested on this coast. Constant stirring of the ground seems to be required by the acacia. I

notice that they do not thrive as well on lawns as where the soil is left bare, and frequently raked. Gophers destroy numbers of them, the roots rot very easily after being wounded.

In Australia several of our acacias attain immense size—*melanoxylon* is often found 100 feet high in the "bush." *A. leucantha* is valuable for timber. I have planted twelve species which are of use in the arts, some for the tannin contained in the bark, others for cabinet purposes; but either the soil was not sufficiently well drained, or the winds did not suit them, they have nearly all straggled out of existence. Some have been affected by a fungus disease of the bark between the crown and the root.

Thirty species of acacia were planted in the spring of '72 in the University grounds, of which only twenty survived the second year. They had neither the protection or care essential to the best results. Some that we lost are very successfully grown in the San Mateo gardens, where they are sheltered by belts of evergreens from high winds, and receive the best tillage. One of the best collections is to be seen at Mr. A. Hayward's, where the trees have attained a large size. The best place to study acacias is at Mr. Nolan's in Oakland, who has made a specialty of Australian trees and shrubs.

Every one should have at least one winter, spring and summer flowering acacia. Every one who has a corner lot can afford a golden pillar of the larger kinds; with less ground, one should be content with the shrubs. For the next two months our Eastern friends will find many a bonanza to be enjoyed for the seeing, which no wealth can buy in less favored climates.

I grieve to hear from our gardens, that this fortunate year, to so many, is marked with fewer investments in acacia gold than any of our seventies; for no other family of plants, take it all in all, is so liberal in its returns of beauty, the highest of all uses.

JEANNE C. CARR.

Printing and Block Making.

New Manufacturing Enterprises for California.

EDITORS PRESS:—Some time ago, in one of the San Francisco papers, I noticed an article on "Oil-Cloth Printing," and that the blocks were made here. The incident recalls the printing days of the long ago, when the calicos and shawls were all printed by hand, requiring a large number of skilled mechanics to cut the patterns on blocks, and a seven years' apprenticeship to learn the business; a few small figures were engraved on copper rollers and printed by machinery. The engraving part was also accomplished by hand, requiring a steady hand and bright eye, and few really attained the distinction of being good workmen. Designers were another class engaged at print works, designing new patterns and preparing those accepted for the cutter and engraver. Skilled mechanics engaged at the above occupations received compensation remunerative for services, which in time established trades unions, compelling owners of factories to comply with terms which at this late day seem to have been very unreasonable. My own experience leads me to the conclusion that nothing but disaster follows sooner or later all compulsory measures adopted between those who hire help and the hired. Printing by hand and block cutting are almost things of the past, and soon will not be known outside of the pages of history. When in its glory no happier people existed. Good wages were obtained, and as freely spent, and it is with a sigh we part from the long ago, when calico printing by hand was the light which brightened many a fire-side. With the fall of hand printing, block cutting also fell. A remnant of the old glory still finds employment in house paper establishments and oilcloth carpet works. But as the business is a dying one few will care to learn the trade. The present skilled workmen will carry with them the secrets of the past, and machinery remain master of the situation.

Engraving

Is now performed by girls and boys. Acids and etching serving as the steady hand and engraver. Calicos and delaines are now printed with a speed and accuracy truly astonishing to behold; and so is house paper, but the house paper pattern has still to be cut on rollers, by hand, giving employment to the block makers of the past.

As oilcloth printing has been established in San Francisco, why should paper printing not follow? If one can be successfully followed, so might the other, also. If no other inducement, the large freight bills of themselves would give a large profit. If calicos are ever printed in California, those engaged will reap a rich reward from the same cause.

Delaines

Would be a profitable investment—cotton and wool supplied at home, and a good market for the goods when finished. Skilled workmen could be easily obtained if capitalists would only inaugurate the movement, giving employment to those who are fitted for such occupation, and retaining capital at home instead of enriching France, England, or Rhode Island.

JOHN TAYLOR.

Mt. Pleasant, Jan. 25, 1875.

The Hair Worm, or Horse-Hair Snake.

A lady friend, who resides on Russian Hill, has sent us a lively specimen of that singular species of animated nature, commonly known as "the hair worm," or "horse-hair snake." It came into the possession of our friend from the faucet in her dwelling, connected with the Spring Valley water works. She intimates that it is just a little dangerous to indulge in aqueous potations from the faucet in the dark. We should think it was. In answer to her inquiries as to its origin, and how it came all the way through the pipes, we append the following:

Most of our readers are doubtless familiar with the form and appearance of this singular worm or snake, and many of us, when boys, and some of us when full grown men and women, were fully impressed with the belief that a hair from a horse's tail, when left in a pond or other still, warm water, would turn into one of these singular creatures. It has been a popular belief that if incautiously handled, it will bite the ends of the fingers and occasion that peculiar sore or gathering called a whitow. But the microscope shows that it has neither jaws nor other instruments by which it can either bite or sting. Indeed, it has not even a mouth—but obtains its sustenance by the absorption of fluids through a membrane over that part of its body where the mouth should be. Joseph Leidy, a well known Philadelphia professor, once tried a series of exhaustive experiments to prove that this popular notion of its origin could not be true. The microscope and scientific investigation, however, have more fully proven that this, like every other living creature, springs from an egg in the first place.

Science informs us that this is not an insect, but belongs to that class of parasitic worms, which live and thrive, for a certain length of time in the intestines or substances of some other body, like the tape worm in the human system and the trichine in the hog. The name of the genus to which this worm belongs is *Gordius*, and there are quite a number of different species. The most common species of this genus, and that to which the one now before us belongs, live in the bodies of grasshoppers, crickets and various other insects; but when nearly mature and full grown, they bore their way out of their insect home, and take to the water or moist earth, where after a few days they lay their eggs, which are almost innumerable. They are laid in long strings, which look like very fine, white sewing cotton. One of these worms was seen by Professor Leidy, while he was experimenting, to lay a string ninety inches long! These eggs are exceedingly small—so small that upwards of 1,200 of them have been counted in one forty-fifth of an inch as thus laid in a string. This would give something like six millions of eggs as the product of the single worm observed by Prof. Leidy.

The eggs, exposed to the warm summer sun, hatch in about one month, and liberate worms which have very little or no resemblance to their parents. The Professor, during his investigation, succeeded in hatching several eggs. They produced small tadpole-shaped creatures, with a spine and two circles of sharp hooks—six in a circle—which could be pushed in and down out from the head. This forms a kind of boring apparatus, by which the tadpole can penetrate the bodies of such insects as may approach them. The Professor placed some of the larvae of May flies in the vessel in which the eggs were hatched, and soon the young tadpole *Gordius*, were seen to bore their way into the larvae. They were also seen to penetrate the delicate membrane at the joints of the legs of crickets and grasshoppers which were confined and placed in the vessel. They were carefully watched, and it was found that they gradually ascended among the muscles and other organs of the bodies, strongly reminding one of the similar but slower movements of trichine in the muscles of man and the hog.

Of course, their change from the tadpole condition to the worm, takes place within the body of the insect in which they take up their temporary home, living and increasing by the nutritious fluids there found until nearly or quite fully grown. That such is the case has been verified by a report from Mr. Justus Gage, who some years since wrote to the Michigan Farmer, as the result of his observations, that he had discovered that the cricket resorts to the water during the month of August to rid itself of its unwelcome intruder. Mr. G., had been led to believe that the hair worms, which were numerous in a certain locality, issued from the bodies of crickets, which were also numerous in the same locality, although he was unacquainted with the manner in which they found their way into the crickets.

One day, after he had been experimenting by placing crickets in the water to obtain hair worms from them, and had succeeded in securing two specimens, he noticed a cricket crawling up the side of his water pail. It jumped into the water, lay quiet for a moment, produced a hair worm some six inches in length, and then made its escape nimbly over the edge of the pail. About the same time he found a worm some seven inches long in a dead cricket which he found under a stone.

Irrigation in California.

No person who has not given this subject thoughtful inquiry is aware of the value and extent of irrigation even now. What it will be a quarter of a century from now can hardly be approximated. Our large irrigating canals are as yet incomplete and few in number. They are merely the beginning, but this beginning must mark a new era in the productive capacity of the State. The San Joaquin Canal and Irrigating Company has built forty miles of canal, having a mean width of fifty feet and a depth of five and a-half feet of water, which is capable of irrigating about 100,000 acres of land. Nine-tenths of the land through which this canal now passes is owned by one firm, who pay 1.25 per acre per annum for irrigation. This is a lower rate than is paid either in Italy, Spain or India for a like amount of water. The King's river irrigating canal is six miles long, thirty feet wide and four feet deep, and has a fall of a foot to the mile. This, when extended, will irrigate from 60,000 to 70,000 acres of land, if there is water to run the canal full with that fall. The Fresno canal is now ten miles long, forty feet wide, three feet deep, with a grade of eight-tenths of a foot to the mile. The canal owned by Chapman, Lux & Miller is thirty miles long, from thirty to thirty-five feet wide, and two and a-half to three feet deep, with a grade of one foot to the mile, and will irrigate from 70,000 to 50,000 acres. In computing the extent of country a canal will irrigate, many questions are presented which render all estimates uncertain, as,

- 1, Whether the canal is run full of water.
- 2, Its grade.
- 3, The character of the irrigation required; some grains requiring twice the irrigation that others do, and some soils more water to thoroughly saturate them than others.
- 4, Whether two crops are to be raised upon the same land in the same year.
- 5, The amount of absorption and evaporation.

The estimates of the capacities of the canals just referred to are below that of the proprietors, but it is believed near the true figures are given, for the above estimates are founded upon a long line of statistics furnished by other countries where irrigation has commanded and received careful consideration from the most distinguished engineers. It may also be remarked that thorough irrigation will require more water here than in any of the large irrigating countries except Egypt, for the rain-fall is much greater there than with us. In the irrigated portions of Italy the average annual rain-fall is about thirty-eight inches; in India over thirty; and in some localities above forty; while our average annual rain-fall is less than twenty-three inches, and in the San Joaquin valley it will not exceed ten.

It has been said that he who makes two blades of grass grow where one only grew before, has benefited his race more than the most successful General. I submit that simply doubling the production of this State will not be half the actual increase where land is irrigated. But before dwelling upon this branch of the subject many inquiries of grave importance, and some of doubtful solution, present themselves to be answered. Irrigation has been successfully pursued from the earliest historic time. It was old when the pyramids were new. Irrigation made Egypt the granary of the world, and to-day the valley of the Nile produces two and three crops a year; one or two of them by irrigation, and that irrigation of the rudest and simplest character. In China, in Italy, in Spain, in India, and in some parts of France, irrigation dates back to the commencement of land culture. It commenced in necessity and has been pursued ever since for profit. It is not an experiment resting upon the future to prove its advantage or usefulness, but a success tested by the most careful inquiry made by the most civilized nations of the world. These experiments have been so numerous and so varied that they give us an authority upon every side of this to us intricate problem.

In general, irrigation will not succeed where the winters are long and cold. Indeed, it has been shown that only in such mild and balmy climates as those of Egypt, Italy, Spain, India and California will irrigation prove successful. This arises from the facts: First—Where there is hard freezing, the ditches and canals require extensive repairs every spring before using. Second—That where the winters are long, the summers are short, and the soil so moist that irrigation is not required. Third—Irrigation will not, in general, pay where but one crop can be raised in a year. Has California such a climate? We have in this State over 200 cloudless days in the year; and, according to the statistics furnished by Hittell in his admirable work on the Resources of California, on an av-

erage not over sixty rainy days. In San Francisco the difference between the average temperature of July and January is only eight degrees; in Monterey, six; in Sonoma, twenty-one; in Sacramento, twenty-eight, and in Santa Barbara, eighteen; while in New York it is forty-two; in Naples, thirty; in Genoa, thirty-one, and in Algiers, twenty-three. In San Francisco the average mean temperature in January is 48; in Los Angeles, 52; in Sacramento, 45; while in Naples it is 45; in Genoa, 46, and in Algiers, 52. It will thus be seen that our climate is the perfection of all that Providence has bestowed upon any land. Our summers are long and rainless. Grain never rusts from moisture, nor is labor ever stopped by storms. We have neither snow nor ice to retard cultivation. There is not a day in the year that grain cannot be sown if the land is softened by rain or artificial means. Our winters under our present system of dry culture, are our seasons for planting, and May, June and July for harvest. By irrigation an enormous crop of wheat, barley, oats or hay could be raised in the winter and spring; and in the summer, corn, potatoes, tobacco, cotton and garden vegetables. There will be no limit to our production under a system of irrigation as extensive as that in India, Italy and Egypt. It may be safely admitted that no place where irrigation is extensively practiced is as well situated in all respects as California. In the universe of God, it is said, there are no accidents. In the gift of these transcendent qualities of climate and soil to California, it would seem that a benign Providence intended to close man's migratory circuit of the earth in a land laden with his bounty. These marvellous gifts are inert. Labor must develop them—nature will not. Nothing but sturdy enterprise and unvarying purpose can accomplish this to its fullest end. If accomplished, the story of our growth will be more wonderful than the dreams of Oriental fancy. No such treasure was ever before committed to man. None will be more unwisely wasted if we permit it to go undeveloped.

It is an admitted fact, proven by the experience of twenty-four years, that the average rain-fall in California will not, more than one year in two, mature a crop on one-half the arable land in the State. During the ten years from 1862 to 1872 the annual rain-fall in the San Joaquin valley and in Los Angeles averaged less than ten inches. In some years in these localities only from three to five inches fell, and in no year can the rain-fall be depended upon, except for the months of December, January, February and March. The remaining eight months of the year, though not all rainless, can not be safely relied upon. Indeed, it is estimated that there are at least 10,000,000 of acres of valley land in this State that can not be successfully cultivated without irrigation. Most of these lands are now assessed at from \$1 to \$3 per acre, while with irrigation the lowest probable assessed value would be \$50 per acre. In such a country and with such a climate as California, water in canals for the purpose of irrigation and cheap transportation would seem a manifest necessity, but the pertinent inquiry presents itself, Have we the water supply?

If we are destitute or short of this needed supply all our hopes fall to the ground. The Tulare Lake, in the southern portion of the San Joaquin valley, covers an area of nearly 700 square miles, or about 450,000 acres, and is one hundred square miles larger than the bays of San Francisco and San Pablo. It has an elevation of two hundred feet above sea level, is two hundred miles from tide water, with not a hill or rough place of ground on the west side of the San Joaquin valley from it to Suisun bay. The irrigable land of that valley, on the west side of the river, which water from this source will reach, is about 400,000 acres, not an acre of which can be depended upon for a crop with any degree of certainty. King's river, the San Joaquin, Kern, the Sacramento, Clear lake, Silver lake, the Blue lakes and Lake Tahoe make the supply for irrigation purposes more than ample for all future time.

With canals of the dimensions needed, the produce of the two great California valleys can be floated down to tide-water at an expense of not exceeding \$2 per ton, and if water is sold at 1.50 to 1.75 per acre per annum, the profits will be handsome to the companies, while to the farmer it will be perpetual guarantee of good crops. Nothing within the range of human ingenuity will go so far towards relieving this State of the great land monopolies. Cotton fields will be seen everywhere in the great stretch of country reaching the whole length of the Sacramento and San Joaquin valleys. Every variety of production which our soil and climate are capable of will be produced there. Under irrigation one hundred and sixty acres of land will be an independence to any man. Happy the home of the farmer when the measureless pasture lands of Cal-

ifornia are cut up into small farms, and by irrigation rendered capable for man's use. There is already a large extent of country irrigated here. Indeed, there is hardly a vegetable garden or an ornamental yard in either city or country that is not irrigated. All the strawberry vines, raspberries, blackberries, and many of the currants are irrigated. Some of the largest vineyards, like the Cocomungo and Natoma, are also irrigated. All the orange and lemon orchards, and, in fact, all semi-tropical fruits, require irrigation in this climate. Grain is irrigated in some portions of the State, but to a very limited extent.

Irrigation here is accomplished in three ways:

First—By ordinary wells, the water being raised by windmills, horse or steam power.

Second—By artesian wells, where the water flows out of the top of the pipe.

Third—By ditches, flumes and pipes, which connect with water courses.

Agricultural Items.

RAILROAD LAND IN TULARE.—The Southern Pacific railroad company has received a patent, which was recorded in the clerk's office of this county, says the *Tulare Times*, for 329,600 acres of land, mostly lying between Goshen and Delano. There is some excellent land included in this grant, and through its sale Tulare county will receive a number to its population.

GRAIN IN STORE.—On Saturday, the 13th instant, the following amounts of grain were stored on the line of the California Pacific: At Vaca, 200 tons; Vacaville, 700 tons; Batavia, 200 tons; Dixon, 2,500 tons; Foster's, 500 tons; Woodland, 2,500 tons; Knight's Landing, 4,000 tons. Total, 12,400 tons.

THE GRAPE CROP.—The prospect of a large crop this year is good. The heavy and long-continued frosts of December and January kept back the buds so effectually that it is believed that they will not be far enough advanced to be injured by late spring frosts.

The wild flowers, those beautiful floral harbingers of spring, are beginning to make their appearance upon the plains to the north of the city. Like the hibernated swallow, their appearance is welcomed by all.

GRAIN FREIGHTS.—The Southern Pacific railroad company has issued a new freight tariff of special rates for grain, all along the line of the road. It is to take effect on and after July 1st.

The farmers of Yuba and Sutter counties report their grain-fields never looking better than at present, and if nothing unforeseen happens big crops are insured.

Messrs. Rideout & Binney, of Marysville, have disposed of the Kimball sheep—a flock of about 2,400 head—selling them to John Forbes, of the Honcut, for 250 per head.

G. W. GRIDLEY, of the Gridley farm, informs the *Chico Enterprise* that the present season has been most propitious for sheep raising. Lambs are coming in fast, and feed is excellent.

A PANTHER that had been making raids on the sheep in the neighborhood of Anderson valley, Mendocino county, was killed a few days ago. It measured eight feet two inches from tip to tip.

CROPS IN YOLO.—The crop prospects in Yolo county were never better, the past week having been warm, and grain that has been kept back by the cold is now doing exceedingly well.

MORE RAIN NEEDED.—Farmers in San Mateo county are beginning to fall in need of more rain. The side hill lands in that vicinity are drying up rapidly.

FARMERS and fruit-growers in the vicinity of Vacaville report favorable prospects for a bountiful season.

A LARGE number of cattle are going in the spring from southern Oregon over to Klamath and Goose Lake.

THE Marysville *Appeal* says the cherry crop in the First Ward is destroyed, the buds having been killed by the cold water of the flood.

FRUIT.—Present appearances indicate a bountiful yield of fruit throughout the State, the coming season.

THE Sacramento river on Friday evening was 14 feet 6 inches above low water mark.

TURNING THE TIDE.—Watsonville is shipping large quantities of eggs East.

A LARGE force of Chinamen are at San Felipe clearing tobacco land.

A BEAUTIFUL ART.—The Japanese make a beautiful bronze—five parts of tin, ten parts lead, and 100 parts copper—which is cast in thin sheets, upon which beautiful designs in silver is incrustated in the following manner: The plates are covered with a varnish upon which the designs are graven with a style, the plates are then plunged into a suitably prepared bath to receive a deposit of silver upon the graven lines. When a sufficient deposit has been formed on the parts from which the varnish has been scratched, the plates are placed in a muffle furnace, in which the bronze turns black and the silver remains white and brilliant, showing up beautifully by the contrast.

USEFUL INFORMATION.

Manufacture of Oatmeal.

After the outside hull and the stratum of down covering the kernel are removed, the clean grain is ground into meal; and being deprived of its tough outer covering, care must be taken lest it be reduced to powder.

The first and most expensive apparatus required is the kiln for drying or expelling the moisture from the grain until the kernel is hard and the hull stiff and rigid. The ordinary kiln is built of brick or stone, and so arranged as to distribute the heat equally under and around the drying floor. This floor consists of sheet-iron or cast-iron plates thickly perforated with funnel-shaped holes, the wide end downwards, thus allowing the heat and smoke to pass up, and preventing the oats and dust from passing or choking the holes. The roof is constructed like an inverted hopper, with a square opening at the top for ventilation, and surmounted by a cupola with latticed sides. The oats, which are spread upon the kiln floor, are constantly stirred, to dissipate the moisture and prevent the lower strata from being scorched, until the batch is sufficiently dried. In this way, from 150 to 600 bushels per day are kiln dried, according to the capacity of the kiln.

Another style of kiln is also in use. This consists of two or more perforated sheet-iron cylinders placed in the furnace one above the other, and so inclined that the oats gradually move from the higher to the lower end. The oats, after passing through the upper cylinder, are deposited into the upper end of the second, and from the lower end of the second into the upper end of the third, and so on, the number of cylinders, their length and velocity being governed by the capacity required. This is, undoubtedly, much superior to the old style of kiln, as it has a regular feed and dries the oats much more evenly and thoroughly. After the oats become cool, they are ready for shelling.

The stones best adapted for shelling are a coarse free sand-stone. The bed-stone is faced perfectly true, but the runner has a bosom of about three-sixteenths of an inch around the eye and running back to nothing at about two-thirds of its diameter. The outer stone is dressed to a true face, corresponding to the bed-stone. The faces are picked or roughened as for ordinary grinding, but have no furrows. The runner is set upon a stiff rye, keyed to the spindle. The rye has three or four arms which are let into open grains cut into the stone. The faces of the stone are not allowed to run very close to each other, being about a kernel's length apart. The duster and fan for removing the hulls and dust are simple and easily constructed. The grinding is sometimes done on the hulling stones, but it is generally advisable to use much smaller stones, furrowed, and having a smoother and much less grinding surface.

The apparatus for bolting and sifting is very simple in construction, being a series of inclined sieves placed one above the other. These sieves are usually made of tin or zinc, into which are punched round holes of suitable size and sufficiently far apart to allow the hulls to slide over. The meal passes through these sieves, while the bran passes over it at the lower end of each.

THE PRESENT TIMBER SUPPLY FOR EUROPE, and possibly, in the not very remote future, for the Atlantic States of America, comes, and will come, from Russia and Finland. Large quantities are obtained from Sweden and Norway, which contain extensive tracts of forest land; but the principal resource must be from the extensive forests of Russia, from which timber is now imported by Great Britain alone to the amount of several millions of pounds sterling annually. From Russia also ultimately will come the European supplies of furniture and wooden ware. The Russian market will be for many years to come an increasing one for all sorts of wood-working machinery. American manufacturers who have the sagacity to cultivate this market, and the enterprise to be among the first that enter it, can scarcely fail to build up a large and profitable trade in wood-working machinery.

A WORD OF CAUTION.—Experiments by Galletly show how dangerous it is to allow greasy refuse to lie, even in small quantities, in warm places. He found that such waste dipped in boiled linseed oil, and wrung out, required, at a temperature of 170 degrees only 105 minutes at the most to take fire, and that the bulk need not be very great as a match-box full at 167 degrees took fire in one hour. With raw linseed oil it required 4 to 5 hours; with rape oil at 170 degrees over 6 hours; with castor oil at 185 degrees, over a day; with olive oil 1½ hours; and with sperm oil it would not take fire at all. The heavy coal and petroleum oils were found to retard oxidation by excluding the air. Silk waste did not take fire, but gun-powder placed in it was fired in an hour; and in cotton under similar circumstances only after 1½ hours.

IMITATION OF MARBLE THAT CAN BE POLISHED. An elegant imitation of marble is made in Dresden for architectural purposes, by impregnating sandstone with silicic acid and alumina. In Naundorf, such stones are prepared which are intensely white, transparent, and capable of taking a polish. By the introduction of suitable pigments in the impregnating mass any desired color is produced. It is stated that the cost is much less than real marble, while it resists heat better.

PATRONS OF HUSBANDRY.

STATE GRANGE HEADQUARTERS.

I. G. GARDNER, State Agent; Executive Committee Rooms; Fruit Growers' Associations, and Farmers' Mutual Life Insurance Company, all at No. 6 Liedsdorff street. W. H. BAXTER, State Secretary, at Grangers' Bank, 415 California street, S. F.

Grange Clubs for the Rural.

The Secretary (or some other Patron) is invited to act as club agent for the PACIFIC RURAL PRESS in every Grange. Circular and sample copies sent free. Five or more names will constitute a club, at the rate of \$3 a year. No new subscriptions will be taken without payment in advance. We will pay the postage after Jan. 1st, 1875. All club subscriptions in Granges should end on the last day of the month. Old subscribers may join the club by paying the Secretary up to club dates. Every Patron farmer should read a reliable agricultural paper. We need the support of all on this coast. Help the Secretary (or club agent) to make up a large list in your neighborhood. Don't delay.

NOTICE TO STOCKHOLDERS OF THE GRANGERS' BANK OF CALIFORNIA.

At the meeting of the Directors, on Feb. 9th, the following resolution was passed:

That all assessments due and not paid on Feb. 1st, 1875, shall be charged interest at one per cent. per month from that date till paid. It will be to the interest of all delinquents to give this notice prompt attention.

Also the following resolution was passed:

That on all stock taken on and after the first day of April, 1875, a premium of one per cent. per month will be placed, reckoning from Aug. 1st, 1874, on all assessments payable up to the time the stock is taken.

F. A. CRESSEY, Sec'y.

San Francisco, Cal., Feb. 9th, 1875.

Secretaries will be supplied with a printed list of subscribers for this paper upon sending a list of post offices within the range of their Grange. Also with blank reports, etc., for clubs.

Aid to the Kansas Sufferers.

DEAR SIR:—We send this circular to you as a matter of information in the interest of the people of Kansas, and to hasten the shipment of grain to this State by any who may feel disposed to contribute grain for seed and feed, to aid those of our people who are unable to procure the necessary seed and feed to put in a crop for the coming season.

The Legislature of our State has appropriated \$5,000 for the use of the Executive Committee of the Kansas State Grange, to pay freight on grain in bulk, in car load lots, shipped to their agents. We urge all our friends to whom this may come to forward as early as possible all contributions of grain, and we will pay freight charges when shipped in accordance with the following instructions:

Ship all grain for the following named counties to J. G. Otis, State Agent, P. O. H., Topeka: Shawnee, Osage, Coffey, Lyon, Wabaunsee, Cowley, Butler, Chase, Morris, Davis, Riley, Pottawatomie, Clay, Dickinson, Marion, Harvey, Sedgewick, Sumner, Harper, Kingman, Reno, Rice, McPherson, Saline, Ottawa, Jewell, Mitchell, Lincoln, Ellsworth, Barber, Barton, Russell, Osborne, Smith, Phillips, Rooks, Ellis, Rush, Pawnee, Norton and Jackson.

For following counties send to agents direct: Allen county, James Falkner, railroad station; Iola Neosho county, James A. Songer, railroad station; Galesburg; Jefferson county (north half), D. B. Germann, railroad station; Grasshopper Falls; Jefferson county (south half), W. S. Dick, railroad station; Perry; Douglass county, G. W. Goss, railroad station; Lawrence.

In all cases take a bill of lading and forward the same as soon as possible to J. G. Otis, Topeka, with a letter of instructions what county it is intended for.

All other supplies forwarded by members of our Order, bill as follows: "Gov. E. S. Stover, State Central Relief Committee, for J. G. Otis, State Agent Patrons of Husbandry, Topeka, Kan.," and in all cases, whether for packages or car loads, take a bill of lading at the shipping point and forward it as early as possible to J. G. Otis, with instructions what county to go to.

M. E. HUDSON, }
WM. SIMS, } Ex. Committee,
F. H. DUMBAULD, } Kan. State Grange.
J. B. SCHAEFFER,
W. P. POPEKOE.

Topeka, Kansas, 1875.

W. H. Baxter, Sec'y State Grange, No. 6 Liedsdorff street, S. F., will receive subscriptions for the above.

Grange Visits.

Bro. C. J. Cressey, of the Grangers' Bank, will speak by invitation at the following Granges:

Petaluma, March 6th.

Walnut Creek, March 13th.

Sunol, Alameda county, March 27th.

Council Meeting Sonoma, May 10th.

No Brother or sister will regret coming a long ways to hear so good and able a farmer as Bro. Cressey speak. He has important matters to talk about and does it in a straight forward earnest way.

THE WAREHOUSE COMMITTEE held a favorable meeting at Antioch on the 27th ult. The report will be duly rendered at the meeting of the Business Association on the 10th.

The National Grange.

[Report of Proceedings, Continued.]

In our last issue we brought the proceedings of the National Grange down to the close of the session on Friday, the third day.

Fourth Day.

The chief feature of the fourth day's proceedings was an excursion up the Ashley river. The Grange and a large number of invited guests assembled upon a steamer, provided for the occasion, and proceeded first to the landing of the Atlantic Phosphate Company's works, where the party was landed and ample time afforded them to inspect the same; but as the chief interest seemed to culminate in the really objective point of the day—the elegant residence and gardens of Mr. Drayton, located a little beyond the first point reached, the report for the day from which we condense is confined almost exclusively to that. Mr. Drayton's home seems to have been a sort of a Monte Christo kind of a place, through the romantic surroundings of which the party wandered until the hour of lunch was announced, after which hour the time was spent in lunching and speaking. The "era of good feeling," which had been so happily inaugurated at the Rooms of the Chamber of Commerce was still more fully kept up at this more free and social reunion. Quite a number of pretty and very appropriate speeches were made, but we have space only for the following, from Worthy Master Hamilton, of California, who was called upon to reply to the first and principal speech of the occasion.

Brother Hamilton's Remarks.

Worthy Master of Ashley Grange, Ladies and Gentlemen: In my far off Western home, separated from you by many a mile of mountain and valley and sage brush plain, I have often heard from the lips of some of the sons of South Carolina, who had found homes among us, the praises of your city. This gem of the sunny South, whose festive halls have so often been graced with beauty and chivalry which the world cannot surpass, and whose forums have often rang with the eloquence of her gifted sons, Charleston is at once the pride and boast of every true South Carolinian heart.

In the home of my childhood I was taught Southern hospitality with a term of no unmeaning sound. And here, this day, at your own home, surrounded with bright and smiling faces, with so many evidences of luxury and refinement, California is happy to meet you and receive your kindly greeting.

The mystic tie of brotherhood which stretches like a band of iron across the continent, from Atlantic to Pacific shore, has drawn us together. From the North, from the South, from the East, from the West, we came to partake of your hospitality, and thank you for your kindness. May the noble principles of your Order, faith, hope, charity and fidelity, spread far and wide, until every part of our land shall feel their life-giving influence.

Ladies and gentlemen, let me remind you in your moments of sadness, in your times of distrust and sighing, when your horizon may look dark and gloomy, ever remember that the darkest cloud sometimes has a silver lining. God grant the day may soon again come when brighter skies will be over you. When plenty, prosperity and contentment shall surround every home. When the fires of fraternal love shall again burn brightly on every hearthstone. When the sons and daughters of South Carolina may again proudly walk erect beneath the glorious sunlight of liberty, and when warriors, poets and statesmen shall come from among them, and so emulate the heroic deeds of their ancestors as to gain for themselves honored names which the world will not willingly let die.

And, ladies, let me say to you, in my own fair land—a land of giant forests and crystal fountains—where Nature for a great part of the year covers the earth with an emerald carpet, interspersed with flowers of many a varied form and hue, where, in the spring time, the air is redolent with rich perfume, where balmy skies successfully rival those of far-famed Italy's sunny shores, we have flashing eyes and blooming cheeks, and ruby lips and matronly smiles, (with all due deference let me say it), as any before me, which we appreciate and love as only Californians know how to love. And now let me say, on behalf of myself and brothers and sisters here, that when the labors which called us here shall have been performed, and we separate, when the last farewell has been spoken, when the last fond pressure of hand and lip has been given, we will away to our homes, and will carry with us recollections of your hospitality and kindness that will afford us pleasure in many a future hour, and serve as links to bind us together with fraternal ties. These happy hours—these kindly greetings—these beautiful scenes, may they never be forgotten. May no link in memory's magic chain ever be wanting to bring them before us.

"Long may our hearts with these memories be filled,
Like the vase where roses have once been distilled;
You may break, you may ruin the vase if you will,
But the scent of the rose will hang 'round it still."

From Refreshment to Labor.

The Grange met on Saturday evening, after the excursion up Ashley river, and, with

Worthy Master Adams in the chair, transacted some business of general interest to the Order.

Fifth Day.

The day was devoted to the transaction of miscellaneous business, among which was the appointment of a standing Relief Committee; the consideration of a proposition by Bro. Hamilton for an amendment of the National Constitution; also of memorial from the State Grange of New Jersey on the subject of the importation of guano, and several other matters, none of which are fully reported.

Near the close of the session an invitation was received and accepted from the Clyde Steamship Co. for the Grange to make an excursion round the harbor, the next day in one of their steamers.

Sixth Day.

About ten o'clock in the morning the members of the National Grange, accompanied with about 1,000 persons, repaired on board the steamship "South Carolina," and enjoyed the pleasure of a delightful sail around the bay—visiting the forts and other points of interest. Luncheon was served and was accompanied with the usual amount of speaking, all of which was couched in much the same tenor as that which occurred up the river. Among other Californians, Past Master, J. W. A. Wright, was called out by a son of South Carolina. We append

Mr. Wright's Remarks

Fellow Patrons and Friends of South Carolina: After so much that has been said and so well said to-day of the rejoicing, the sincere good will and the harmonizing effects of this happy occasion, participated in by those of all sections and of almost every State, it is useless for me to consume your time by adding my mite to the general testimony here placed on record. Suffice it to say, and I am sure my brother, the present Master from California, will sustain me in saying, that, as the people of our State are noted for their cosmopolitan, conservative and patriotic impulses, so will they rejoice as heartily as any of our people at the many evidences here given of a restoration to fraternal harmony. Most earnestly do we return our thanks to all our citizens from whom we have received these great and continued courtesies. It is well for us always in life to keep before us some eminent example of the virtues to which we may aspire—an example worthy of imitation by all. Permit me to cite as the brightest exemplar of the principles of fraternal esteem and broad love of country and of all our people, the memory of George Washington. Let us remember that, as he was "first in war, first in peace and first in the hearts of his countrymen," so was he, and as Patrons of Husbandry we are proud to say it, first among the farmers of America. In view of the cordial sympathies and genuine heart-warmings developed by this interchange of generous hospitalities with our friends in South Carolina, allow me to suggest in public a sentiment which I have just heard privately expressed, that if any of our Methodist friends present will just start a shout at the end of these proceedings, this happy assembly will be in a good frame of mind to keep it going.

The time for returning was delayed to the very latest hour, and when the steamer glided into her dock the happy day, says our report, was well over. But long in the hearts of the many participants will linger the recollection of the time when the North and South and East and West sailed hand in hand across the beautiful waters of the old historic city.

The proceedings of the seventh and eighth day not received.

The Ninth Day.

The Grange met on this day as usual. One of the first matters of business was the appointment of several special committees.

The Matter of the Centennial Celebration

Was taken up by a report of the Centennial Committee, and as it was found that no provision had been made whereby an industrial association like the Grange could be represented on that occasion, as an organization, it was recommended that the Committee seek further consultation with the Centennial Directors, for the purpose of presenting to them the action and views of the National Grange, and of ascertaining whether or not some modification of the plans may be effected, whereby a proper recognition of American agriculture may be recognized by the Centennial Directors. The Grange manifested a decided interest in the proposed celebration, and expressed the hope that the entire management of this Grand Exposition will be conducted on such broad and liberal principles as will tend to harmonize all the States, and aid in spreading the peace of a millennial age among all the people.

Tenth Day.

The matter of better transportation facilities formed the chief feature of this day's proceedings.

The Committee on Commercial Relations presented a report recommending the National Grange to adopt a bill incorporating the Eastern and Western Transportation Co. The House bill of last session introduced by McCrary of Iowa was endorsed by the Grange as the one which would most fully meet the wants of the people in this direction.

The movements initiated to improve the mouth of the Mississippi were also endorsed. It was argued that the productive interests of the country—from the forest, field and mine—had been hitherto too much neglected and made subservient to the commercial interests. The time had now arrived for a change in such policy—there was a vital necessity that Congress

should take proper and immediate action to aid our productive interests by providing cheap and rapid means of transit to and from all sections of the country, and also to the outside markets of the world.

Congressional action in favor of the speedy construction of the Texas-Pacific railway was recommended. "under such cautionary restrictions and safeguards as the prudence and wisdom of Congress may devise to guarantee the Government from loss, and protect the agricultural interests of every section of the country."

The matter of the Mississippi levees was also considered at considerable length. It was held by the Grange that neither parish, district or State action was able to cope with the magnitude of the work. A larger, more extensive and uniform action was needed than could be reached by the above agencies, as hitherto employed. Congress was invoked to come forward and make the work a National one, and establish and maintain a uniform system of levees for the Mississippi and its tributaries.

It was ordered, to-day, that 25,000 copies of the proceedings of this session of the National Grange should be printed.

Tuesday's session was very busy and important, and was continued well into the night before adjournment.

Eleventh Day.

A number of special committees were appointed to-day, and among others, one on Currency.

A favorable report was made by the Committee of last session in a change of the headquarters of the National Grange, which was laid on the table for future reference.

The Committee on Finance made a partial report recommending a loan from the National Grange treasury of \$2.50 to each subordinate Grange, to be paid to the several State Granges, and repaid when called for by the other State Granges. After considerable discussion, the matter was laid over for further consideration at a future time.

Patent Laws.

Bro. Davis, of Kentucky, offered a preamble and resolution upon the oppressive nature of the patent laws, and calling on the members of Congress to take steps to prevent the extension of patents, unless upon the payment of a reasonable royalty. The preamble and resolutions were adopted.

Proposition to Meet Next Year in San Francisco.

A motion previously made by Bro. Hamilton of this State was again called up, that the next National Grange should meet at San Francisco, provided the expenses of such session should not exceed \$15,000. After discussion, the matter was referred to the Executive Committee.

Change of Time of Meeting of National Grange.

It appears by the record of to-day's proceedings that on some previous day the time of holding the annual meeting of the National Grange has been changed from February to November; and a resolution was introduced to-day that the time of

Meeting of the State Granges

Should hereafter be fixed for some time in the month of December, immediately after the adjournment of the meeting of the National Grange. The resolution was adopted.

The proceedings of the twelfth day have not come to hand.

Thirteenth and Last Day—Adjourned to Meet in San Francisco.

Considerable miscellaneous business was transacted to-day, but that which will probably interest Californians most is the following:

Bro. Moore, of Maryland, called for the special order, viz., the place of holding the next annual session.

Sister Smedley, of Iowa, then offered the following resolution, which, after sundry amendments, was passed:

WHEREAS, It is proposed that the next session of the National Grange shall be held in San Francisco, provided the expense of said session to the National Grange shall not exceed the expense of the seventh annual session at St. Louis, in proportion to the membership.

Resolved, That the Executive Committee and our worthy Brother Hamilton be directed to make suitable arrangements to effect the above purpose to the end that the grand chain of fraternal love commenced on the Atlantic, in the beautiful "City by the Sea," shall be eternally welded and perfected at the "City of the Golden Gate," on the Pacific shore, next November. Provided that, in the judgment of our Executive Committee, the meeting at San Francisco shall not be injurious to the interests of the Order.

Just before the close of the session, appropriate and feeling remarks were made by Bro. Smedley, of Iowa, who closed by offering the following resolution:

Resolved, That the National Grange, at this closing hour of its session, desire to return our heartfelt thanks to the Citizens of Charleston for their unwearied and continued kindness to us during this session, and we assure them that we shall carry to our homes feelings of gratitude and kindness which time shall never efface.

Bro. Clark, of Oregon, moved that the resolution be adopted by a rising vote, when all the members rose to their feet.

The Grange closed in due form at 2 P. M.

SANTA CLARA GRANGE.—The harvest feast, Saturday, February 27th, was well attended. Bro. C. J. Cressey's speech elicited earnest attention. Additional subscriptions were made to the stock of the Business Association, and the Wheat Shippers' Relief Fund.

SANTA CLARA COUNCIL.—We are requested to state that the meeting of the Santa Clara Council will take place on Monday, March 8th; the date given in last week's Press being incorrect. It will be at the San José Grange hall, commencing at 10 A. M.

From the Granges.

Woodville Grange, Tulare County.

This Grange installed its newly elected officers on Jan. 7, 1875. The Secretary, Bro. John Stewart, writes us as follows under date of Feb. 8:

"We conferred the first degree on a class of four Sisters last Saturday. I think from the present prospects we will be blessed with a liberal harvest. There is a great deal of outside farming here this season, but we are hothered considerable with stock. There are some snits for damages pending before our Justice, Bro. J. A. Slover."

Paradise Grange.

Mr. B. F. Riley, Master of Paradise Grange, Paradise valley, Humboldt county, Nevada, writes us as follows concernin' this Grange: "Our Grange is prospering and alive. We are going to build a hall and store this spring."

Elk River Grange.

EDITORS PRESS:—The Elk River Grange is in a prosperous condition; its members manifest considerable spirit in the right direction. Our new set of officers seem to be the right kind of material in the right place. We are but few in numbers, but full of ardor in the good works of our Order. Fraternally, THEO. MEYER.

Kiwelatta Grange.

EDITORS PRESS:—At a regular meeting of Kiwelatta Grange No. 88, P. of H., January 30th, 1875, the officers for said year were duly installed. The ceremonies were conducted by W. D., W. H. Arbogast.

FRANK MCPHEE, Sec'y.

Arcata, Humboldt Co., Cal., Feb. 15th, 1875.

[For list of officers see notices of Grange Elections.]

Santa Cruz Grange.

EDITORS PRESS:—We number some 83 members, and though scattered over considerable space, have a general attendance even from the most distant ones. The mental action of the Grange is somewhat exercised now in the adoption of some practical plan for the initiation of a "Grangers' Store." We have arrived at nothing definite as yet, but hope gets brighter. This is a desideratum here, as almost everyone who comes even on a visit comes to the conclusion that prices of almost every article of use and consumption run higher than in the majority of other places.

In conclusion allow me to express my honest conviction that the Santa Cruz narrow gauge railroad, when finished and in successful operation, will have a powerful tendency to lift Santa Cruz out of the "mud," and, indirectly, the whole county; though many do not see it in that light, and are fighting it as they would a deadly enemy, and it may be said almost Quixotically, for all the Don Quixote's are not yet dead, and Cervantes in that character, portrayed elements of human nature that it will exhibit to the latest posterity.

THOS. PICKINGTON, Sec'y.

Santa Cruz, Feb. 14, 1875.

Lodi Grange.

EDITORS PRESS:—On the 25th of January Deputy Wolfe of this district, assisted by Bro. Overhiser of Stockton Grange, installed our officers elect for the ensuing year. Their wives accompanied them. Bro. O. spoke for a short time on the advantages of insuring in the Grangers' Insurance company.

MRS. NELLIE CROUCH, Sec'y.

Lodi, Feb. 15, 1875.

Evening Star Grange.

EDITORS PRESS:—The newly elected officers of this Grange were duly installed January 26, 1875, by E. Hallett, Deputy for Butte county. The crop prospects never looked better in this section of country at this season of the year than it does now. Farmers' faces all wear a smile as they look over their broad fields of wheat, and we are looking forward to the heaviest yield we have ever had in this part of the country.

A. M. WOODRUFF, Sec'y.

Nelson, Feb. 20, 1875.

Saratoga Grange, Santa Clara County.

EDITORS PRESS:—I have been ordered by our Grange to notify you that our installation of officers has taken place. Our Master is Willis Morrison; Treasurer, Wm. Cox (re-elected); Secretary, Jennie M. Farwell (re-elected). Knowing you need this for your directory, I send them. We are getting along slowly, hoping to do better this coming year.

JENNIE M. FARWELL, Sec'y.

Saratoga, Feb. 25th, 1875.

Upper Lake Grange, No. 109.

EDITORS PRESS:—Our Grange is getting along finely; had the best meeting yesterday we ever had. I tell you, a real live lecturer in this Grange will make it interesting and stir up the members. Our Lecturer, Brother Lyon, runs the literary part without help. He says: "Brother A. will read an essay or write on such a subject at our next meeting. Sister B. will give the Grange her experience in cooking at our next meeting; and I don't want either of you to fail, for this thing must be done." And done it is. And after the Brother and Sister have favored the Grange, he will say: "Now Brother D. what do you think. And Sister E.

what do you think." And Mr. Editor the Brothers and Sisters simply "go for them."

D. Q. MCCARTY, Sec'y.

Upper Lake, Feb. 14, 1875.

New Salem Grange, Tehama County.

The Secretary of this Grange writes as follows: The New Salem Grange was organized last May, but was nearly at a stand still all last summer. This winter it revived, and at the present time it is in splendid condition, numbering 29 members.

Petaluma Grange.

EDITORS PRESS:—A very full, special meeting of Petaluma Grange was held on the 6th instant. The Grangers' Business Association and other co-operative schemes were as fully discussed as time would admit. L. W. Walker, G. D. Green and W. W. Chapman were elected delegates to the State convention at San Francisco.

F. PARKER, Sec'y.

Stockton Grange.

Bro. J. G. Gardener attended the harvest feast at Stockton on Saturday last, and reports a full attendance and a good time in every respect. And the same thing occurs as regularly as the fourth Saturday of the month comes around. There is no let up on the quality of the feast or the jollity attending it. The ladies set a feast at noon on every other Saturday, which furnishes the farmer with a pleasant substitute for dinner.

Etna Grange, No. 219.

EDITORS PRESS:—I return Directory with changes for 1875 marked. The Fort Jones Grange, No. 220, disbanded and surrendered their charter for the purpose of consolidating with the Etna Grange, No. 219; we voted to receive them *en masse*. The officers of the consolidated Grange stand as follows: We meet now at Etna, but are building a new hall at Crystal Creek, a central location in the valley.

L. S. WILSON.

Fort Jones, Feb. 22, 1875.

[*The names of officers will be found among the Grange Election returns.—EDS PRESS.]

Election of Officers.

POINT TIMBER GRANGE, CONTRA COSTA CO.—Bro. J. E. W. Carey, Secretary of Point Timber Grange, writes us that the following newly elected officers were duly installed on Saturday, February 13th: H. C. McCabe, M.; R. R. Veal, O.; R. G. Dean, L.; M. L. Carey, S.; C. Carlton, A.S.; W. C. A. Richardson, C.; Thos. McCabe, re-elected, T.; J. E. W. Carey, re-elected, Sec'y; R. N. McEnty, G. K.; Sister Olive Veal, Ceres; Sister L. J. Willis, Pomona; Flora; Auyette Richardson, L. A. S.

KIWELATTA GRANGE, HUMBOLDT CO.—D. D. Averell, M.; A. Foltz, O.; Jos. Nellist, L.; W. N. Campbell, S.; D. H. Towers, A. S.; L. F. Meacham, C.; G. B. Kneeland, T.; F. McPhee, Sec'y; D. F. Dyer, G. K.; Mrs. L. J. Armstrong, Ceres; Mrs. E. P. Dodge, Pomona; Miss Emma Falor, Flora; Mrs. M. E. Nellist, L. A. S.

ETNA GRANGE, No. 219.—L. S. Mathews, C. L. S. Wilson, Sec.; John M. Conaughy, T.; J. M. Wolufony, G. K.; Mrs. M. M. Shelly, Ceres; Mrs. A. A. Green, Pomona; Mrs. M. M. Wilson, Flora; Mrs. M. E. Walker, Stewardess; Hon. J. W. McBrille, M.; J. T. Moxley, O.; H. C. Cory, L.; Chas. Hovington, S.; N. Drew, A. S.

EVENING STAR GRANGE, No. 194.—A. D. Nelson, M.; T. C. Nelson, O.; A. K. Baker, L.; Wm. Downing, C.; W. E. Pearson, S.; I. D. Williams, A. S.; C. H. Stores, T.; A. M. Woodruff, Sec'y; T. C. Barnes, G. K.; Mrs. A. M. Woodruff, Ceres; Mrs. L. J. Jones, Pomona; Mrs. Charles Hamond, Flora; Mrs. T. S. Launder, L. A. S.

PLAINSBURY GRANGE, No. 169. P. Y. Welch, M.; Mrs. N. B. Stonerod, O.; J. C. C. Russell, L.; R. M. Burchell, C.; R. Earl, S.; Jno. A. Barker, A. S.; H. E. McClure, G. K.; T. J. E. Lee, Ceres; Miss Clara Anderson, Flora; Mrs. D. A. Furman, Pomona.

Farmers' Fire Insurance Association.

At a recent meeting of the stockholders of the Cal. F. M. Fire Insurance Association, it was deemed advisable, in order to meet the demands and requirements of the increasing business of the association, that the whole capital stock of the company should be paid up. A meeting of the Directors was accordingly called and the assessment levied at this meeting has been paid in. The capital stock will be increased as the business of the association expands.

The basis of this association is manifestly a sound one, and its affairs are in the hands of careful, practical, competent men. Its outlook is clear and promising, and we are pleased to note unmistakable evidence that it has the good will and confidence of the farming community generally.

THE MONTHLY DIRECTORY.—This being the first week in the month, our readers will no doubt expect to find in the present issue the directory for March. We have concluded to defer its publication until the last Saturday in the month, when we shall issue it in the form of a supplement.

ATTACHED TO HIS GRANGE.—Bro. I. A. Wilcox, has resigned his position as Secretary of the Santa Clara Grange on account of being called to the East where he expects to remain for some time. He writes us as follows under date of February 24th: I shall have the RURAL PRESS sent to me so as not to lose the history and doings of the times. It was almost like breaking up house-keeping to give up my hooks, and I shall miss the meetings of my Grange, as I never have been absent since we organized. I think I have received more than twice the benefit than those who have only attended half the time. Fraternally yours, I. A. WILCOX.

A FAITHFUL WORKER FOR THE GRANGE.—The North Western Farmer, besides being a good agricultural paper and constant friend to all industries, is one of the most faithful workers in the broad field of labor in which our Order is engaged. While the Order is "spotting" its enemies let it stand by its true friends.

WILL STILL ATTEND TO SALES.—We are authorized to state that the State Agent, J. G. Gardner, will still attend to sales of wheat, wool and other produce, until the Business Association is in operation.

THE GRANGERS BUSINESS ASSOCIATION will meet on Tuesday, March 9th.

General News Items.

CHOKED TO DEATH.—A singular and very sad accident occurred near Belmont on Friday, of last week. A child of Mr. Newhall, a little boy only two years and a half old, was out searching for eggs. As he was absent for some time his brother was sent to look for him, and was horrified to find the child in the stable dead, with his neck tightly jammed between two of the upright rails of a manger. The inference is that the child in his search climbed up on the manger, and missing his footing in reaching out, fell with his neck between two of these bars, which converge toward each other at the base, and was choked to death. The feelings of the bereaved mother were indescribable. Mr. Newhall is a brother of H. M. Newhall, the well known San Francisco auctioneer, and is also an esteemed member of the San Mateo Grange.

FRIGHTFUL ACCIDENT IN A CHURCH.—A frightful accident occurred at St. Andrew's Catholic church, in New York, on Thursday evening, of last week: While Rev. Father Carroll was preaching and about half through the sermon, the ceiling over the right gallery was crushed in by the fall of the brick wall of an adjoining building. The church was quite crowded, and a stampede followed. The firemen and police soon arrived and succeeded in allaying the excitement. Four persons were crushed to death during the rush for the doors. Their bodies were at the foot of the gallery stairs. Three others were also found dead and 71 wounded.

FATAL RAILROAD ACCIDENT.—On Saturday morning last week Charles A. Moore, of Ophir, was killed by falling from the train on which he was working as brakeman. The accident occurred about one o'clock in the morning, and just as the train stopped at Summit Station to take water. He was found on the track, lying on his face, under the car on which his lantern was standing. One pair of trucks had passed over his body just below the shoulder, and one wheel was standing on him when he was found by conductor Allen, as he was passing along inspecting the rear end of the train.

KILLED BY A NEEDLE.—A little girl in this city, while leaning over a window sill, a few days since forced a needle into her chest. In attempting to remove it herself it broke, and before a physician arrived the point had worked its way under the breast bone and could not be found. She died the next day, and the needle was found in her heart. It is wonderful how such a sharp pointed instrument will travel about in the flesh when once fairly imbedded therein.

PROSPECTS FOR A DEFINITE REPUBLIC IN FRANCE.—A Herald cable special from Versailles says there is now a fair prospect of a Constitutional Republic. The Monarchists are determined to have either a throne or war, but the Republicans have formed a complete and impregnable union in favor of a peaceful Republic. They believe a Republic alone means peace.

POSTAL CHANGES FOR CALIFORNIA.—POST OFFICES ESTABLISHED.—At Cinnabar, San Benito; Geo. W. Chick, postmaster. At Fountain Springs, Tulare county; Moses Davis, Postmaster. Postmasters appointed: J. F. Sperry, at Big Trees, Calaveras county; W. S. Whitaker, at San Simeon, San Luis Obispo county.

ENOUGH TO KEEP HIM FROM WORK.—King Alfonso's allowance has been fixed at 28,000,000 reals—that is \$3,500,000 which will, no doubt, prove a real comfort to him, and ought to procure him food, lodging and clothes of a superior kind.

OPPOSITION TO THE HAWAIIAN TREATY.—From the expression of prominent Senators, it is believed that the Hawaiian reciprocity treaty will meet with much opposition when it comes before the Senate for action, and there is a strong probability of its rejection.

LOCOMOTIVE WORKS DESTROYED BY FIRE.—The Cliff Locomotive works at Clifton, Penn., were burned on Saturday morning of last week, with the valuable machinery, three new engines, etc. Loss over \$500,000; insured for \$200,000, chiefly in New York.

SUDDEN DEATH OF A NOTED CLARINET PLAYER.—On Sunday evening last, James R. Kendall, an old and popular clarinet player of the California theatre orchestra, dropped instantly dead in the music room of the theatre. As he entered the music room he hung up his hat and overcoat, and saying "Good evening, gentlemen," to those about him, wheeled about and fell to the floor a corpse. Physicians were summoned and several rushed in, but Kendall was beyond aid—he died instantly as he fell.

RESIGNATION OF GOVERNOR BOOTH.—Newton Booth filed with the Secretary of State his resignation of the office of Governor, and left for Washington on the overland train of Sunday.

Industrial Items.

THE pottery business has been carried on successfully for a number of years in Antioch and certain parties have recently inspected the region with a view to enlarge the facilities for manufacture in this branch of trade. The Marsh creek soil is found suitable for making fire bricks and that branch of business will also be prosecuted largely during the coming summer. A stratum of clay has also been struck in the Lincoln coal mines, pronounced of excellent quality for the manufacture of first-class pottery, and there is talk of establishing a factory to work it up for vases, jars and other useful and ornamental fabrics.

TOBACCO AT ANTIOCH.—Gilroy is not going to enjoy all the advantages arising from the cultivation and manufacture of tobacco. A company has been formed at Antioch to prosecute the same pursuits. The Ledger says there is a large body of land at the mouth of Marsh creek, supposed to be eminently adapted to the growth of tobacco. It asserts that wheat, barley, grapes, other fruits, broom corn and canary seeds, have been produced in this vicinity, and that there is no good reason why tobacco might not be raised on the land as well.

FURNITURE MANUFACTORY.—The West Coast (Kimball) furniture company employ 250 men, and run until 10 o'clock at night on the furniture order of the Palace Hotel, at which rate it will take until the 30th of June next to complete the order. They have contracted for 60,000 pounds hair and 12,000 pounds geese feathers, to make the beds and pillows for the hotel.

PROSPECTS FOR A PANAMA CANAL.—All the news which reaches us from Panama is favorable for a good route for a ship canal across that portion of the Darien Isthmus between Chagres and Panama. Every Californian will rejoice if a ship canal, connecting the Atlantic and Pacific can be constructed over the beautiful tropical country contiguous to the Panama railroad.

INDUSTRIAL OUTLOOK.—Two additional woolen mills, one at Petaluma and the other at Knight's Ferry; there will be a larger area of cotton and sugar beets planted than ever; a cotton factory is in contemplation, and in every respect the outlook for the industrial prosperity of the State is encouraging beyond any period in its history.

THE Eagle paper mill on Brush creek, near Ukiah, is now in full operation, turning off about 150 reams of wrapping paper per day. They propose to commence the manufacture of newspaper about the 1st of May.

THE Cornell Watch Co. are now under full headway. The business is a great success, the orders exceeding their ability to supply. They employ a great many girls.

It is reported that the owners of the "Great Eastern" are contemplating the project of turning the ship into an immense hotel, and sending her to the Centennial Exposition.

BY WATER.—The woolen mill at Knight's Ferry will be run by water power. We hope ere long to see many of our powers in the foothills utilized for manufacturing purposes.

THE Napa Plow company are running a small force building plows. About 200 plows are started to be finished by the time the active season commences again.

DAVIS & COWELL burned 12,000 barrels of lime at Santa Cruz during the month of December; the largest winter month's work ever turned off by them.

ANOTHER ROLLING MILL.—It is now pretty well established that we are to have another rolling mill either at Sacramento or San Francisco.

NEW REDUCTION WORKS.—R. M. Fryer & Co., of New York, are erecting reduction works at Nevada City, for the purpose of reducing all kinds of auriferous ores.

A VALUABLE cement ledge has been struck in the Santa Clara street cut at Vallejo. It is worth \$3 50 per ton at the factory at Benicia.

WHALING.—The whaling party at Portuguese Bend have caught eleven whales during the past three months.

THE PRISMoidal.—The Sonoma Valley prismoidal railway will be seven miles long.

G. W. APPLGATE proposes to erect an Alden fruit drier at Auburn, Placer county.

THE entire length of railway in the world is stated to be over two millions of miles.

A New flouring mill is to be erected in Salinas City.



Farm House Chat.

[By MARY MOUNTAIN.]

Beauties and Pleasures of Washing Day.

MESSRS. EDITORS:—The tiresome monotony of housework we cannot evade or deny, and to thousands of women whose lives promise to be full of that work and no other, the years forward and backward stretch like an endless Sahara, with vistas so drearily alike there seems really no advance, but a mere dead level of existence.

Now the danger will be in yielding ourselves to this dull uniformity, and assuming that we are harnessed to a treadmill whose daily grind permits no full enjoyment of social pleasure or personal freedom. If life begins to seem like Sahara, let us not forget there are beauty spots even in that dread expanse, and the wise traveler has them all in his reckoning.

So far as the house mother is concerned, it must be confessed that hands, head and heart are pretty closely tied to her business; yet she is no more thoroughly tied than are most men and women who engage in any business with sufficient earnestness to succeed.

Trying to look over the whole ground, I have seen that nearly every occupation has its share of dreary sameness; and the beautiful routine of nature is also, in its vast, harmonious way, "forever doing the same things over and over again."

With some such words I tried to comfort my discouraged little friend, who had cried out with emphatic disgust: "But to cook, and cook, and cook! To eat and eat! To wash the same dishes thousands of times! And wash Monday, iron Tuesday, bake Wednesday, sweep Thursday, scrub Friday, bake Saturday, and sew all the rest of the time! How can women live so? I'd as soon starve in a desert, and done with it."

Well, it may be something like starvation in a desert if we let this routine of labor take full possession of soul and body.

The body must submit to harness, and we may strive to wear it as lightly and easily as possible, comforting ourselves with the fact that everybody that is anybody is also in harness of some sort, and pulling along with more or less of spirit and grace. If we are to prance and curvet, or soberly grind in the domestic treadmill, let us try to understand all about it; not only the prosy doings of day by day, but the final results of comfort and beauty in the growth of a true home, with all its gentle, life-lasting associations.

And again, to comfort my little friend and other discouraged women, let us remember that the soul need not always or generally keep company with the pots and pans, or disport itself with suds alone through all the bleakness of blue Monday.

Washing day is not poetical except in the old comic song, and its regular appearance in our farm kitchen "so early Monday morning" calls for an unusual amount of patience, courage and physical strength.

The quiet Sunday rest of mind and body leaves us in excellent trim for this demand, and I have always admired the shrewdness of our Yankee foremothers in dedicating Monday to this special branch of domestic service. Who can tell us whether the habit originated with them, or how venerable may be the date of its beginning?

However that may be, the habit became so fixed that a Yankee woman felt as sure that Monday was made for washing as Sunday for preaching; and over old-fashioned washtubs there was generally a free and easy continuance of such Sunday topics as pertained to the gowns and bonnets that had the day before brightened the old "meetin' house." A little cheerful sociability or harmless gossip helps wonderfully to lighten the burdens of a hard day's work.

Even a solitary wash-day is not without its enjoyment, for while the hands are busy the mind is free to roam the world over, and we must learn to make the most of this pleasant privilege.

It would be nonsense to claim inspiration from soap-suds and all the rest of it, but true it is that with pen or pencil I never can do justice to the thoughts that come crowding and vanishing through the foam and steam of this homely toil. They are no more to be caught and fixed than are the host of soap-bubbles that shine and shiver and vanish forever.

And what famous fancy trips I take, in worlds known and unknown, and weave my web of life again, bright and strong, from childhood onward.

Old memories come swarming and carry me so far away that I cannot remember whether the clothes have boiled the exact half hour, or more or less. And this brings me to a more practical grasp of my subject.

The day need not be full or half full of discomfort to anybody if things are properly managed. Of course there ought to be a separate wash-room, but generally there is not, and the boiler must go on the cook-stove.

The woman who wakes generously on Saturday, and no more worry about food for two or three days.

I hope she also puts the soiled clothes to soak in good strong suds, to which may be added a little ammonia or borax if they are very dirty. It is not much trouble to do this when the habit is formed, and is a very great help in the washing.

I suppose the next direction (or exhortation) ought to be "Get up very early and nearly finish the washing before breakfast." But that would be preaching so much better than I practice, it will be better to begin again and say, "Take time to dress as neatly this morning as any other, or perhaps a little more so."

There, that is my secret for making Monday "tolerable" instead of a day to be dreaded. If a woman flings herself into a dirty, ragged dress, the oldest boots she can find, and leaves her hair all in a muss, it is pretty certain that her temper will soon be in a snarl, and all her affairs as unlovely as herself. My little friend may laugh at the notion of a neat and suitable dress for washing, but I only ask her to try it a few times, and see if it is not as great a help in its way as the patent wringer, or any other patent. To be suitable the dress should be rather short, and so should be all the skirts for kitchen duty.

Now if these two things are observed putting the clothes in soak and dressing neatly in the morning, the day will not be so very dismal, and when the household linen spreads its white wings on the clothes line you will be just tired enough to enjoy the low rocking chair and a good two hours of reading. That is generally my own rich reward after hard work; but when the babies were small the resting times were given more to them.

Yet I have always managed to have an oasis in the desert of washing day. And I hope every farmer's wife has a good machine or a good husband or a good son to help her over the hard lifts of this hard day, and if I say no more about the actual process of washing it is because every woman has her own "way" that seems to her best; and fixed as the ancient law of the Medes and Persians. One little convenience I learned from Faith Rochester in *American Agriculturist* and it may be new to some other woman. Carry the clothespins in a bag that has a long belt or baud to tie around the waist. This has saved me a great many steps in hanging out and taking in clothes; has probably been worth more than one year's subscription to a newspaper.

I did not intend to talk about anything so prosy as washing; in fact had another subject all "cut and dried" for this week. But your paper came up on Monday, and kitchen affairs went forward nimbly so that I could the sooner sit down by the cheerful open fire and enjoy the typographical perfections of the last "Farm House Chat," but when I got along to "My Kansas Friend" there was suddenly a strange muddling of pronouns that did not belong to me. "Her memories" had become "Our memories," and that wouldn't do; for when that famous "Border Skirmish" came off I was away here on the "jumping off place" of the continent and never in my life any nearer to Kansas than I am to-day. Then a pert little "I" had poked its way among "the grateful remembrances of the Kansas men and women," and thinks I to myself, "had better send in a vote of thanks immediately to the typo who is all too generous with his pronouns?" O, dear, I came so near doing it, but just in the nick of time restrained myself by writing up all the foregoing "Beauties and Pleasures of Washing Day."

A LADY SHOOTER.—A Lower Lake correspondent of the *Napa Reporter* has the following to say about Hiram Allen's daughter, who is a remarkably good shot: "I have often thought that I would like to give your readers a sketch of one of our Lake county notables, Miss Mollie Allen, a little maiden some twelve or thirteen years old, who has killed more game with her small telescope rifle than any other two bunters of my acquaintance. She has made \$30 bounty on squirrel tails alone the past summer; and if you choose to figure the thing up—the tails being only five cents each—you will begin to have an idea of her success in that line. At a shooting match last winter she took so many prizes that her bearded opponents ruled her out of the ring."

We find this touching paragraph floating in an exchange: If there is anything that will reconcile a man to married life, it is the knowledge that steals over him like a dream as he bursts a button off his trousers, that there is one at home who can repair the damage.

TO THE POINT.—There is one single fact which one may oppose to all the wit and argument of infidelity—namely: that no man ever repented being a Christian on his deathbed.

Brother John's Wife.

[Written for the Press by NELL VAN.]

"Oh, aunt, did you ever see such a homely creature as Brother John's wife is? A low forehead, big nose, high cheek bones, little pig eyes, and large mouth! I declare there's not a single redeeming feature in her face," said pouting Lena Hunter, with a glance at the mirror, which reflected the image of a radiant young maiden with golden hair and bright, rosy cheeks. Without waiting for her aunt's reply she continued: "and John, too, was always so fastidious about personal appearance, and made such ill-natured remarks about my friends whom he delighted in calling 'bread and butter misses.' There's Annie Chester with her large, lustrous eyes and auburn ringlets, who seemed to be his utter aversion, chiefly, I believe, because I admired her so much. Older brothers take such delight in teasing younger sisters in such a patronizing way!"

"Yes, she is well enough," he would say, "barring those staring eyes of hers, and the little red sausages all around her head." I declare I have been angry enough, aunt, to shut the door in his face more than once, when he has behaved so badly. Standing in the doorway, looking upon us as we sat together chatting over our needle-work and striking a position, with a hand upon either hip, with his head tossing from side to side, as he sung 'She's young and she's beautiful, the fairest one I know!' You can't think how aggravating it was. And now to think of his bringing home such a bundle of ugliness for a wife!"

Aunt Esther smiled good humoredly, as the petted beauty rattled on, and when there was a pause she gently said: "My dear, do you remember the day, not long ago, when Ching, the Chinese pedlar, called and displayed such an endless variety of curious things, to tempt us to buy? And how little Herbert begged mamma to buy some of the pretty things, and was so disappointed when she bought only a Chinese lily bulb?"

"Yes, aunt, an unsightly object enough it was, too. It looked like an old half decayed onion," said Lena, with energy.

Her Aunt continued: "It was placed in a glass dish of water, and in a few days glossy leaves were unfolded, while numberless roots shot down through the clear water, thus absorbing nutriment. To-day I count seven stalks of buds just opening out, and sending forth the most delicious perfume. I thought here is a lesson for Herbert. Among Ching's whole basket of treasures there was not one to be found which could compare with this living wonder. It's rapid growth has been eagerly watched from day to day by each member of the family, causing more delight than many dollars' worth of inanimate objects of rare workmanship. Cannot you, too, learn a lesson from the lily bulb, and seek for a hidden value in those persons who are not gifted with outward beauty? Your brother's wife, of whom you speak so deprecatingly is one woman in a thousand. I have known her from her childhood, and though not possessing handsome features, her expression at times is almost saintly. With warm affections, tender sympathy, charitableness and generosity, herself forgotten in the desire to do for others, hers is, indeed a noble nature. A worthy example for all to follow was the devotion of this child to an invalid mother. Never remembering her own fatigue, if she might serve her. When at length the parting hour came, her own grief was hushed in her father's presence, that she might calm his suffering. And the young brothers and sisters were also comforted and caressed. Stories were read to them and pleasant words spoken of the dear one who had gone to prepare a home for them to join her in the future. Such a being is like a shower of sunlight in any household, and in my opinion your brother John has chosen wisely. Among the gay butterflies of society where could he have found one so worthy of his honest love? And where could one be found more capable of elevating the dreaming sister Lena into an earnest, thoughtful and true woman."

Lena pressed her aunt's hand and turned away to look out upon a sunny landscape.

A few weeks after the above conversation, a chance ride in a street car, where sat a man evidently recovering from the small pox, sent Lena home with the most horrible forebodings. The dread of that disease had from infancy haunted her like a nightmare. She had been repeatedly vaccinated, but her mind never could be at rest. She was always fancying how disfigured her face would be, if ever she should fall a victim to that disease. In less than a week Lena was taken with sudden illness, and the attending physician pronounced the disease small pox.

Her mother was of a nervous, excitable temperament, wholly unfit for waiting upon the sick. Besides, her younger children required constant care, and it was not thought advisable for her to absent herself from them to become Lena's nurse. Aunt Esther came forward and offered her services, making arrangements for closing her house and devoting herself exclusively to her niece, whom she fondly loved, when John's wife, the gentle Mattie interposed, and insisted that she should be allowed to become Lena's sole attendant. She said it was unnecessary for others to expose themselves to the danger of contagion, as she had been amongst such sickness, and under the doctor's directions, with John for an assistant, all would go on well. In vain John expostu-

lated, begging her to consider his isolation and that a nurse could be procured for Lena. She was firm and not to be shaken from her conviction that this was a new duty which had come in her way. No one should wrest it from her grasp. During this tedious illness with the devoted Mattie for her sole companion, Lena began to appreciate the true beauty and worth of her new sister. Lena had also failed to impress the other with her lovable traits since the practical Mattie had observed that her personal appearance had not won the favorable regard of the petted beauty. But in the quiet sick room, the cheerful, hopeful countenance, with the winning smile, the same expression which Aunt Esther had called almost saintly, made John's wife really beautiful in Lena's eyes. How could she have ever called her a homely creature, thought she, as lying there she received daily new proofs of her sister's thoughtfulness.

"What a perfect treasure you are, Mattie, dear," said she one afternoon, when sitting up in the cushioned arm chair. "Do you know," she continued, "if it had not been for this sickness, I should never have known you at all." There was a quick affectionate glance from Mattie; then brushing aside a tear she took Lena's hand, and there followed a confession from each to the other of the fallacy of first impressions.

"I fear Mattie, dear," said the penitent Lena, "that your estimate of me was quite correct, but this sickness has been the means of teaching me more than one valuable lesson. Aunt Esther's charming simile of the Chinese lily bulb has made an indelible impression upon my mind in connection with you which cannot easily be forgotten. She said without exaggeration that you were a shower of sunshine in any home, and I have come to realize that fact for a certainty. Why has not John come to-day? I want to tell him I have discovered his secret preference for you, and more I want to tell you both together how grateful I am for this self-denying conduct on your part, to which I am indebted for my life to-day. But for you, Mattie, and your bright cheerfulness, I could not have borne the intense suffering even as patiently as you say I have."

A shadow passed over Mattie's face, as she asked meekly if Lena did strongly object to her being admitted into the family as John's wife. She protested against meriting the praise, asking such questions as these: "What is life to us, Lena, but to contribute to the happiness of others? What satisfaction could I have had in neglecting such an opportunity to serve one so dear to John's heart as yourself, even though he so unwillingly submitted to what he was pleased to call my better judgment? Now, dear Lena, let him in return reap the reward of having reconciled two hearts, both so dear to him, who might otherwise have been as strangers to each other."

The setting sun shone in upon the tearful pair as they sat holding each other's hands, both so happy in their new found love, when John stood in the doorway. Here was a picture which he for a moment hesitated to intrude upon. An upward glance from each reassured him, and bade him welcome. With an arm about each, he told them how he had longed for a day to come which should teach them to understand and appreciate each other. "Oh, Lena," he added, "beauty is a dangerous gift, unless accompanied by that inner spiritual beauty which no disease can rob us of. Henceforth, if you have lost the one, rest assured that you have gained the other, for one month's close contact with my little angel wife, here, is worth untold wealth. I have been a better man since I have known her and—well, she must say the rest. I hope she is not sorry for her part of the bargain," and that in the future our Lena will have just cause to remember the self-sacrifice and devotion of her brother John's wife," said Aunt Esther, standing in the doorway, a silent witness of a scene to her so peaceful and serene.

PARENTS, BE LENIENT.—A curious legend is related of Eginhard, a secretary of Charlemagne, and a daughter of the emperor. The secretary fell desperately in love with the princess, who at length allowed his advances. One winter's night his visit was prolonged to a late hour, and in the meantime a deep fall of snow had fallen. If he left, his foot-marks would betray him, and yet to remain longer would expose him to no less danger. At length the princess resolved to carry him on her back to a neighboring house, which she did. It happened, however, that from the window of his chamber, the emperor witnessed the novel proceeding; and in the assembly of the lords on the following day, when Eginhard and his daughter were present, he asked what ought to be done to a man who should compel a king's daughter to carry him on her shoulders through frost and snow, on a winter's night? They answered that he was worthy of death. The lovers became alarmed, but the emperor, addressing Eginhard, said, "Hast thou loved my daughter, thou shouldst have come to me, thou art worthy of death—but I give thee two lives; take thy fair porter in marriage, fear God, and love one another." This was worthy one of the greatest of princes; and also worthy the imitation of many a purse-proud aristocrat of later times.

THE discovery has just been made that Orpheus was left-handed. They have dug up at Pompeii a life-sized statue of the god, which represents him playing a nine-stringed lyre with the left hand.

A Joke in a Palace.

Amongst the artists of celebrity belonging to London in the last century was Biachio Rebecca, who was famous for his eccentricity and tricks of deception in painting. He was a great favorite with the king, and many amusing anecdotes are extant concerning him; he was indeed a kind of modern court-jester. One of his tricks at the Palace, as it concerned a piece of furniture, may interest our readers.

In one of the public apartments at Windsor two pier glasses of dimensions then regarded as extraordinary, being the largest that up to that time had been cast in any British factory, had been newly put up. To all the male and female domestics who occasionally were appointed to show the state apartments, solemn injunction had been given to be specially careful in guarding them from the remotest chance of injury, so much were they thought of and so highly were they valued.

Just before these rooms were opened, on one of the mornings appointed for the admission of the public, then specially attracted by the fame of these wonderful pier-glasses, Rebecca by stealth obtained admission to them, and, taking a wax-candle, drew on each an artificial fracture, beginning from the center of both, and throwing out radiating lines with the most realistic effect.

The chief showman, whose appointment was immediately under the lady house-keeper, entering, *ex-officio*, shortly after, to see that all was in order, caught sight of the supposed fracture, and uttered a cry of horror and dismay which at once brought the house-maids from the adjoining rooms, where they had been busy with their dusters and brooms.

"Which of you devils did this?" cried he savagely, pointing to the pier-glass which had first attracted his attention.

The women stared at the supposed damage, dumb with fright.

"Now, its no use denying it! What the devil could you have been at? What will Lady—say, do you think, when she sees it!"

"La! how shocking," exclaimed one; "Oh! how unfortunate!" cried another; and then in a breath they all cried out indignantly. "You can't lay it to me, remember."

A fiery scene ensued, in the midst of which a loud scream burst forth, and a female voice crying, "Why the other's broken, too!"

"We shall all be discharged for certain," cried one maid, wiping her tears away with the duster, and "That's flat," echoed another dismal voice.

They all stood pale as death, when—lo! his majesty entered from the queen's staircase.

The chief showman's tongue clave to the roof of his mouth, and the maidens looked to the ground, trembling and speechless. At length the former advanced, bowed, twisted his hands together like one in agony, and, gasping, pointing true tragedy style first to the glass at one end of the room, and then to that at the other.

His majesty looked at one, then at the other, frowned, said nothing, and hurriedly left the room.

The news of the calamity spread through the royal establishment like wild-fire; the very walls had tongues. The smash reached the ears of the lady housekeeper, who was at her toilet; aghast, she left her mirror, and hurried to the wreck of the mighty mirrors of majesty. Her grief and horror were terrible to witness, and she hurried to the queen.

Directly after her departure, in stole the prankish painter, and with a damp sponge and a dry doily he wiped the awful fractures clean out.

Presently, in solemn conclave met the king, the queen, and the royal family, the lady housekeeper, the lords in waiting, the equerries and the pages, all anxious to witness the fearful fractures; one of latter—an ancient one—declaring in a whisper that in all his "born days," until that "present blessed moment," he had "never heard of such a thing!"

But who shall describe the astonishment of the group of great ones when, all being prepared for condoling comments and exclamations suited to the tragical nature of such a strange occurrence—lo! each of the magnificent plates of glass were found—whole!

Such is the story told by contemporary personages of the two first really large sheets of plate-glass silvered in Great Britain.—*Furniture Gazette*.

A TURKISH BED.—A regular Turkish bed is something different from ours. There is no bedstead nor mattress, but about thirty thickly padded quilts, covered with silk or satin, laid one on top of the other on the floor, until they are about two feet deep. The sheets are invariably of silk, embroidered, and the coverlid is a marvel of gold and silver embroidery on satin or velvet. The pillows are of pink, blue, or yellow satin, covered with beautiful lace. From the ceiling hangs a large jewelled and gilded hoop, and from this rich curtains, which encircle the bed.

SCHOOL CHILDREN IN THE COUNTRY.—General Eaton, United States Commissioner of Education estimates the child population between the ages of 6 and 16 in the thirty-seven States and eleven Territories at about 10,283,000. An army of three hundred thousand teachers is needed to educate this host of future freemen.

DANGER FROM GREEN COLOR.—A Winchester, Massachusetts, lady was so badly poisoned in her face by working on a green tarlatan dress, recently, that she is likely to lose her sight.

YOUNG FOLKS' COLUMN.

California Wild Flowers.

[BY LAURA JAMESON DAKIN.]

Our California hills are drest
In the gayest Dolly Varden.
Flowers of blue and golden crest,
Scarlet, purple, and all the rest,
Just like a fairy garden.

Early and late the children hie
The beautiful hills along.
Listen to their delighted cry
At every new-faced flower they spy
Among the brilliant throng.

Here is a flower so bright and new,
Pink its leaves and deep its cup,
Prettier than the Larkspur blue,
Sweeter than Daisy or Honey Dew,
Saucy as Johnny-jump-up.

Here is Blue-bell and Old Maid's Eyes,
Stars, and Mignonettes, so sweet,
Golden Poppy and School Boy's Prize,
Indian Pink, and Child of the Skies,
All blossoming at our feet.

Pansies, Doves-foot, Princess Feather,
Gold Drops and Violets will gather,
O, what beauties you can gather!
How they glow in this sunny weather,
Like eyes of a lovely child.

O, the spring time hills are fair,
Drest in their Dolly Varden;
Sweet is the perfume of the air
Gently wooing us from all care,
Here in this fairy garden.

Boys Don't be Rough.

Some twelve years ago a beautiful little child made its appearance in a certain city. His eyes were very bright, his hair black and shining, and his features very regular. Being the only son of his parents, they looked upon him with pride and hope; and as he grew in stature, a bright intellect manifested itself, giving promise of a noble manhood.

At an early age, with book in hand, he could be seen wending his way with light and elastic step to the school room, where with joy and gloe he joined his little companions in study and play. His voice rang clear and loud, and none was more merry than he, little dreaming that those happy days were to be of so short duration. But sickness came, producing suffering most intense. Those rounded features and rosy cheeks became thin and colorless, and instead of the light step, the little crutch was heard upon the side walk; yet he was cheerful and sometimes mingled with his playmates.

Then the disease took a more alarming form, baffling the skill of the physicians and confining him to his bed. For weeks at a time he lay in one position, and then he could be moved only under the influence of chloroform, which rendered him insensible to the suffering it occasioned. But even then he had his books around him, and at intervals of comparative ease, would read them and relate their contents. At such times too he wished to see his friends, of whom he had many; but there were seasons in which his nervous system was so sensitive that the breathing of a person in the room was painful to him, and his devoted and ever watchful mother was obliged to stand listening in an adjoining room.

But after more than two years of suffering, and months of longing for a release, feeling, as he expressed it, that he was almost in heaven, nature yielded to the conflict, and his pure spirit, we doubt not, was wafted by angels to the mansions of everlasting rest.

And now, my dear boys, allow me to tell you that it is feared this suffering was occasioned by a blow upon the back, given by a playmate, playful perhaps, but none the less injurious. Will you not then be very careful what you do even in sport.—*Friend's Intelligencer*.

Wanted—An Honest and Industrious Boy.

We lately saw an advertisement headed as above. It conveys to every boy an impressive moral lesson.

"An honest industrious boy" is always wanted. He will be sought for; his services will be in demand; he will be respected and loved; he will be spoken of in terms of high commendation; he will always have a home; he will grow up to be a man of known worth and established character.

He will be wanted. The merchant will want him for a salesman and a clerk, the master mechanic will want him for an apprentice or a journeyman; those with a job will want him for a contract; clients will want him for a lawyer; patients will want him for a physician; and the people will want him for an officer.

He will be wanted. Townspeople will want him as a citizen; acquaintances as a neighbor; and the world as a friend; families as a visitor; and world as an acquaintance; nay, girls will want him as a beau, and finally for a husband.

An honest industrious boy will answer this description: Can you apply for this situation? Are you sure that you will be wanted? You may be smart and active, but that does not fill the question—are you honest? You may be capable—are you industrious? You may be well dressed and create a favorable impression at first sight—are you both honest and industrious? You may apply for a "good situation"—are you sure that your friends, teachers and acquaintances can recommend you for all these qualities? Oh, how you would feel, your character not being thus established, on hearing the words "I cannot employ you!" Nothing else will make up for the lack of these qualities. No readiness or aptness for business will do it.

GOOD HEALTH.

How to Live Ninety Years.

"With a good appetite three times a day, delicious sleep, and not an ache or a pain in the whole body, the mind all the time fully alive to what is going on in the world, and all the time in good spirits." This is said of the late ex-Governor Throop, of New York. He retired at nine, and rose at six, taking a nap in the forenoon, and sometimes in the afternoon also; breakfast at eight, dinner at one, and tea at sundown. In suitable weather he spent a greater part of the forenoon in his garden, directing his men, and assisting them, and for a short time in the afternoon was employed in the same way. He used no spirituous liquors, but took claret wine every day at dinner.

There are three things in the above narration which, if persistently carried out in early life, would do more than all others towards giving all an enjoyable old age, viz: regularity in eating, abundant sleep, and a large daily exposure to out door air.

Regularity in eating, either two or three times a day, with nothing whatever between meals, not an atom of anything, would almost banish dyspepsia in a single generation; as frequent eating is the cause of it in almost all cases, especially if irregular, and fast.

Abundant sleep and rest from childhood make nervous disease a rarity; to insufficiency of regular sleep, and insufficiency of rest, may well be attributed nine-tenths of all sudden deaths, and a premature wearing out before the age of sixty years. All hard workers, whether of body or brain, ought to be in bed nine hours out of the twenty-four, not that so much sleep is required, but rest, after the sleep is over; every observant reader knows how the system yearns for rest in bed after a good sleep, and it is a positive gain of energy to indulge in it.

Every hour that a man is out of doors is a positive gain of life, if not in a condition of chilliness, because no in-door air is pure; but pure air is the natural and essential food of the lungs, and the purifier of the blood, the want of which purification is the cause or attendant of every disease; while every malady is alleviated or cured by an exposure to out-door air. If city wives and daughters would average two or three hours every day in active walking in the open air, it would largely add to exemption from debility, sickness and disease, and would materially add to the domestic enjoyment and the average duration of life.

HYGIENE FOR THE AGED.—In one of his recent clinical lectures at Guy's Hospital, London, Dr. Habershon referred to the case of an old man who died simply from the shock produced by going out into the cold and fog, which though only an inconvenience to people generally, was sufficient to lead to a fatal result in one whose circulation had become enfeebled, and whose vital force had so nearly lost its power. Dr. Habershon also alluded to an instance of longevity of which he had been informed by a gentleman—the case being the latter's mother, who had died at the age of 102, and who, during the winter months, used to refuse to get up, saying that she was warm only in bed. To this uniform warm temperature the fact of her great age was doubtless owing, and Dr. Habershon urges that in prescribing for old people they should be advised to keep warm; and as they cannot eat much at a meal, they should take them more frequently. There are many of them also who wake up at about three or four o'clock in the morning, and it is a good plan for them to have some nourishment then; otherwise the interval between the night and morning meals is too long for their declining strength. The life of the aged may be considerably prolonged by care in these minutiae.

COUGHS AND BRONCHIAL AFFECTIONS.—Afflicted persons will find great relief, and in most cases a certain remedy, in the following prescription:

Carbonate ammonia, 30 grains; tincture cinchona comp., 1 oz.; syrup senna, ½ oz.; pargoric, ½ oz. Dissolve the ammonia in the syrup by aid of a mortar and then add the other ingredients.

Directions.—One teaspoonful half an hour after each meal, or take the last spoonful on retiring. Shake bottle before pouring.

It was written a number of years since by Dr. Edwards, one of the most eminent physicians of New York City. The object in taking after meals is to allow it to remain on the diseased parts, therefore do not take anything to remove the taste from the mouth. It will be put up by any druggist.

EATING BEFORE SLEEPING.—It is a common mistake to suppose that eating before sleeping is injurious. Not at all unfrequently does it happen that people are sleepless for want of food and a little taken when they first go to bed or when they thus awake sleepless, will generally be found more efficacious, and of course, infinitely less injurious than any drug in the chemists pharmacopie. These are the physical remedies for sleeplessness which have the best recommendation. As for the moral ones there is certainly a good deal more to be said. Perhaps the most stringent of all rules are to avoid anxiety! and "don't go to bed owing anybody a grudge!" chewing the bitter end of a quarrel is a thousand fold more injurious to repose than swallowing a whole teapot of the very greenest of green tea.

DOMESTIC ECONOMY.

How to Prepare Feathers for Use.

Make bags of coarse unbleached cloth—one to contain the geese and ducks' feathers, and the other for chickens' and turkeys' feathers. When plucking the poultry, cut off the wings first; and if not needed for dusters, strip off the feathers from the parts nearest the body, and then peel off the feathery part from the quill, but take care that no skin or flesh adheres to any of the feathers. Put the bags into a brick oven, if you are the fortunate possessor of one, and keep them there, excepting when the oven is used for baking purposes—taking them out into the wind occasionally, and heating them with a stick. When you have collected enough to fill a pillow, cut the shape you desire out of bed-ticking, and stitch it round on the wrong side with coarse, well-waxed thread, leaving a small space at the top to put in the feathers. Now lay it on a table, and rub it over on the wrong side with a piece of beeswax, just warmed a little, so that it will besmear the ticking. If you cannot obtain the beeswax, common yellow soap will do as well.

If you do not wish to use the feathers either for pillows or sofa cushions, they can be put into beds that have become a little empty. The geese and duck feathers make the best beds, but the mixed feathers will do well for cushions. If any of the skin or flesh adheres to the feather, they will have a putrid odor, which may seem to be an unsurmountable objection to their use; but if, after a family wash is finished, the bag, tied up closely at the neck, is put into the boiler of soapsuds and boiled a few moments, moving it about with the clothes stick, and lifting it up and down and squeezing it out a few times, and is then taken out and hung in the air, and shaken hard, for several days, when the feathers become dry they will be light and free from any bad smell; and they can now be put into the oven, and thus kept from mow and be always ready for use.—*Country Gentleman*.

FRENCH CREAM CAKE.—Beat three eggs and one cup of sugar together thoroughly; add two tablespoonfuls of cold water; stir a teaspoonful of baking powder into a cup and a half of flour; sift the flour in, stirring all the time in one direction. Bake in two thin cakes, split the cakes while hot, and fill with prepared cream in the following manner: To a pint of new milk, add two tablespoonfuls of cornstarch, one beaten egg, one-half cup of sugar; stir while cooking, and when hot put in a piece of butter the size of an egg; flavor the cream slightly with lemon, vanilla or pineapple.

HOW TO USE CHLORIDE OF LIME.—Eckstein, a technical chemist of Vienna, after comparative tests with the other disinfecting agents, recommends chloride of lime as decidedly the best for water closets, cesspools, etc., and attributes its efficacy and its rapid action in decomposing hydrogen compounds, such as ammonia, sulphuretted hydrogen, etc. He regards as the chief objection to its general use, its unpleasant effect on the organs of respiration, and states that this can be remedied, and its action regulated, by enveloping it in a bag of parchment paper, which acts osmotically, and is decomposed slowly by it.

WHY BROWN OR RAW SUGARS ARE NOT GOOD FOR PRESERVING FRUIT.—Raw or brown sugars generally contain a certain proportion of glucose, a fermentable non-crystallisable sugar, which is a source of great trouble in fruit preserving. Sugar to be used for this purpose should be in crystals, as that form precludes the possibility of any impurity being present. Loaf-sugar may be used with advantage, as being free from the impurities mentioned, and not liable to ferment.

DOOR-MATS.—Mats should be laid outside of all doors, to stop the currents of cold air that come from under them; and they should fit the doors exactly, for if they do not they are rather more ornamental than useful. The large, square mats are now seldom used, excepting in houses where large and handsome doors demand them; but the narrow mats, only twelve or eighteen inches in width, look best in limited space, and serve the requisite purpose.

ORANGES, BANANAS AND COCONUTS.—Cut oranges through the sections into handsome slices. Place a layer in a high glass dish. Sprinkle the orange with fine sugar, and a layer of grated cocoanut; lay thin slices of banana on this, sprinkle cocoanut, then another layer of orange, sugar, cocoanut and banana until the dish is full. Place on ice for an hour before serving. From "Choice Receipts."

FURNITURE POLISH.—An excellent furniture polish is made of ten cents worth of beeswax placed in a tin cup and melted in a hot oven. Into this pour two ounces of turpentine and let it stand to cool. Apply it briskly to the furniture with a woolen rag, and give it a finishing rub with an old silk handkerchief. This polish is almost equal to a coat of varnish.

TO PRESERVE BUTTER.—Take two parts of the best common salt, one part of loaf sugar and one of saltpetre; beat them well together. To sixteen ounces of butter thoroughly cleansed from the milk, put one ounce of this composition; work it well, and put it down in earthenware jars when cold and firm. It should be kept from the air and not used for a month.



A. T. DEWEY, W. B. EWER, G. H. STRONG, J. L. BOONE
PRINCIPAL EDITOR..... W. B. EWER, A. M.

OFFICE, No. 224 Sansome street, Southeast corner of California street, where friends and patrons are invited to our SCIENTIFIC PRESS, Patent Agency, Engraving and Printing establishment.

SUBSCRIPTIONS payable in advance.—For one year, \$4; six months, \$2.25; three months, \$1.25. Remittances by registered letters or P. O. orders at our risk.
ADVERTISING RATES.—1 week, 1 month, 3 months, 1 year
Per line..... 25 .80 2.00 5.00
One-half inch..... 1.00 3.00 7.50 24.00
One inch..... 2.00 5.00 14.00 40.00
Large advertisements at favorable rates. Special or reading notices, legal advertisements, notices appearing in extraordinary type or in particular parts of the paper, inserted at special rates.

No Quack Advertisements inserted in these columns.

RURAL PRESS.

OLD SUBSCRIBERS and other reliable persons are authorized to get up clubs of five or more subscribers for this paper at \$3 per annum for each name. Our terms for all subscribers are cash in advance. Postage will be prepaid by us after January 1st, 1874. The papers will be addressed singly to each individual. Regular subscription price \$4. Sample copies free. Let those who will work for the Rural Press in mind that they will confer a lasting benefit on new subscribers, besides improving their own talents by business practice. Try your hand and report at once. We offer all a chance. You do not know what can be done till you try!

SAN FRANCISCO:

Saturday, March 6, 1875.

TABLE OF CONTENTS.

GENERAL EDITORIALS.—Cheap Land for Alfalfa; The Great Big Bear of Mezel; A Treatise on Hops; Black Walnut, 145. The Hair Worm, or Horse-Hair Snake, 146. Departure of Prof. Bessey; Tile Draining; A Word to Jute Growers; A Welcome Return; A New and Wonderful Fertilizer; Further Enquiries from Abroad, 152. Patents and Inventions, 156.
ILLUSTRATIONS.—The Great Big Bear of Mezel, 145. Economy of the Vegetable Kingdom, 153.
CORRESPONDENCE.—Los Nietos.—Review of G. K. M.; The Rattle Weed in Solano County; Acacia Gold; Printing and Block Making, 146.
USEFUL INFORMATION.—Manufacture of Oatmeal; A Word of Caution; Imitation of Marble that Can be Polished, 147.
PATRONS OF HUSBANDRY.—Progress of the Patrons in California; New Granges; Meetings; Etc., 148-9.
HOME CIRCLE.—Farm House Chat; A Lady Shoots; Brother John's Wife; Parents be Lenient, 150. A Joke in a Palace; A Turkish Bed; School Children in the Country; Danger from Green Color, 151.
YOUNG FOLKS' COLUMN.—California Wild Flowers (Poetry); Boys Don't be Rough; Wanted—An Honest and Industrious Boy, 151.
GOOD HEALTH.—How to Live Ninety Years; Hygiene for the Aged; Coughs and Bronchial Affections; Eating Before Sleeping, 151.
DOMESTIC ECONOMY.—How to Prepare Feathers for Use; French Cream Cake; How to Use Chloride of Lime; Why Brown or Raw Sugars are not Good for Preserving Fruits; Door-Mats; Oranges, Bananas and Cocoanuts; Furniture Polish; To Preserve Butter, 151.
POPULAR LECTURES.—Economy of the Vegetable Kingdom, 153.
HORTICULTURE.—Landscape Gardening—No. 3, 153.
AGRICULTURAL NOTES from various countries in California, 156.
MISCELLANEOUS.—Irrigating in California; Agricultural Items; A Beautiful Art, 147. General News Items; Industrial Items, 149. Calistoga Real Estate Company; State Board of Agriculture, 156.

Departure of Prof. Bessey.

We give to-day another of Prof. Bessey's interesting and valuable lectures, reported and illustrated for the Rural Press. California is greatly indebted to this gentleman for the marked interest which his lectures have aroused in economic or practical botany. Prof. Bessey expresses extreme gratification with everything connected with his visit to our State. The gratification is certainly mutual; for besides the large number of listeners to his lectures he has many warm personal friends in California, whose esteem for the affable gentleman is as high as their admiration of the able lecturer. On Saturday evening, March 27th, Prof. Bessey delivered the last lecture of his course in this city, departing on the following day for his home in Ames, Iowa.

We have on hand several of these lectures awaiting their course of publication in the Rural Press. We have the additional satisfaction of stating that we have a pledge from Prof. B., that he will contribute an occasional article to our paper.

ON FILE.—"The Rattle Weed," F. J. E. W.; "Gophers and Alfalfa," E. B.; "Inquiries about Alfalfa," etc., Mrs. C. W.; "Land in Contra Costa and Alameda," Granger.

ANOTHER TIMELY RAIN.—From many portions of the State come reports of a liberal rainfall on March 2d. Late sown grain has been much benefited.

Tile Draining.

It is with extreme pleasure that we note the increased attention given to the subject of tile draining. As one of the many indications of this increased interest, we give the following from a letter just received from a farmer of Santa Rosa:

"As the subject of tile draining has of late been much discussed by the farmers of this community, I would ask if you or any of the readers of the Press can give us any information as to the result of practical experiments with tile drainage, the publishing of which would be of much interest to a great many of us."

We have had some experience in draining, having used different materials and methods for this purpose. The inverted "V" formed by nailing two narrow boards together in the shape of the letter V; the box drain both with and without bottom, using 2x4 scantling for sides and planks or slabs for covering; the stone drain forming a channel, with cobble stones for sides, and covering with flat stones, and the brush drain formed by simply placing in the ditch brush from forest or fruit trees, and covering with nothing but the earth taken from the drain; and we have also had some experience in tile draining.

All of the above named methods have their advantages and all with the exception of the tile, have their disadvantages. The V-shaped board drain is inexpensive, the material costing but little and can be laid down rapidly; and while it lasts it works thoroughly; but it is liable to collapse. The box drain is more expensive both in material and in putting down, but it lasts longer than the other and is a good drain; still it rots with age, and though the wood may last under ground during a long period of years, there will be some defective spots that will prove fallible, and these will yield to the rot, break in, and clog up the whole drain. The stone drain, where stone is an encumbrance on the land, is inexpensive, and is an aid in getting rid of the surplus stone and is, of course, indestructible; but it is impracticable where stones are not abundant, and it furnishes a permanent residence for burrowing animals. The brush drain is the cheapest of all; being a mere substitute for a drain. It is most liable of all drains to harbor moles, squirrels, etc.

But tile answers all draining purposes, and possesses no disadvantages except its expense; but as opening and covering is the principal item in draining, it is poor economy to lay imperfect or perishable conductors. First-class tile can be bought in San Francisco, at the following prices: 2 inch, \$6.50; 3 inch, \$8; and 4 inch, \$12 per 100 feet. This includes the couplings or "sleeves," one of which goes with each joint. The tile is in pieces one foot in length, and the sleeves about three inches; the diameter of the latter being sufficiently large to admit of the ingress and egress of water; but not large enough to admit even the smallest of burrowing animals. This obviates the necessity of making a close joint between the lengths of tile. An admirable thoroughfare is thus provided for the water, allowing in irrigating a regular distribution of water, and in draining taking it up all along the route. When laid below the reach of the plow this becomes an effective mode of underground irrigation; favoring a wide diffusion of water, and this, with the indestructible material of which it is formed, renders the means of irrigation permanent, and at the same time materially obviates the necessity of irrigation. These open joints are equally beneficial in draining land; opening all along their course innumerable avenues for the escape of water and for the circulation of the fertilizing gases contained in the subsoil.

The value of tiles for draining is therefore, unquestioned. Draining is a natural accompaniment of progressive agriculture; and where it is most practiced, and where the subject is best understood, tiles have become the standard material. We are, therefore, pleased to note indications of a growing interest in this matter; for draining must inevitably increase here, as elsewhere, as land becomes more valuable. And in this connection it is extremely satisfactory to know that we have within our own State, an abundance of clay of a superior quality for this purpose, and also that we already have manufactories that are producing a superior quality of tile, and at such prices as we give above.

WAREHOUSEMEN AND LIENS ON GRAIN.—A case was heard one day this week, in Judge McKee's court, in this city, which is of interest to warehousemen and farmers. Brackett Bros., farmers in Livermore valley, had procured advances in the way of seeds, sacks, cash, etc., from one Edson, a warehouseman, to the amount of \$10,000. Last fall they stored in his warehouse wheat worth about \$8,000, on which he claims his advances constituted a lien. Outside creditors attached and sold a portion of this grain, giving the Constable an indemnifying bond. Edson now brings suit against the Constable to recover the value of the grain sold, alleging that it has always been considered that advances made by warehousemen constitute a lien upon the crop when matured. Judge McKee will render a decision as soon as possible.

A Word to Jute Growers.

It is supposed that there are parties now engaged in growing jute in California. We are aware that it is as yet only an experimental crop, but we would like much to hear the result of these experiments. There are several fibers that will, undoubtedly, before many years be produced extensively in our State. These are cotton, jute, ramie, flax and hemp. The first on the list, cotton, has apparently passed the day of trial, and may safely be pronounced a success. The adaptability of soil and climate is thoroughly proven, and the means for making the best use of these natural advantages have in the main been developed. We are evidently on the right track, wanting only the experience that a few seasons will give.

There is no reason to doubt that all the other products on this list will eventually be equally successful. The growing of all of them should be fostered. Jute, however, is our most immediate need; but with this, as with some of the other fibrous plants, especially ramie, there arises a palpable want of a proper method of reducing the fiber and preparing it for the hand of the manufacturer. A gentleman of this city, Mr. G. Hunziker, No. 16 Third street, assures us that a machine is already in successful operation which reduces jute, flax, ramie and hemp in a thorough, cheap, satisfactory manner. He has brought to our office some of the jute and ramie fibers in different stages of preparation, an examination of which, with the information received from Mr. Hunziker in connection with them, conveys a very favorable impression of the merits of the machine. Mr. H. has had considerable experience, both in growing jute and reducing the fiber; his experience extending over a period of seven years. He has tested the machine referred to at the South, where jute is more largely cultivated, and where he had sufficient practical experience to warrant him in guaranteeing a successful issue to any experiments which the people of this coast may undertake.

He is not directly interested in the machine, but for the sake of securing an important point in the success of jute culture, he suggests that persons now experimenting in growing it, or who have had previous experience in it, shall send to the Rural Press such statements of the results of their experience as will afford a basis for a correct estimate of the cost of the product to the producer. If these estimates favor the growth of jute in California, this would warrant the bringing of one of the machines to this State.

The cost of the machine is about \$500. It is expected to take the plant as it is harvested, and prepare the fiber for market. We have many things to learn in connection with these fibrous plants, besides merely producing the raw material—and we are in precisely the same predicament in regard to some other products—and the matter of preparing our products for market and making markets for them, concerns even the agriculturist more at present than the growing of them. It is to be hoped, therefore, that all who can furnish any of the information alluded to above will do so.

A Welcome Return.

The charming sketch "Brother John's Wife," which we give in our Home Circle Department this week, is from the pen of one of the ladies who regularly contribute their literary mites to the columns of our paper, adding much to its attractions and usefulness. Accompanying the sketch comes a private note which, as manifesting the kindly nature of the writer, and being withal somewhat complimentary to ourselves—we mean to our paper—we cannot resist the temptation to give it in this connection.

DEAR FRIENDS OF THE RURAL PRESS:—There is nowhere on the Pacific coast to be found a weekly containing the same valuable reading matter that the Rural Press places before its readers each week. Families give it a cordial welcome, and here in Santa Cruz it is thoroughly appreciated.

The pleasant allusions to the various objects of interest to be found in our vicinity, tells of an appreciation of its natural beauty among the editorial corps.

I have thought of sending you an occasional letter for publication, but hesitate to do so lest my motives be misconstrued. Grateful for the attention so delicately expressed in receiving the paper regularly so long after I ceased to become a regular contributor, I assure you nothing will give me greater pleasure than to send you an occasional story or letter, if I may in that way pay up for past favors and cancel obligations in the future.

Sincerely yours,

NELL VAN.

Santa Cruz, Feb. 23, 1875.

MARBLEHEAD SQUASH.—Last year we raised some samples of the above vegetable, raised from seeds received from Gregory, of Marblehead, Mass., and they were so much superior to any other variety we have seen, that we think it beneficial to state the fact to our readers.

UNDER CONSIDERATION.—"Hints on Dress Reform," W. E. T.

A New and Wonderful Fertilizer.

A correspondent sends us a communication on the subject of red wood saw-dust as a fertilizer. We agree with him in the main, in his estimation of the material for mulching, though even in this respect we do not value it above many other substances used for the same purpose; but when he declares, out and out, that red wood saw-dust is a far more powerful fertilizer than the best guano, we cannot dispel the suspicion that this or something else, must have added somewhat to the fertility of his imagination, and the statement that "millions of dollars are lost to California each year, through this fertilizer," will probably require millions of years to obtain credence. If our correspondent had used the same efforts to induce our people to use this, or any other material, for mulching, that he employs to the glorification of saw-dust as a fertilizer, his labors would undoubtedly have resulted in good; for there is no country where mulching is more needed, and none in which it is practiced less. But he only alludes incidentally to mulching; and, we apprehend, the wonderful effects attributed by him to the fertilizing properties of saw-dust, were really the result of mulching.

The saw-dust of various kinds of wood is largely used for this purpose by Eastern horticulturists, and where it is obtainable it is used by farmers for stable bedding; and after having absorbed the urine of the animals, and being mixed with other manure it is highly prized as a fertilizer. In orchards, vineyards and gardens, it is extremely valuable as an absorbent and protector; and after it has served these purposes and becomes incorporated with the soil it greatly improves its quality. In this way it becomes an important adjunct to gardening and fruit growing in any locality, and would be doubly so in dealing with the hard, dry, gravelly soil of many parts of California. But, be it understood, where sawdust is used as above described, other mulching material—straw, forest leaves, garden weeds, etc., are carefully saved and judiciously used.

We do not like to go up into the millions as is the fashion in stating or conjecturing valuations, but if our friends in California will make the best use of sawdust and other available mulching material, they will be rewarded for their labor and care both immediately and permanently.

Further Enquiries from Abroad.

Among the enquiries from parties wishing to emigrate to California is one from J. Dickson Olivet, Osage county, Kansas, in answer to which we would say: The Grangers have not made any special arrangements for "assisting Kansas Grangers to get to California." They are doing all they can to relieve their immediate wants and we feel safe in guaranteeing a brotherly reception to all emigrating members of the Order, whether from Kansas or other parts. Such parties should study the Grange Directory of California, and note the address of Granges in the county and town to which they intend to emigrate, and communicate with the officers of the latter before coming here, and make themselves known on their arrival.

"Where would be the best location?" This is a vague indefinite question to ask in regard to any country, and much more so in relation to California, where there is such a wonderful variation in resources. We can, however, assure our Kansas friend that in no part of California will he encounter the objections which he enumerates against his present home. And we would further state for the benefit of all who are charmed with the resources of California, that they are only resources and can only be developed by sound judgment, hard knocks, and strict economy.

People wishing to take up homes in California should come and see for themselves; let them strike for some point, even though they do not possess all the knowledge about it that they could wish. They may not find there just the place they want, but it will at least furnish a lookout point from which they can discover a suitable home for the future. In fact, people hardly know what they do want until they come here and look about them. If a man were to construct the most perfect chart and programme of his location and subsequent operations that all available means of information would admit of, he would find it of little service here.

These general hints are, of course, intended for the benefit of those who send in enquiries of a general or indefinite character. To questions of a different character we will endeavor to furnish more definite answers.

FRESH ORANGE SEED.—A subscriber at Folsom, says: "Will you please inform me through the Rural Press where I can get fresh orange seeds, and what I would have to pay for them?" They can be obtained from any of the seedsmen advertising in the Rural Press. The seedsmen inform us that orange seed damage by drying when removed from the fruit. The best way is to procure a lot of decayed oranges. These can be procured in San Francisco, put up in tight barrels, at \$4 to \$5 per barrel.

POPULAR LECTURES.

Economy of the Vegetable Kingdom.

Sixth Lecture Delivered before the University of California College of Agriculture, on Tuesday, January 26th, by PROF. C. E. BESSEY.

[Reported and Illustrated for the RURAL PRESS.]

The Cone Bearing Plants and the Oak Family.

The cone bearing plants, *Coniferæ* form a small order of about 350 species. All are woody, varying in size from trailing shrubs to the largest trees on the globe. A balsamic fragrance pervades the family and this is often associated with valuable medicinal properties. In their distribution, they extend throughout all parts of the temperate and colder climates; occurring also to some extent in the tropics, upon mountain sides. They are of great economic importance, furnishing not only the most important woods for lumber, but also fuel, medicines, materials used in the arts and for the people in certain limited districts a considerable amount of food. In the northern hemisphere, the genus *Pinus* seems to be the predominant one in this order and in every country of this half of the globe, one or more species seem to be particularly adapted to meet the wants of civilized man. Of these, we can notice but a few.

The Scotch Fir, *Pinus sylvestris*, is found in Europe and northern Asia, forming large forests. It is very largely used for building purposes. The one referred to in English books takes the place of, or corresponds to the Redwood of California.

White Pine, *Pinus strobus*, is a tall, large tree found growing throughout the northern United States. Its wood is white and it readily works into valuable lumber. It is very largely used, almost to the exclusion of other woods.

Sugar Pine, *P. Lambertiana*, is an enormous tree of the Pacific slope, attaining sometimes the height of 300 feet, with a diameter of 20 feet. It is very similar to the White Pine of the East, but has a smaller cone. The wood is extensively introduced into our markets.

Yellow Pine, *P. palustris*, of the southwestern United States, has a dense, heavy wood that almost sinks in water and is full of resin. From the wood of this tree, by burning it with a close, smothering heat, tar is obtained. Pitch is the evaporated tar. Turpentine is a fluid obtained by making rude incisions in the bark of the tree, from which it flows. It is composed of a volatile oil and a resin. When heat is applied, the oil is driven off into a receptacle and is known as the oil of turpentine, while the residue is the well known resin, or rosin, of commerce. Another variety of Yellow Pine, *P. ponderosa*, as also the Western Balsam Fir, *Abies Grandis*; Menzie's Spruce, *A. Menziesii*; *Thuja gigantea* and California White Cedar, *Libocedrus decurrens*, are all of more or less value.

Douglas Spruce, *Abies Douglasii*, of the Rocky mountains and Sierra Nevada region; in some localities is incorrectly called White Pine. It is a large tree, of great height but slender stem, and its wood is largely used for planking, also for railroad ties, for which purpose its great durability admirably fits it. From it very good lumber is obtained, but not the very best. It lasts well, especially that taken from high regions. The tree has a peculiar cone.

The Redwood of the Pacific slope, *Sequoia sempervirens*. A large tree, sometimes attaining a height of 300 feet with a diameter of 15 feet. It has small cones; from one to two inches long, and short leaves which have somewhat the appearance of those of *Abies*. This wood, (Redwood) is the one used more largely in housebuilding. The receipts of this lumber in San Francisco, in 1874, amounting to about 87,000,000 feet, were fully two-thirds of the whole. Spruce fir, *Abies excelsa*, a fine tree, growing to the height of 100 to 150 feet in its European home. From it white deal lumber is made; from its resinous juice, Burgundy pitch is made and its branches are hoiled to aid in the manufacture of spruce beer.

Balsam Fir, *Abies Balsamea*, a native of North America, is a fine tree of small size. It produces a turpentine known as Canada balsam, used in mounting microscopic objects.

The European Larch, *Larix Europea*; is, in England and Europe generally, a valuable timber tree. From its juice is obtained Venice turpentine. This tree is also grown for ornamental purposes. *Cupressus*; valuable trees, known as Cedars. Their wood is very durable and is largely used in the manufacture of various domestic utensils, as well as for posts, piles, etc. Some of this species are used for ornamental purposes among which may be mentioned the Monterey cypress.

The Junipers and Red Cedars, *Juniperus*, are valuable for their durable wood. From *J. Virginiana* and *J. Bernandiana*, lead pencil sheaths are made. Their berries are of some medicinal value.

The Yew, *Taxus baccata*, a large tree of Europe, is noted for the great durability of its wood, specimens having been found in the ruins of Nineveh. *Pinus Pinaster*, *P. Laricio* and *P. Maritima*, all of Europe, are used on the coast of Ireland and Normandy for fixing the sands. All are more or less ornamental. This is the case with *Pinus*, *Abies*, *Cedrus*, *Cupressus*, *Thuja*, *Taxus* and *Salisburia*. Of remarkable trees, there are the *Sequoia gigantea*, the giant Redwood; the Norfolk Island Pine, *Araucaria excelsa*, a specimen of which can be seen in the yard of the San Francisco postoffice, but which is not hardy here; and the Maiden Hair tree, *Salisburia adiantifolia*, the leaves of which are especially peculiar.

The Oak Family.

Cupuliferæ; numbers 330 species, of which 280 are members of the genus *Quercus*; is mostly confined to the northern hemisphere. For timber this order ranks next to the *Coniferæ*, Fig. 1.



Live Oak—*Quercus virens*—reduced one-half.

the Oaks occupying a place second only to that filled by the Pines and Firs.

British oak *Quercus sessiliflora* and *Q. pedunculata*. These are extensively used for ship building in England; especially the first, whose

Fig. III.



Tan Bark Oak—*Quercus densiflora*—natural size. wood is very tough, heavy and durable. The bark is much used in tanning and somewhat in the manufacture of dyes. It would be an experiment worthy of trial to import from England a quantity of acorns of the first species, as in all probability the tree might be

Very Profitably Grown Here.

Quercus virens, the Live Oak of the southeastern Atlantic States, (See Fig. 1), is very valuable also as ship timber. It should be introduced.

The White Oak, *Quercus alba*, is in the United States east of the Mountains, one of the most valuable of hardwood trees. Its timber when protected from the changes in moisture is very durable and that grown on particular soils exceedingly tough. (See Fig. 2).

Quercus Hindsii, a relative of the last is one of the most common of the deciduous oaks in central California. Its wood is not of great value being too brittle.

Quercus agrifolia is the common evergreen species and abounds in Oakland and vicinity. The wood is said to be rather brittle and not well adapted to use where toughness and strength are required. A form of this or possibly of another species is used somewhat for

ship-building and it is said to give good satisfaction.

The Evergreen species in California are very variable, and much confusion still exists as to their specific limits.

The American Beech, *Fagus ferruginea*, is common east of the Mississippi valley. Its wood is heavy and dense and is much used for planes and other carpenters' tools. It is not found on this coast.

Castanea vesca, the Chestnut, furnishes a valuable lumber for cabinet work, it being light and nearly white. It is also used for inside finishing in houses. Its fruits are well known. The fruit of the European Chestnut is larger and better than that of the American variety. A species of this variety grows in California.

The Filbert, *Corylus avellana* grows in Europe. It is a shrub much like the Hazel of America to which it is very nearly related. Its fruits are the filberts of commerce. The Oak galls so largely used in inks and dyes, are produced on an oak (*Q. infectoria*) growing in Western Asia. These galls are produced by the punctures of a species of *Cynips* or gall-fly which makes these wounds in preparing a receptacle for its eggs.

Tanbark Oak, *Quercus densiflora*, (See Fig. 3), is coming considerably into use and is found

Fig. II.



White Oak—*Quercus alba*—reduced one-half.

when properly prepared to be very tough and durable, and to be admirably adapted to use in the manufacture of agricultural implements.

The Cañon Oak, *Quercus chrysolepis*, is said by those who are familiar with the tree to be almost equal to the Live Oak of the East for ship-

Fig. IV.



Canyon Oak—*Quercus Chrysolepis*—natural size. building, (Fig. 4). This species is found growing in the deep cañons of our mountains.

THE GABILAN HERD DOING WELL.—Mr. Jesse D. Carr, proprietor of the Gabilan herd, writes us under date of Feb. 22d, as follows: "My sheep, cattle and horses are all doing well. I hope to supply any quantity of pure Spanish Merino bucks this season. My 'Sixth Lord Oxford' is just two years old, and I have no hesitancy in saying that he is by far the best hull that ever came to this coast; and that he has but few equals anywhere."

ONE OF THE BEST ON THE PACIFIC COAST.—J. G. G., of Santa Clara, expresses his appreciation of the RURAL PRESS as follows: I would say this much for your paper, that I think it is one of the best on the Pacific coast as a farmers' paper.

[We would be pleased to have this gentleman write something for the RURAL.]

MORE OF THE TANNING PLANT.—Mr. L. D. Benson, of San Antonio, will please accept our thanks for sections and seeds of the tanning plant.

HORTICULTURE.

Landscape Gardening—No. 3.

[Written for the RURAL PRESS by F. P. HENESEY.]

From the tone of preceding articles on landscape gardening, it might be expected that such trees and shrubs would now be named as would be capable of imparting to the scene the effect described. It is my intention to do so when the proper time comes; but before advising as to what to plant, how to plant, and when to plant, permit me to first instruct the amateur how to take care of what he already possesses, and how to treat what he may get.

As experience is the best teacher, I shall be governed by my own experience in what I have to say. All who have about their places any amount of trees or shrubbery, will be sure to have some pruning done in the fall or spring; and in a very large majority of these cases more harm than good will be done, for the reason that men are employed to do the work who possess no judgment or skill in the matter. Pruning-knives or shears in the hands of such workmen, or in those of any inexperienced gardener, is to the shrubbery as great an abomination as a razor would be in the hands of a child. The trees and shrubs might escape injury, but it would be by accident. I could demonstrate this did space permit.

I have known men who had the reputation of being good gardeners boast of the large amount of clipping they had to perform, and were ready to claim superiority in their business on that account. With good tools in their hands, and a little ignorance of what they are about, such operators will, in a very short space of time, destroy what has required years in growing.

There is always a plain, matter-of-fact way of doing a thing when it is thoroughly understood; and the plain and proper way to prune is to cut off what good taste and a regard for the health of trees demands, and nothing more. When plants and trees are removed from the nurseries the first thing generally done is, to use a phrase thoroughly American, "to drive right in and cut them all back," without considering whether they want any cutting, and if any, how much?

There are some things which, beyond doubt, require cutting back, but only to the extent which they actually need. Under this head are included roses, lambucus, etc., or in other words, plants which have a petal as these have, and in the Eastern States these would require closer trimming than here; but these rules are intended for the Pacific coast only, and for the State of California in particular.

A safe guide, if cut you must, and one which will seldom, if ever, lead you astray, is to cut out entirely or shorten in proportion to the amount of root destroyed. I would say to the amateur and a large per centage of the practitioners as well, if you take this limit it will keep you out of mischief at the planting, as well as at the pruning season. I have moved trees twenty-five years old and over, and the knife or saw never was used on them, though the loss of roots was considerable. Others removed under similar circumstances had only the cross and unsightly branches removed which only tended to improve the appearance of the tree.

As a general thing it is quite as safe not to prune ornamental trees on being removed because trees of large size when moved and cut back, never grow to much size again. They may look thrifty, but will never attain their natural proportions, and if we consider how much vegetable nature resembles animal nature we will at once be reminded that it is not in keeping with the order of either to give the system too many shocks at one time. For instance; you move a tree, which is one shock you break out, or destroy in some way a portion of the roots, which is another shock; then you willingly and deliberately cut off some of the limbs, which is a third shock. But this is not the only harm you inflict; you open its pores to the frost to get chilled; to the sun, to evaporate its life blood, and to the rain to rot it and breed disease. Where a gardener cuts the branch from a tree because it has lost some roots, it is in my opinion, as palpable a case of malpractice as for a surgeon to remove an arm of a man because he has lost a foot.

TO "A. J." AND OTHERS.—You should always give us your names in full, in connection with your communications, especially where local grievances or other delicate matters are under consideration. We are sorry to see an increasing tendency on the part of our correspondents to use initial and fictitious signatures. Modesty is no excuse for this, as the names will be withheld whenever desired; but the names we ought to have in all cases, as a guarantee of the good faith and responsibility of the writers.

FROM WASHINGTON TERRITORY.—F. L. A. writes us from Tacoma, Pierce county, W. T.: "I must renew my subscription to your most valuable agricultural journal, commencing with the first number in February, 1875. I have a ranch three miles from Tacoma. Soil rich. I am glad you discouraged me from going down to the Navigator Islands."

DEWEY & CO.

American and Foreign

Patent Agents,

No. 224 Sansome St.

SAN FRANCISCO.

Patents Obtained Promptly.
 Caveats Filed Expeditiously.
 Patent Reissues Taken Out.
 Patents Secured in Foreign Lands.
 Assignments Made and Recorded in Legal Form.
 Copies of Patents and Assignments Procured.
 Examinations of Patents made here and a
 Washington.
 Examinations made of Assignments Recorded
 in Washington.
 Examinations Ordered and Reported by TELE-
 GRAPH.
 Interferences Prosecuted.
 Opinions Rendered regarding the Validity of
 Patents and Assignments.
 Rejected Cases taken up and Patents Obtained
 Every Legitimate Branch of Patent Agency Bus-
 iness promptly and thoroughly conducted.
 SEND FOR CIRCULAR.

LEA & PERRINS'

—CELEBRATED—

Worcestershire Sauce.



Declared by Connois-
 seurs to be the only good
 SAUCE.

Caution Against Fraud.

The success of this most
 delicious and unrivalled
 Condiment having caused certain dealers to
 apply the name of "Worcestershire Sauce"
 to their own inferior compounds, the pub-
 lic is hereby informed that the only way
 to secure the genuine is to ask for LEA &
 PERRINS' SAUCE, and see that their names
 are upon the wrapper, labels, stopper and
 bottle.

Some of the foreign markets having been
 supplied with a spurious Worcestershire
 Sauce, upon the wrapper and labels of which the names
 of Lea & Perrins have been forged, L. & P. give notice
 that they have furnished their correspondents with
 power of attorney to take instant proceedings against
 manufacturers and vendors of such, or any other im-
 itations by which their right may be infringed.

To be obtained of Messrs. CROSS & CO.,
 San Francisco.

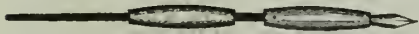
SANBORN & BYRNES.



Mechanics' Mills, Mission Street,
 Bet. First and Fremont, San Francisco. Orders from
 the country promptly attended to. All kinds of Stair
 Material furnished to order. Wood and Ivory Turn-
 ings. Billiard Balls and Ten Pins. Fancy Newsels and
 Balusters. 25v8-8m-bp

PATENT

ELASTIC PEN-HOLDER.



This Holder is furnished with a pair of elastic rubber
 air-cushions, which render a steel pen as flexible as the
 old-time goose quill pen.
 Provide an easy hold, that does not cramp or tire the
 fingers.
 Protect the fingers and desk from ink stains.
 The fingers acquire a delicate touch, that enables a
 person to obtain a beautiful hand-writing.
 The elasticity of the pen can be adjusted to suit any
 hand, by simply sliding the pen up or down.
 Sent by mail, on receipt of Seventy-Five Cents.
 JOHN S. ORNDORFF,
 Money Order Clerk,
 Feb 13-1m-bp. Virginia, Nev.

THE CLEETON COOP COMPANY,
 Of New Haven, Conn.,
 Are now prepared to furnish societies and individuals
 with
Standard Exhibition Coops
 At Reasonable Rates.
 Correspondence Solicited.

A GOOD BARGAIN.

\$500 will buy a good, pre-emption claim of 160 acres
 in Monterey County, with a good Dwelling House that
 cost more than that amount, situated one-half a mile
 from the Los Angeles Stage Road, and about the same
 distance from the line of the Southern Pacific Railroad.
 Apply to
 MRS. ROWLANDSON,
 On the Premises, San Antonio, Cal.

BREEDERS' DIRECTORY.

PURCHASERS OF STOCK WILL FIND IN THIS DIRECTORY
 THE NAMES OF SOME OF THE MOST RELIABLE BREEDERS.
 OUR RATES.—Six lines or less inserted in this directory at
 50 cts a line per month, payable quarterly.

CATTLE.

R. ASHBURNER, Baden Station, San Mateo Co.,
 Cal., breeder of Short-horn cattle. Pure Bred Bulls
 for sale, from cows of choice milking strains.

J. BREWSTER, Galt Station, Sacramento Co.,
 Cal., breeder of Short-Horn Cattle.

J. D. CARR, Gabilan, Monterey Co., Cal., breeder
 of Trotting Horses, Short-Horn Cattle, Thoroughbred
 Spanish Marino Sheep and Swine.

A. MAILLARD, San Rafael, Marin Co., Cal.,
 breeder of Jerseys. Calves for sale.

W. L. OVERHISER, Stockton, San Joaquin Co.,
 Cal., breeder of Short-Horn Cattle and Berkshire
 Swine.

PAGE BROTHERS, 304 Davis street, San Fran-
 cisco, (or Cotate Ranch, near Petaluma, Sonoma Co.):
 Breeders of Short-Horns and their Grades.

STANTON & POWERS, Sacramento, Cal.
 Breeders of Jersey Heifers and Bull Calves at low
 rates. Address L. C. Powers, Sacramento, Cal.

MOSES WICK, Oroville, Butte Co., Cal., breeder
 of Short-Horn Cattle. Young bulls for sale.

SHEEP AND GOATS.

MRS. ROBERT BLACOW, Centerville, near
 Niles Station, Alameda Co., Cal. Pure-Blooded
 French Merino Sheep for sale.

THOS. BUTTERFIELD & SONS., Hollister,
 San Benito, Cal. Importers and breeders of Angora
 Goats and Sheep.

N. GILMORE, El Dorado, El Dorado Co., Cal., im-
 porter and breeder of Angora Goats.

LANDRUM & RODGERS, Watsonville, Santa
 Cruz County. Pure-Bred Angora Goats and Cotswold
 Sheep for sale.

SEVERANCE & PEET, Niles, Alameda Co.,
 Cal., breeders of Thoroughbred Spanish Merino
 Sheep.

A. G. STONESIFER, Hill's Ferry, Stanislaus Co.,
 Cal., breeder of Pure-Blooded French Merino Sheep.

L. M. SHIPPEE, Stockton, Cal. Importer and
 Breeder of Spanish Merino Sheep, Durham Cattle
 and Essex Swine.

POULTRY.

GEO. B. BAYLEY, Cor. 16th and Castro streets,
 Oakland, Cal. Imported Brahmas and other choice
 Fowls for sale.

ALBERT E. BURBANK, 43 and 44 California
 Market, San Francisco, importer and breeder of
 Fancy Fowls, Pigeons, Rabbits, etc.

M. EYRE, Napa. Bronze Turkeys, Emden Geese,
 Choice Fowls, Pigeons, Rabbits, Ferrets.

Mrs. L. E. McMAHAN, Dixon, Solano Co., Cal.
 Bronze Turkeys now ready for sale from the best
 imported stock, also eight varieties of choice Chick-
 ens; Eggs in season can be purchased very reasonably.

Mrs. L. J. WATKINS, Santa Clara. Premium
 Fowls. White Leghorn, S. B. Hamburg, Game Ban-
 tams, and Aylesbury Ducks. Also, Eggs. 21v8-3t

Poultry Breeders.

S. H. COOK,

BREEDER OF

CHOICE LIGHT AND DARK BRAHMAS,

B. B. R. Game Bantams,

Mammoth Bronze Turkeys,

TOULOUSE, BREMEN AND AFRICAN GEESSE,

ROUEN AND MUSCOVY DUCKS.

Some choice Light and Dark Brahmas for sal
 Also, Bronze Turkeys. Address

S. H. COOK,

McDonald's, Washington Co., Pa.

Send for Price-List.

EDGORTH POULTRY YARDS.

R. F. SHANNON,

Breeder of

Light and Dark Brahmas, Silver Duckwing
 and Black Breasted Red Game Bantams.

P. O. Box 568. PITTSBURGH, PA.
 Light Brahma Eggs, \$3, gold; Dark Brahma Eggs, \$5;
 Bantams' Eggs, \$3. Orders received for Pigeons to be de-
 livered in this Fall. At Pittsburgh Show, January, 1875,
 on 4 coons fowls and 8 coops pigeons, won 6 firsts, 2 second,
 1 third and 9 specials.

R. H. PECK,

BREEDER AND SHIPPER OF

Fancy Poultry and Eggs,

From Pure and Imported Stocks.

Having been very successful as an exhibitor, I solicit
 patronage. Address, with stamps, R. H. PECK,
 Earlville, Portago County, Ohio.

OAKDALE POULTRY YARDS.

SATISFACTION GUARANTEED.

Light Brahmas, Dark Brahmas, Buff Cochins,
 BRONZE TURKEYS, ATLESBURY AND ROUEN DUCKS.

A. A. MILLER,

Oakdale Station, Allegheny Co., Pa.
 Correspondence Solicited.



LOOK!

ALBERT E. BURBANK, Import-
 er and Breeder of Fancy Fowls,
 Pigeons, Rabbits, etc. Also Eggs
 for hatching from the finest of im-
 ported stock. Eggs and Fowls at
 reduced prices. Send for Price
 List.

ALBERT E. BURBANK,
 1v8-3m 43 & 41 Cal. Market S.F.

E. M. Hively's Poultry Yards,
 YOUNGSTOWN, OHIO.

20 Varieties Land and Water Fowls,

—ALSO—
 PIGEONS AND EGGS IN SEASON.

Correspondence Solicited.

J. S. BEANER,

BREEDER OF

WHITE LEGHORNS.

My fowls are from stock that took the Special Pre-
 minium at the Boston Poultry Show in 1873 and 1874
 Also at Pittsburgh this year. Eggs \$3 per setting. My
 P. O. address is Rochester, Beaver County, Pa. Cor-
 respondence Solicited.

J. S. HALVERSTADT & CO.,

Breeders and Shippers of

HIGH CLASS POULTRY

Embracing all

THE LEADING VARIETIES,
 LEETONIA, OHIO.

Chicken Eggs, \$3; Turkey Eggs, \$3; Wild Geese Eggs,
 \$5. Letters of inquiry promptly answered. Descriptive
 Circulars and Price Lists sent on application.

WHITE LEGHORNS.

I make these fowls a specialty, and have spared no
 pains or trouble in procuring stock from the finest strains
 in the United States, and now offer eggs for hatching at
 Eastern prices from the finest fowls on the Pacific coast.
 They are small eaters, non-setters and very hardy, and for
 eggs are without a rival, being almost constant layers, and
 are truly styled the "farmer's fowl." Eggs, \$3 per dozen,
 (13) or six dozen for \$15. Securely packed to carry any
 distance, and delivered to the express on receipt of price.
 Cash to accompany order and orders taken in rotation.
 W. J. HUNT.

Sebastopol, Sonoma county, Cal.

T. A. WINFIELD,

Hubbard, Ohio.

Breeder of CHOICE POULTRY, BRAHMAS,

COCHINS, BLACK AND RED GAMES,

GAMEBANTAMS, HAMBURGERS AND POLISH.

Also, Choice collection of Fancy Pigeons. Send for
 Price-List. Eggs for sale in season, from \$3 to \$6
 currency.

C. B. ELBEN.

I make a specialty of

Fine Light Brahmas,

AYLESBURY AND CALL DUCKS

BLACK AFRICAN BANTAMS, &c.

Send for my new Catalogue and Price List.

C. B. ELBEN, Pittsburgh, Pa.

For Bleaching or Washing
 In Cold or Warm Water.

FALKINBURGH & CO'S

GRANGER SOAP

HAS NO EQUAL.

Don't fail to give it a trial, and be assured of a
 saving of money, time and labor. It speaks for itself.
 Warranted to accomplish more and do greater execu-
 tion than any other soap. It is pressed, wrapped
 and perfumed.

ONCE USED, ALWAYS USED.

Sold by the principal Grocers throughout the
 country. Manufactured by

FALKINBURGH & CO.,

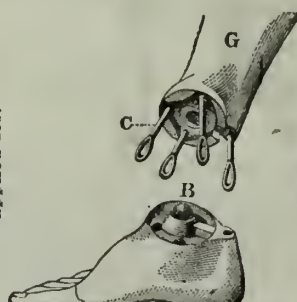
Oregon St., below Front, bet. Washington and Jackson,
 San Francisco, Cal. 4v9-10p

THE DR. BLY ARTIFICIAL LIMBS

166 Tehama Street,

COR. OF THIRD, BETWEEN HOWARD & FOLSOM

References to parties wearing
 these Limbs given when
 applied for.



THE "ANATOMICAL LEG" WITH A UNIVERSAL
 ankle motion; the above cut is its illustration. This
 artificial leg approaches so much nearer an imitation
 of the functions of nature than any other, that it stands
 without a rival among all the inventions in artificial
 legs, old or new. (The very latest announced now in-
 ventions duly considered.)
 Address

MENZO SPRING,

166 Tehama street, S. F., Cal.
 6v30-1am-bp-3m

BELLA UNION HOTEL,

JOHN F. MILLER, Prop.,

SAN BERNARDINO, CAL.

This fine hotel is situated in one of the best parts of
 the city, and the proprietor will at all times use his
 best endeavors to promote the comfort of his guests.

\$5 to \$20 Per Day at home. Terms free. Ad-
 dress G. STINSON & Co., Portland, Me.

Lands and Homes for Sale.

NINE FINE FARMS FOR SALE.

Near Middletown, Lake county, containing respect-
 ively 1600, 1100, 600, 300, 200, 130 and 80 acres. The
 most of these places contain as fine land as there is in
 California, and the home market averages twenty per
 cent. higher than San Francisco. When we take into
 consideration the quality of the soil, certainty of crops,
 the market caused by the development of mines and the
 Mineral Springs, the climate and privileges of schools
 and religious society, we are satisfied that no such in-
 ducements can be offered in any other part of the State,
 to those desiring to purchase land.
 Having examined all these places personally, we can
 give a minute description of each. Apply to

JOSEPH PETTIT,

or WM. GORDON, No. 215 Kearny Street, Up Stairs.
 Ring the Bell. 3v9-tf

FOR SALE.

HOMESTEAD AND FRUIT ORCHARD

About thirty-five miles from Stockton, containing
 three acres of land, a good house of eight rooms,
 good well, etc. Over two hundred fruit trees all in
 fine bearing order; such as Peach, Pear, Apricot, Ap-
 ple, Plum, Figs, Oranges. A fine chance and a good
 market. Price, \$1,800. Title perfect. Apply to

GEO. W. CHAPIN,

434 Montgomery street, S. F., or this Office.



5,500 ACRES

Of the best portion of the old NOMELOCKEE
 RESERVATION, in Tehama County, for sale
 very low; only five dollars per acre; one-third down,
 one-third in one year and one-third in two years, with
 interest at one per cent per month. Will be sold all
 together or in two parcels. This is one of the finest
 tracts of grazing land in Northern California; is abun-
 dantly watered by numerous perpetual springs and has
 two miles of the Elder Creek, a clear mountain stream.
 Its grass never fails from drought, and is of the best
 quality for sheep and has no clover burr. 800 acres of
 level plow land; timber for posts, fuel, etc. Enquire of
 ALLEN WILCOX, Los Angeles, or F. B. WASHINGTON
 on the tract, twenty miles west of Tehama.

FOR SALE.

In the Riverside, Now England and Santa Ana Col-
 onies, in the valley of the Santa Ana river, San Bernar-
 dino county, California, twenty thousand (20,000) acres
 of clean, rich, level, valley land, with an abundance
 of water for irrigation. There is no better land in the
 State for the orange and all other semi-tropical fruits,
 and no finer climate in the world. Inquire of W. T.
 SAYWARD, 420 Montgomery street, San Francisco; S.
 C. EVANS, Fort Wayne, Indiana; C. I. HUTCHINSON,
 314 California street, San Francisco; L. UPSON, General
 Agent, Riverside, San Bernardino county, Cal.

KIMBALL GAR, CARRIAGE

—AND—

AGRICULTURAL IMPLEMENT

MANUFACTURING CO.,

Cor. Bryant and Fourth Sts., San Francisco

The CALIFORNIA TUBULAR IRON AND WOOD
 FRAME HARROW—two, four and six-horse Iron Har-
 rows, \$60, \$70 and \$75. Wood Frame Harrow, \$10 less
 on each size than the Iron.

The Harrow has an easy seat for the Driver. The
 middle section rests on three wheels with wings hinged
 on each side.

By use of Levers the Driver in his seat can raise or
 lower the Harrow, regulating at will the depth of the
 teeth in the soil, and in the same manner fold or raise
 the wings from the ground so as to drive from the road
 to the field, saving the use of a wagon.

Our CALIFORNIA SCRAPER is also made for the
 ease of the Driver, enabling one person to ride, manage
 the team and do the work.

Is adapted for leveling and preparing the surface of
 the soil for irrigation. And for making roads, remov-
 ing dirt from ditches, cleaning barn yards, sheep corals,
 etc.

The IMPROVED EAGLE HAY PRESS—Best in use
 on this Coast. Cheap, Economical, Powerful, and easily
 repaired.

Will press bales weighing from 250 to 325 pounds,
 using less rope than any other press.

Three men with a good team of horses will bale from
 10 to 15 tons per day.

Adapted for baling wool, hides, cotton, rags or moss.

Price, \$250. Weight of press, 2,500 pounds. Please
 send for circulars.

H. K. CUMMINGS.

1858.

H. E. BAYSTON.

1875.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission
 House,

ESTABLISHED 1858.

No. 424 Battery street, southeast corner of Washing-
 ton, San Francisco.

Our business being exclusively Commission, we have
 no interests that will conflict with those of the producer.
 4v23-1y

Hooper's South End Grain Warehouse.

Japan and Townsend Streets.

SAN FRANCISCO, July, 1874.

I beg to inform you I have leased the above first-class
 Fire-Proof Brick Warehouse, now being erected by Geo.
 F. Hooper, Esq., and will be ready to receive storage on
 the 1st of August. This warehouse offers superior induc-
 ements to parties desiring to store grain and flour, as it is
 situated on the Water Front, and on the line of the O. P.
 R. R. and S. F. R. R. It is well ventilated, rat proof, and
 combines all the modern advantages and improvements.
 Yours respectfully, JOHN JENNINGS.
 Advances and insurances effected at the lowest rates.
 Storage taken at lowest current rates. 4v8-tf

Live Stock Notices.



SULTAN SECOND.

Angora or Cashmere Goats of pure blood and all grades for sale in lots to suit purchasers. Location, four miles from Railroad Station, connecting with all parts of the State. For particulars, address N. Gilmore, El Dorado, El Dorado County, Cal.

GABILAN HERD

Spanish Merino Sheep.

I have just purchased of Mr. George Hammond, of Vermont, three car-loads of Spanish Merino Sheep, (335 head, Ewes and Bucks) which, with others that I purchased last Fall, (also direct from Vermont) makes my band of Thoroughbred Spanish Merinos about 650 head.

I am prepared to sell both Bucks and Ewes, of Pure Blooded Spanish Merinos—as good as can be had in the World—so says Mr. Hammond. Parties interested will please give me a call. I am ten miles from Salinas City, Gabilan P. O., Monterey county.

J. D. CARR.

N. B.—I have also Good Graded Bucks for sale, and can dispose of some Good Graded Ewes. J. D. C.

GREAT CLOSING OUT SALE

OF THE

GLEN FLORA HERD

OF

SHORT HORN CATTLE

THE SUBSCRIBER announces that on

WEDNESDAY, APRIL 7, 1875,
the Entire Glen Flora Herd of Short-horns will be
Sold at PUBLIC AUCTION, at GLEN FLORA, near
Waukegan, Ills.

The Herd numbers over One Hundred Head, and is made up largely of Bates blood, embracing representatives of such popular families as the Gwynne, Princess, Perl, Louisa, Mazurka, Bright Eyes, Victoria, Bloom, Butterfly, Francis, Constance, Bellflower, Yarico, etc.

Among the bulls to be sold, are the 4th Earl of Oxford, and Baron Bates 3d, both substantially of pure Bates blood, and impressive and excellent sires.

Terms.—A credit of Six Months will be given on satisfactory notes, drawing interest at Six per cent. from date, or Five per cent. discount for cash in hand.

Catalogues, giving pedigrees and full particulars, furnished on application.
Address C. C. PARKS,
Waukegan, Ills.

Messrs. ELLIOTT & KENT, of Des Moines, Iowa, will hold a sale of Short-horns at Dexter Park, Chicago, on Thursday, April 8th.

Messrs. J. H. KRISTINGER & Co., of Clarksville, Mo., will hold a sale of Short-horns at Dexter Park, Chicago, on Friday, April 9th.

REEDVILLE HERD.

PROPRIETOR,

S. G. REED. - - Portland, Oregon.

I have for sale, Shorthorns of the most approved and fashionable families; among them are a few one year old Bulls of great merit, the produce of Cows imported direct from England, and sired by the renowned Mantalini bull, GOVERNOR GENERAL, 10,156, A. H. B., Vol. X, p 175. Also on hand,

AYRSHIRE CATTLE,

COTSWOLD AND

LEICESTER SHEEP,

AND BERKSHIRE PIGS,

of the highest standard. For particulars apply to

S. G. REED, Portland, Oregon,

Or WM. WATSON, Hillsboro, Oregon.

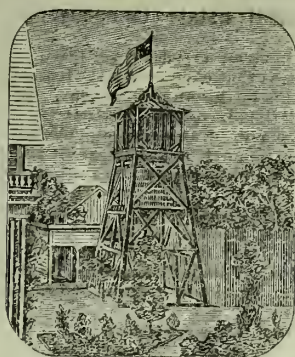
1v9-9w-1f.

12 Short-Horn Bulls,

fat and sleek, thoroughbred, just from Kentucky, at SAXE'S Stables, 35 Ritch Street, between Folsom and Harrison, two blocks from Grand Hotel. Inquire at SAXE'S Stables, or Room 32 Russ House. 3v9-3m

JACKS FOR SALE.

Two fine Jacks, one four and the other five years old, large and likely sired by old Samson, and of the best Kentucky Jinnets; the best stock of the kind in the State. Address B. C. EPPERSEN,
2y9-2m Bear Valley, Colusa County, Cal.



Parties who have been troubled with Windmills blowing to pieces and getting out of repair should by all means examine the

DEXTER,

THE ONLY PERMANENT MILL IN EXISTENCE.

It runs with lighter wind than any other; regulates itself in a gale; and has never been known to be injured by storms, although it has stood for six years on the Plains of Kansas, Nebraska, Missouri, Iowa and Illinois, where no other mills have been known to stand any length of time. All we ask is a full investigation of the DEXTER.

DEXTER MILL CO.,

OFFICE—601 California Street.....SAN FRANCISCO.

4v8-cow-3m

MANUFACTORY, FOOT OF BROADWAY, OAKLAND.

PUMPS.

"PEOPLE'S PUMP."

THE FARMERS' FRIEND.

BEST IN USE FOR HOUSE AND STOCK PURPOSES. CAN

BE USED WITH HOSE FOR WASHING

WAGONS, WINDOWS, AND

WETTING GROUNDS.

SEND FOR CIRCULAR.

DUNHAM, CARRIGAN, & CO.,

Successors to

Conroy, O'Connor & Co.,

San Francisco.

The attention of Wool Growers is continually invited to the

Thoroughbred Stock Bred and Kept on the

MERINO RANCH,

Situated at Niles, Alameda County, Cal., only five minutes walk from the station, junction of San Jose and C. P. R. R. Parties desiring to visit our ranch can leave San Francisco at 3 o'clock P. M., and have an hour at the ranch, returning on Overland train at 6 P. M. Or coming out in morning, can return to city at 11 o'clock A. M. The proprietors make the

THOROUGHbred SPANISH MERINO SHEEP A SPECIALTY,

Believing them to be the BEST SHEEP IN THE WORLD, and are constantly receiving fresh importations from Addison County, Vermont.

Our flock are all Imported Sheep, and have no superiors in the United States. We always have on hand choice young RAMS and EWES, of all ages, for sale at Reasonable Prices, giving time, if required, to responsible parties. City Office—315 California Street, San Francisco.

SEVERANCE & PEET,

Importers and Breeders of Spanish Merino Sheep.

BOWEN'S PREMIUM YEAST POWDER.

Bowen's Premium Yeast Powder.

Bowen's Premium Yeast Powder.

Bowen's Premium Yeast Powder.

Bowen's Premium Yeast Powder.

Best in the World! Every Can Guaranteed!!

For Sale in Every Village, Town and City on the Pacific Coast.

Ask Your Grocer for It.

Manuf'd by BOWEN BROS., 432 Pine St., S. F., and 11th & 12th Sts., Oakland.

RELIABLE. THE UNEQUALED.

ONE PRICE DRY-GOODS HOUSE,

42, 44, and 46, Third Street, San Francisco.

THE GOODS ARE ALL MARKED, IN PLAIN FIGURES,

PEIXOTTO & SILVERMAN.

J. M. NEVILLE.

G. H. BRYANT

NEVILLE & CO'S FACTORY

113 Clay and 114 Commercial Sts.,

SAN FRANCISCO.

BAGS of All Kinds,
TENTS, All Sizes and Descriptions.
HOSE for Hydraulic Use.
CANVAS, All Numbers.
TWINE for Sewing, Etc.

Orders Wanted at the National Employment office, 608 Market street, room 9; office crowded daily with good men and women, seeking employment; particular attention paid to country orders
25v8-3m A. BRANDT & CO., Prop's

The National Gold Medal
WAS AWARDED TO
BRADLEY & RULOFSON
FOR THE
BEST PHOTOGRAPHS
IN THE
UNITED STATES,
AND THE
VIENNA MEDAL.
FOR THE BEST IN THE WORLD.

No. 429 Montgomery Street,
San Francisco, Cal.

Geo. W. Chapin, Real Estate Agent, 434 Montgomery St., San Francisco, buys and sells Ranches in all parts of the State. City Real Estate exchanged for Country Property. MONEY LOANED. Post Office Box 1120

Grangers' Bank of California

INCORPORATED APRIL 27th, 1874.

Capital \$5,000,000, in 50,000 Shares
of \$100 each.

Directors:

PRESIDENT—JONATHAN V. WEBSTER..... Alameda
V. PRESIDENT—O. J. CRESSEY..... Stanislaus County
THOMAS McCONNELL..... Sacramento
JOHN G. HILL..... Ventura County
J. V. WEBSTER..... Alameda County
JUSTICE C. MERRYFIELD..... Solano County
J. LEWELLIN..... Napa County
GILBERT W. COLBY..... Butte County
J. P. CHRISMAN..... Contra Costa County
F. J. WOODWARD..... San Joaquin County
C. S. ABBOTT..... Monterey County
F. A. CRESSEY..... Secretary.

Office, 415 California Street,

SAN FRANCISCO. - - CALIFORNIA.

The Bank was opened on the first of August, 1874, for the transaction of ordinary Banking business.

Current Accounts are opened and conducted in the usual way, and interest at the rate of $\frac{1}{2}$ per cent per month is allowed on the minimum monthly balance.

Deposit Receipts in sums of \$50 and upward received, and receipts given for the amounts, repayable on 30 days' notice of withdrawal. These deposits bear interest at rates varying with the current rate of discount.

Deposits for Fixed Periods are received, and interest allowed at the following rates: Three months, 6 per cent.; Six months, 7 per cent.; One year, 8 per cent. A share of the patronage of the public is solicited.

California Farmers Mutual Fire Insurance Association.

Office, 6 Leidesdorff St., - San Francisco.

Directors:

A. WOLF, A. W. THOMPSON, I. C. STEELE,
I. G. GARDNER, J. O. MERRYFIELD, J. D. BLANCHARD,
G. P. KELLOGG, Treas.

Finance Committee:

I. G. GARDNER, J. O. MERRYFIELD, A. W. THOMPSON

Trustees:

J. M. HAMILTON, Lake Coll. C. STEELE, San Mateo Co
J. O. MERRYFIELD, Solano Co A. B. NALLEY, Sonoma Co
G. W. COLBY, - Butte Co O. S. ABBOTT, S'ta Barb'a Co
H. B. JOLLEY, - Merced Co A. W. THOMPSON, Sonoma Co
A. WOLF, San Joaquin Co E. W. STEELE, SL Obispo Co
J. D. BLANCHARD, Pres't. W. H. BAXTER, Sec'y.

This association is organized for the purpose of affording the farmers of this State the means of safely insuring against loss by fire, at actual cost of insurance, without being connected with city risks. a822-tf

POISON! POISON!

WAKELEE'S PATENTED

Granulated Squirrel Exterminator.

A NEW AND MOST DESTRUCTIVE POISON FOR THE WORST PEST OF CALIFORNIA.

For years the farmers of the Pacific Coast have been spending money in experimenting to find a safe, cheap and efficient way of ridding their grain fields of their worst enemy, THE SQUIRREL, which destroy Millions of Dollars' worth of grain every year; and unless a strong and combined effort is made to kill them off, they will become more numerous every year.

Wakelee's Granulated Squirrel Exterminator

Is just the thing the farmers of California have been looking for. It is SURE DEATH. One or two grains of it will kill a Squirrel so quick that if it is five feet from his hole it dies before it gets there. The Poison is put up dry and in granular form, and easily handled; in one pound tins at \$1 per pound. It goes a great way, as 10 to 15 grains of it are sufficient to place at each hole. Also successfully used for killing Gophers and Rats. It has been thoroughly tested in different parts of the country, and gave universal satisfaction. It is kept and sold by druggists and dealers generally through the country. The following are some of my testimonials, viz:

H. P. WAKELEE, Esq. :—Your Squirrel Exterminator was used according to your directions, on my *Quito Farm* with excellent success, and in my estimation is just the thing the farmers want to kill their Squirrels.
J. R. ARSUELLO.

SAN LEANDRO, Cal., April 3d, 1874.
H. P. WAKELEE, Esq.—Dear Sir: I have given your Squirrel Exterminator a fair trial and find it to be an economical and very destructive preparation, and I can safely recommend it to our farmers. Yours,
J. M. ESTUDILLO.

DOUGHERTY STATION, Alameda Co., Cal.
Mr. H. P. WAKELEE, San Francisco: I have used your Squirrel Poison and found it to be just what you claim for it. It is sure death. Yours,
O. M. DOUGHERTY.

H. P. WAKELEE, Druggist,
Cor. Montgomery and Bush streets, S. F.

THE CELEBRATED

H. H. H.

HORSE MEDICINE

IS STILL AHEAD OF ALL OTHERS.

The Wholesale Druggists of San Francisco, give evidence of its appreciation throughout the State, by and rapidly increasing orders. We pledge it a cure for SPAVINS, WIND GALLS,

SWEENEY, SCRATCHES,

LAME AND STIFF JOINTS,

CALLONS, LUMPS,

AND ALL BLEMISHES,

SPRAINS OR BRUISES.

It is a household blessing and no family should be without a bottle in the house. For sale everywhere.

WILLIAMS & MOORE, Prop's.,

25v8-6m

Stockton, Cal.

Brittan, Holbrook & Co., Importers of
Stoves and Metals, Tinners' Goods, Tools and Machines,
111 and 113 California, 17 and 19 Davis streets, San Francisco, and 178 J street, Sacramento

AGRICULTURAL NOTES.

CALIFORNIA.

CONTRA COSTA COUNTY.

GRAIN PROSPECTS.—*Contra Costa Gazette*, Feb. 27: To say here there is now good prospect of a larger grain crop this season in this county than has ever before been gathered, would only be to put in print what is quite well enough known. Everything, so far, has been more favorable to the seasonable sowing and growth of a large crop than ever before, and nothing more can be desired but timely future showers. It is not easy to estimate the aggregate crop yield of a good season in this county, from the fact that it is not concentrated for shipment, but goes off from various sections of production to their several shipping points along the San Joaquin river and the bay by water, and from the south side of the county by rail, from Pleasanton and Hayward, or the Alameda shore landings. The best basis for estimating the grain production of the county is probably furnished by the returns made to the Assessor by the producers, and on this basis, as modified by personal knowledge and information, the present prospects warrant us in calculating on a wheat yield of not less than 1,200,000 centals, and a barley yield of half that amount, or thereabouts. Failure of the latter rains, rust, or north winds, may greatly reduce the amount to be realized, but we leave those contingencies out of the calculation at present.

LASSEN COUNTY.

PLOUGHING.—*Lassen Advocate*, Feb. 27: The farmers have commenced plowing, and appearances seem to indicate that spring is upon us; but the experience of several years teach us that we are liable to have lots of rough weather yet. This country, like the Indian's "white man," is very uncertain.

SACRAMENTO.

FLOURISHING CONDITION.—*Folsom Telegraph*, February 27: The Natoma company have nine hundred acres of land in grain this season, all of which is looking finely; it is located south of Alder creek. The vineyard, now about two years old, covers an extent of one hundred acres and lies immediately alongside of the Sacramento valley railroad, at Alder creek station. They have also planted out a young orchard of choice varieties of fruit trees, on and adjoining the Willow creek bottom near the railroad, which covers an extent of one hundred and thirty acres, all these improvements have been made during the last two years.

SAN JOAQUIN.

EXTENSIVE RECLAMATION ENTERPRISE.—*The Stockton Independent* says: Some time ago Mr. J. P. Whitney, of San Francisco, purchased the Reclamation company's title to the swamp land known as Roberts' Island, bounded on the west by Old river, on the south by Middle river, and on the east and north by the principal or navigable branch of the San Joaquin. The new owner is making preparations for the thorough reclamation of the land, and with this view has employed two competent engineers, Messrs. Wallace, of this city, and Gibbs, of San Francisco, to ascertain by instrument of survey what is really required to be done, and the best way of doing it. Instead of beginning at random, and constructing levees here and there, as necessity may seem to suggest, Mr. Whitney has wisely concluded to enter upon the work systematically, and carry it out upon a carefully prepared plan. The engineers have entered upon the work of measuring the rivers and sloughs for the purpose of preparing an accurate map of the land, showing the streams, sloughs, ponds, elevations and depressions on the island. The land at the present time is too wet to admit of accurate levels being taken with facility, but this is to be done as soon as the water on the surface dries off. The object is first to ascertain the most practicable and efficient plan before commencing upon the execution of the work. Roberts' Island embraces about sixty-five thousand acres of land which, when thoroughly reclaimed, will be of great value.

SANTA BARBARA.

WHEAT PROSPECTS IN THE OJAI.—*San Buenaventura Signal*, February 27: Mr. Suhren, of the Ojai, has placed on our table several stalks of wheat and rye, which are now in blossom. The wheat stalks are five feet in length; the rye, of course, much longer. The heads were full and of good length. The prospect for a big wheat crop in the Ojai never was better.

SISKIYOU.

HOPS.—*The Yreka Union* of the 27th ult. says that Rev. Father Callan, who has given considerable attention to hop culture, that the soil and climate of that county, and particularly of Scott Valley, are better adapted to the growing of hops than are those of any other part of California. In this connection the Rev. Father authorizes them to offer on his behalf a premium of \$50 to the farmer who will raise and mature in the county, the first 1,000 pounds of hops. Let farmers who are looking about for a crop that will pay take note of this!

ALFALFA.—The above authority also has this to say about Alfalfa: We learn that a great number of farmers in the county, particularly in Scott valley are making preparations to sow a part of their land in alfalfa the present season. We are glad to know that this is the case. We are satisfied that all land that can be irrigated will produce three good crops of hay each summer, aggregating according to the character of the land, from five to ten tons to the acre. The same land which has produced this amount of hay to the acre, will furnish in addition several months of good pasturage for cattle, horses, or sheep. We have before presented to our readers the testimony of those who have tried it, in regard to its superiority as feed for milch cows. This testimony is in effect, that cows pasturing on alfalfa, or fed on alfalfa hay, will give about double the amount of milk that they will on any other pasture, or fed on any other kind of hay. We have also had abundant testimony with regard to its fattening properties; those who have experimented with it the most, say that cattle and sheep do better and keep fatter on it than on almost any other grass. When its qualities in these respects are considered, in connection with its almost fabulous yield, the wonder is not that many farmers are taking steps to seed a part of their land with this grass, but that there should be found any who omit to do so. There is probably some difference of opinion as to when is the best time to sow alfalfa, and it may be that one time would be best for sowing on one piece of land, while some other time would answer better on another piece. But, however this may be, we take it that those who sow during the next few weeks will not go far wrong.

NEVADA.

A SAGEBRUSH PULLER.—Mr. J. S. Peacock, of Reno, has had manufactured at the Stockton iron works, of Farrington, Hyatt & Co., a machine for pulling sagebrush. Mr. Peacock is the inventor of the machine, which he calls the "Little Giant Sagebrush Puller," and for which he received a diploma at the last State fair in Nevada. It has jaws extending in front of a cast iron wheel, and which are opened and closed by handles which serve as levers, while the wheel is the fulcrum. It is so arranged that great leverage power is obtained, and sage or other brush uprooted easily. It can also be used for removing rocks, and can be converted into a potato digger.

OREGON.

STOCK.—*The Pendleton Tribune* says: From Mr. Gilmore, just arrived from Heppner, we learn that the stock in that locality is doing finely. So far none had been lost. Samuel George, living on Butte creek, not only has not lost any by starvation, but has between forty and fifty fat cattle for sale. We hope similar reports may reach us from all parts of the country.

WASHINGTON TERRITORY.

WHEAT PROSPECTS.—*The Walla Walla Union* of Feb. 20th says: It is feared that the next wheat crop in this valley will not be very large. The rains held off so late last fall that it was impossible to plow until late in the season. Then the snow followed the rain so closely that it left but little time in which to prepare ground and put in grain. So that thus far there is not a very bright prospect for a full crop of wheat. Still if the snow goes off soon, and a favorable spring season follows, what is lacking in fall wheat may be made up by the spring sowing. It is to be hoped that a full crop may be raised, as the prospects for a fair price for wheat are better, in our mind, than they have been in a number of years.

PATENTS & INVENTIONS.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

[FROM OFFICIAL REPORTS FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.]

By Special Dispatch, Dated Washington, D. C., March 2, 1875.

FOR WEEK ENDING FEB. 16, 1875.

DRYER FOR REFINED SUGAR.—Angust F. W. Partz, Oakland, Cal.

CAR SPRING.—Andrew Jackson Culbertson, San Andreas, Cal.

SEWING MACHINE FOR STITCHING SACKS. San Francisco, Cal.

FLUX FOR TREATING ORES.—P. N. Mackay, EYELETING MACHINE—John Coombe, San Jose, Cal.

SMOKE CONSUMING FURNACE.—W. L. Powelson, S. F. Cal.

HOOF TRIMMER.—Andrew Shirran and Wm. J. Givens, Pacheco, Cal.

—The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue. NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & CO., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with perfect security and in the shortest time possible.

A GOOD PAPER.—*THE MINING AND SCIENTIFIC PRESS* has entered its 30th volume. It grows better as the years roll, and is, without exception, the best paper published for California miners and artisans. If such papers were more generally circulated to the exclusion of the sensation trash of the cities, the State would be the gainer in wealth, morals and general intelligence. —*Tuolumne Independent*.

ATTENTION is directed to the advertisement of Ellwanger & Barry, Nurserymen, Rochester, New York. As is well known, they are the largest and most successful growers of fruit and ornamental trees, shrubs and plants in the United States. Parties wanting any thing in their line will do well to send for their illustrated and descriptive catalogues.

WOODWARD'S GARDENS embraces an Aquarium, Museum, Art Gallery, Conservatories, Tropical Houses, Menagerie, Seal Ponds and Skating Rink.

Calistoga Real Estate Company.

Elsewhere we have an article descriptive of the general features that characterize Calistoga—coupled with this is the announcement that a company under the above title, have secured this valuable property, by an arrangement with its former owner Samuel Brannan Esq., and now offers it to the public through the medium of a stock plan:

The Trustees of the company are:
E. W. Burr, Pres. Savings & Loan Society.
C. Hartson, President Bank of Napa.
J. B. Frisbie, Pres. Vallejo Commercial Bank.
Julius Wetzlar, President Capital Savings Bank, Sacramento.

Col. J. P. Jackson, San Francisco.
The high standing and well known integrity of these gentlemen, are a certain guaranty that the affairs of the company will be conducted with regularity and exact justice.

The capital stock of the company is \$1,000,000, divided in 20,000 shares of \$50 each. The sale of a certain number of shares has been authorized by the board at the rate of 25 cents on the dollar, making \$12½ per share. There is no such contingency as an assessment possible, and the entire property and its proceeds are to be divided pro rata among the stock-owners, without deduction of any kind whatever. The taxes and all other incumbrances upon the property, and all expenses of executing the trust by the above named Directors are paid by the original owner of the property. The "Springs" property upon which are the hotel, the numerous handsome cottages, stables, bathing houses, swimming bath, skating rink, and summer houses; together with the lots in the town not heretofore sold by Mr. Brannan; the original race track, now divided into handsome building lots; suburban tract of half an acre and more each; the commanding knolls, the vineyard tract now in blocks to suit purchasers, and the outlying farming land, are all included in the company's ownership and are offered to the stockholders as their own. Scarcely has so munificent a property been thus placed in such a tempting position.

The chances are that the limited number of shares now placed upon the market at the price above named, will be immediately taken up, and then the value will naturally be advanced upon the balance—here, as ever in real estate, the earliest comer reaps the richest profits.

Perhaps nowhere in California is there the same prospect for immediate growth in business and population, as that which is now universally ascribed to this portion of Napa valley. The opening values of the mines, and the solid bars of silver from the Calistoga Quartz Mill, are irreproachable witnesses of the richness of these hills; and in consequence the mineral interest is issuing its challenge to the agricultural, that, for so many years, has been enthroned as queen upon her emerald fields.

The variety of employment to which this gives rise, and the increased activity that is seen in the streets of Calistoga and upon the roads leading therefrom, indicate a decided addition to the proportions of this pleasant town and a consequent rise in the price of property therein for business and residence purposes.

Either for occupation or for profit we should certainly say, "now is the time to secure a foothold here." At this point the railroad ends and all freight or supplies either to or from the town must here be handled—this necessitates the employment of large numbers of men and horses—again the situation of the town with reference to the productions of the surrounding country makes it a most economical point for a great variety of manufacturing and other industrial pursuits—already this has been demonstrated and still other and new branches of labor will here find their chosen sphere of action.

Having thus laid the facts before our readers, we feel that we have simply done an act of justice to a most worthy project, and for any further particulars in the premises, we have to refer the inquirer to W. H. Martin, Esq., the agent of the California Immigrant Union, who has been selected as the General Agent of the Calistoga Real Estate Company, and who will furnish maps, descriptions, explanations, etc., in full and in detail to those desiring to know further. From him the stock can also be procured.—*Ex.*

STATE BOARD OF AGRICULTURE.—The State Board of Agriculture met yesterday at Three P. M., President Carey presiding. Present—Directors J. J. Green, Cris. Green, Biggs, Chamberlain, Boruck, Hamilton, Cox, Younger and Mott. The Board spent the opening time of the session in closing up the recommendations of Committees for special premiums as follows: Premium for best fruit dryer was awarded to J. M. Keeler & Co., \$50; premium to Geo. Bemant, for graded mare, \$20. The question was taken up of an old claim against the Society for track grading and filling, amounting to \$1,700 or \$1,800, in favor of the Central Pacific railroad company. The matter was referred to a Committee consisting of President Carey and Directors J. J. Green and Fred. Cox, with full power to act in effecting a settlement. The following standing Committees were then named: Finance—Carey, Beck and Cox. Library—Beck, Chris. Green and Mott. Publication—Carey, Beck and Boruck. The question of making up the premium list for the next exhibition of the Society was then taken up and discussed. The Board went into Committee of the whole and took up the premium list and rules with the intention of completing the entire make-up of the list.—*Sacramento Record*, March 2d.

TREES, Etc.

We offer for Spring, 1875, an unusually large stock of well-grown, thrifty
Standard and Dwarf Fruit Trees;
Grape Vines, Small Fruits;
Ornamental Trees, Shrubs, Roses;
New and Rare Fruit and Ornamental Trees;
Evergreens and Bulbous Roots;
New and Rare Green and Hot-house Plants.

Small parcels forwarded by mail when desired.
Prompt Attention Given to all Inquiries.
Descriptive and Illustrated Priced Catalogues sent, prepaid, on receipt of stamps, as follows:
No. 1—Fruits, 10c. No. 2—Ornamental Trees, 10c.
No. 3—Greenhouse, 10c. No. 4—Wholesale, Free.

Established in 1840. Address,
ELLWANGER & BARRY,
Mount Hope Nurseries, ROCHESTER, N. Y.

Improve Your Poultry,

IT COSTS NO MORE TO KEEP GOOD FOWLS THAN POOR ONES!

OAKLAND POULTRY YARDS,

Cor. 16th and Castro streets, Oakland, Cal.



WHITE LEGHORNS.

Called THE POOR MAN'S FOWL. Eggs, \$6 per doz; Fowls, \$20 to \$30 per trio; Single Cocks, \$10. A new importation of J. Boardman Smith & Patten's celebrated strains just received. Stock guaranteed perfect in markings—white ear lobes, etc. No inferior stock sold at the Oakland Poultry Yards for any money.

For further information send stamp for Illustrated Circular, containing a full description of all the best known and most profitable fowls in the country, to
GEO. B. BAYLEY,
Importer and Breeder of Blooded Fowls.
Box 659, San Francisco.

Purity of all Stock and Eggs sold absolutely guaranteed.

Bronze Turkeys 12 Gobblers from 8 to 20 months old, 22 to 40 lbs each, for sale now. Hens 14 to 18 lbs.
Emden Geese 40 to 50 pounds per pair at maturity.
BLACK CAYUGA DUCKS,
Games, Brahmas, Leghorns, Houdans, Bantams, etc.

Eggs, fresh, pure, true to name; well-packed so as to hatch after arrival.

For Illustrated Circular and Price-List, address
M. EYRE, Napa, Cal.

FERRETS. RABBITS. PIGEONS.
Please state where you saw this advertisement.

LEVI, STRAUSS & CO.,

Patent Riveted

Clothing,

14 & 16 Battery St.,

San Francisco.



These goods are specially adapted for the use of FARMERS, MECHANICS, MINERS, and WORKING MEN in general. They are manufactured of the Best Material, and in a Superior Manner. A trial will convince everybody of this fact.

Patented May 12, 1873.
USE NO OTHER, AND INQUIRE FOR THESE GOODS ONLY. eow

HEALD'S BUSINESS COLLEGE,

No. 24 Post Street, San Francisco.

The largest and best Business College in America. Its teachers are competent and experienced. Its pupils are from the best class of young men in the State. It is under the very best discipline. Its scholarships are good in the Thirty-Six Bryant & Stratton Colleges. It employs four of the best penmen in the State. It has the largest rooms, the largest attendance, and the most complete system of business training of any commercial school in the country.

For information, call at the office, 24 Post street, or address, for circulars,

E. P. HEALD,
President Business College, San Francisco.

Nurserymen.

Established 1853.

Stocks for Nurserymen.

Plum Seedlings, Mirobolan, the best French stock, does not sucker..... \$50 per 1000
 Apple Seedlings..... 10 per 1000
 Pear Seedlings..... 10 per 1000
 Cherry Seedlings, Mazzard..... 12 per 1000
 Cherry Seedlings, Mahaleb..... 20 per 1000
 Walnuts, English, 4 to 6 feet..... 15 per 100
 Cork Elm, best Elm, 4 to 6 feet..... 15 per 100
 Blue Gum or Eucalyptus, in variety..... 5 to 10 per 100
 Magnolia Grandiflora.....
 Magnolia Acuminata.....
 Magnolia Tripetala.....
 Golden Arborvitae.....
 Crataegus Arbuta.....
 Swedish Juniper.....
 Irish Juniper.....
 Heath-leaved Arborvitae.....
 Heath, Mediterranean..... \$2 50 per doz.
 Laurustinus, 6 to 12 in..... 2 50 per doz.
 Making the growth of Oranges and Lemons a specialty, I have imported from all sources the best known varieties, and now offer five thousand Grafted Trees properly worked and twice transplanted at \$18 per dozen. Grafted oranges by the 100 or 1,000 at prices on application. The amateur in want of large PALMS, large AURICARIAS, large CAMELIAS and large THREE FERNS, a good stock on hand; also the usual large stock of fruit and ornamental trees.

BERNARD S. FOX,
 San Jose, Cal.

THOS. MEHERIN, Agent, 516 Battery Street, San Francisco. 24v83m.

Fruit, Shade and Ornamental

EVERGREEN TREES

Plants for Sale.

At the old stand, corner Oregon and Battery streets, directly opposite Post Office, San Francisco.

I NOW OFFER FOR SALE

The Largest and Best Collection of Fruit, Shade and Evergreen Trees and Plants ever offered in this market, and at Reduced Prices.

Persons laying out new grounds would do well to call and examine our stock before purchasing elsewhere.

ORDERS FROM THE COUNTRY

Promptly attended to and packed with great care. A large stock of Cypress, Pines and Blue Gum for sale very low. Send for Price Catalogue.

Agent for B. S. Fox's Nurseries, San Jose.

Address THOMAS MEHERIN,
 P. O. Box, 722, 516 Battery St., S. F.

SHINN'S NURSERIES,

NILES' JUNCTION,

Alameda County, - - - California.

The attention of persons intending to set out Trees is requested to the well grown and large variety offered for sale by the undersigned at the above Nurseries. An examination of our stock will satisfy any one of the quality, being all that can be asked, and when the low prices we have fixed are taken into consideration, we believe we are offering the very best inducements for buyers to deal with us. For full particulars we refer to our circular for the approaching season, which will be sent, as requested, on application to either of the undersigned.

SHINN & CO.,
 Proprietors.

Address James Shinn, Niles, Alameda County, Cal., or, Dr. J. W. Clark, 418 California street. San Francisco, Cal. 8v17-4mo.

F. LUDEMANN. RUD. MICHELSEN.

PACIFIC NURSERY,

Baker St., Between Lombard and Chestnut,
 San Francisco, Cal.
 P. O. Box 475.

We offer this Season a Large and Complete Selection of Well Grown

EVERGREEN AND DECIDUOUS TREES AND SHRUBS, FLOWERING AND ORNAMENTAL PLANTS

At very reasonable Prices. Our Descriptive Catalogue of Evergreens and Deciduous Trees and Shrubs, and our Wholesale Trade List (For Dealers and Nurserymen) will be sent on application. All Orders promptly filled.

F. LUDEMANN & CO.

KING'S NURSERY,

Twenty-fifth St., bet. Telegraph & Broadway
 OAKLAND, CAL.

Fruit, Shade and Evergreen Trees, Shrubs, Roses, Etc. Persons laying out new grounds would do well to call and examine our stock before purchasing elsewhere. A large stock of EUCALYPTUS, including BLUE GUM Pines and OYERS from six inches to twelve feet high. Acacias in Variety; Young Stock for Nurserymen; Pines and Cypress; Three Thousand Magnolia Grandiflora from six inches to five feet high; Camelia Japonica; Gardenia Cape Jessamine; Arbutus in Variety, at Lowest Rates. Orders attended to. Address, M. KING, Nurseryman, 3v9-3m. Oakland, Cal.

BLOOMINGTON NURSERY, Bloomington, Ill.—F. KERNER. Spring lists free, or the set of four catalogues post free for twenty cents.

Metropolitan Nurseries,

Lombard Street,

Between Polk & Larkin Streets, at the Terminals of the Clay Street Hill Railroad.

MILLER & SIEVERS, PROPRIETORS.

FLORAL AND SEED DEPOT,

NO. 27 POST STREET, San Francisco.

Our stock of plants, comprising a most selected collection of Flowering and Ornamental Plants for the garden and the conservatory.

ROSES, over 200 varieties.

PINKS, 100 varieties.

DAHLIAS, 60 varieties.

PALMS, 40 varieties.

FERNS, 100 varieties.

ORANGES & LEMONS, 30 varieties

Our assortment of Flowering Bulbs is complete. Always on hand a choice and fresh lot of

TREE, SHRUB and FLOWER SEEDS.

CUT FLOWERS, BOUQUETS, FUNERAL WREATHS and FLORAL DECORATIONS furnished at short notice and on reasonable terms.

Orders from any part of the country promptly filled.

Eucalyptus globules, (Blue Gum) seed, fresh invoice \$15.00 per pound.

New catalogue now ready, gratis on application.

BELLEVUE NURSERY,

Telegraph Avenue, Oakland.

WE OFFER FOR SALE THE PRESENT SEASON A LARGE ASSORTMENT OF

Ornamental Trees and Shrubs

OF BEST TRIED VARIETIES.

Many fine specimens of good size can be seen on the grounds to select from. Choice collections (true to name) put up for those starting a garden.

Street cars pass every fifteen minutes.

3v9-1f S. NOLAN.

J. ROCK'S NURSERIES,

San Jose, California.

We offer this season a Complete Stock of

FRUIT AND ORNAMENTAL TREES,

SMALL FRUITS AND PLANTS.

The attention of Dealers, Nurserymen and Planters is invited to our Large Stock of Fruit Trees. All Leading Market Varieties are grown in large quantities. To all those purchasing largely we will make a Liberal Discount. Catalogues FREE on application.

23-v8-1f JOHN ROCK, San Jose, Cal

Thos. A. Garey's

Semi-Tropical Nurseries.

LOS ANGELOS, CAL.

Forty varieties of the Citrus family of semi-tropical trees, including many rare and beautiful, as well as useful and profitable kinds.

Grafted and Budded Orange Trees a specialty. Trees packed to arrive in good order. Priced Catalogue sent free. Address me P. O. Box, 528, Los Angeles city, Cal.

23v8-6m THOS. A. GAREY.

ALMOND TREES.

35,000 Brier's Languedoc Almond Trees, one and two years old from the bud. This is the only Almond planted on a large scale, being hardy, late blooming, beautiful tree. It bears the second year from planting. The Almond is large and sweet with soft shell. Also, two year old Peach and English Walnut trees. Liberal terms to the trade and persons planting large orchards. Send orders to

W. W. BRIER,

21v8-3m Centerville, Alameda Co., Cal.

PEACHES, APRICOTS AND PLUMS

are specialties at the Vacaville Nursery, Solano Co., Cal. Alexander's Early, Thurber and Peento in bud, 50 cents each. Beatrice, Louise, Rivers' Early, Lord Palmerston Lady Palmerston, Prince of Wales, Princes of Wales, Picquet's Late, Lady Parham, Italian Dwarf, Golden Dwarf, Bloodleaved and many other varieties of new Peaches in bud, at 25 cents each; Trees of Alexander's Early, \$1 each. Beatrice, Plowden, Freemason and a general assortment of the leading varieties, 25 cents each; Apricots, Plums, Apples, Pears, Cherries, Almonds, Figs, Olives, Pomegranates and including most of the leading varieties of fruit for sale at low prices. D. E. Hough, Vacaville, Solano Co., Cal.

HOP ROOTS FOR SALE.

I have a lot of choice HOP ROOTS, and also healthy BLACKBERRY SETS for sale at LOWEST RATES. Orders may be addressed through DEWEY & Co., of the Rural Press, San Francisco; ROSE, WILLIAMSON, Capital Nurseries, Sacramento; or to me,

CALVERT T. BIRD,

24v8-3m San Jose, Cal.

1852.

ESTABLISHED IN 1852.

1875.

THE STOCKTON NURSERY

I have for sale for the ensuing season a Large and Well Grown Stock of All Varieties of

FRUIT TREES,

SHADE,

ORNAMENTAL

and

EVERGREEN TREES.

GREENHOUSE PLANTS, AUSTRALIAN GUMS, SHRUBS, ROSES, BULBS, PALMS.

Send for Catalogue.

W. B. WEST, Stockton, Cal.

FOR

FOR

FRUIT,

O NAMENT

TREES

FOR

FOR

PLEASURE,

PROFIT,

WHOLESALE AND RETAIL.

Pears, Apples, Cherries, Peaches

Plums, Quinces.

Small Fruits.—Grapes, Currants, Raspberries, Blackberries, Strawberries, Gooseberries.

Ornamental.—Weeping and Standard Trees.

Evergreens.—Common and New and Rare.

Shrubs.—Variegated-leaved and Flowering.

Roses.—Moss, Tea, Climbing and Perpetual.

Clematis Jackmanni is perpetual, hardy, lives easy, grows fast, and flowers the first year.

12 sorte Perpetual White Clematis and fifty new varieties of many shades of colors. Strong plants safely sent by mail.

Good Plants sent by mail, post-paid, as follows:

6 Choice Roses for...\$1 00 13 Choice Roses for...\$2 00

6 Variegated-leaved and Flowering Shrubs for...\$1 00

13 Variegated-leaved and Flowering Shrubs for...\$2 00

500 Acres } T. C. MAXWELL & BRO'S.
 of Nursery. } Catalogues Free. Geneva, N. Y.

KELSEY'S NURSERIES,

OAKLAND, - - - - - CAL.

Established 1852.

More largely stocked this year than any previous year. Embracing all and every kind of

FRUIT, DECIDUOUS, ORNAMENTAL AND

FLOWERING TREES AND

PLANTS, ETC.

Send for Catalogue and Price List free on application.

W. F. KELSEY, Prop.

SUPERIOR FRUIT TREES

TRUE TO NAME.

A fine collection of Evergreen and Deciduous Trees. Australian Gum Trees in variety, by the hundred or thousand. Monterey Cypress in quantities and sizes to suit all. Orange and Lemon Trees at reduced prices. A general variety of Nursery stock.

Also, Rhubarb and Asparagus roots.

T. CORLEY,

18v29-1f 315 Washington Street, S. F.



BAY NURSERIES

and Seed Store.

Established 1852.

P. O. Box 331.

OAKLAND, OAL.

An immense collection of Evergreen Trees, Shrubs and Flowering Plants, wholesale and retail. I invite inspection. Catalogues on application.

JAMES HUTCHISON, Prop.

PEPPER'S NURSERIES.

(Established in 1853.) PETALUMA, OAL.

Green House and Tree Depot corner Washington and Liberty streets.

4 Green Houses. 3,000 feet of Glass. Fruit Trees a Specialty.

We offer for sale at lowest market rates a general assortment of Fruit and Shade trees, small Fruits, Vines etc. Evergreen trees and Shrubs in great variety. Green House, Conservatory and Bedding Plants, Roses, etc.

We are now ready, Nov. 1st, to fill orders for trees and plants. Catalogue and price-list furnished on application.

Address, W. H. & G. B. PEPPER,

19v8-1f Petaluma, Sonoma Co., Cal.

Pomona Nursery.

One hundred acres in small fruits. Largest and best varieties. Plants by mail. Send for illustrated catalogue (32 pages) telling what and how to plant, with 36 years experience.

WM. FARRY,
 Ottomanninon, N. J.

The Aughinbaugh Blackberry



This new and excellent variety of Blackberries begin to ripen from the first to the fifteenth of May, and continue to produce berries until the middle of July, about the time other varieties begin to ripen.

Plants are now ready for transplanting and for sale at my residence on Washington Avenue, west of Euclid Street, Alameda, and at Geo. F. Silvester's, 317 Washington Street, San Francisco. Price \$25 per hundred plants.

G. AUGHINBAUGH.

NO THORNS TO SCRATCH.

Hoosac Thornless Blackberry.

Quality and Productiveness unequalled. Hardy. Never has winter killed. One plant by mail 5 cts.; six plants, \$2.25; 12 plants \$4.00. Full history, notes and testimonials, free to all. Address FRANK FORD, Ravenna, O. Discount to Granges and dealers on large orders.

Seedsman.

1875.

Established 1857.

1875.

Capital Nursery and Seed House

W. R. STRONG and ROBERT WILLIAMSON, Proprietors, having united their interests in the Seed and Tree business, offer to the public the largest and finest growth of both Seeds and Trees ever offered to the California public, of their own production, and also from the largest and most reliable houses of the Eastern States and Europe, all of which we offer as low as Eastern Dealers.

TREES. TREES. TREES.

Fruit, Shade, Ornamental, Evergreen, etc., raised in our Nurseries of the very best varieties. Dealers and Growers furnished at very lowest rates. Among our numerous varieties we call especial attention to BRIGGS' RED MAY PEACH, the earliest known, large, handsome of excellent flavor and good shipper.

SEEDS. SEEDS. SEEDS.

Vegetable, Flower, Field and Tree Seeds, and Flowering Bulbs and Plants.

100,000 pounds Finest Quality California ALFALFA, RED and WHITE CLOVER, KENTUCKY BLUE GRASS, RYE GRASS, ORCHARD GRASS, VERNAL GRASS, MESQUIT GRASS, TIMOTHY, RED-TOP GRASS, and every other Grass adapted to the Pacific States and Territories.

All the finer qualities of our Seeds will be forwarded by mail (post-paid) to customers at Catalogue rates, on receipt of money, which can be sent by postal orders or registered letters, or express, at our risk.

CATALOGUES AND PRICE LISTS on application, and forwarded by mail.

WAREHOUSE, 8 and 10 J street. NURSERIES, U street, SACRAMENTO CITY. TREE YARD, I street, next to Library Building.

W. R. STRONG & CO.



My annual catalogue of Vegetable and Flower Seed for 1875, will be ready by Jan. 1st for all who apply. Customers of last season need not write for it. In it will be found several valuable varieties of new vegetables introduced for the first time this season, having made new vegetables a specialty for many years. Growing over a hundred and fifty varieties on my several farms, I would particularly invite the patronage of market gardeners and all others who are especially desirous to have their seed pure and fresh, and of the very best strain. All seed sent out from my establishment are covered by three warrants as given in my catalogue.

JAMES J. H. GREGORY, Marblehead, Mass

Fresh Osage Orange Seed

At One Dollar per pound, will be forwarded by mail in one pound packages on receipt of the price. Address,

DR. STRENTZEL,
 Martinez, Contra Costa Co., Cal.

Union Box Factory,

GEO. W. SWAN & CO.,

115 and 116 Spear St., bet. Mission & Howard

SAN FRANCISCO.

Apple, Pear, Plum, Peach, Cherry, Grape, Orange, Lime and Wine Cases.

Tomato, Potato, Fig and Raisin Boxes.

Strawberry, Raspberry and Blackberry Chests and Drawers, and Baskets for all kinds of Berries.

Peach and Picking Baskets, Butter Chests and Boxes, Cheese Boxes, Square and Round Egg Carriers.

Drums for Figs, Cherries, Raisins, and for other Dried Fruits.

Free Packages—Boxes not to be returned—a good article, costing less than Sawed Boxes.

Lard Caddies, Coffee and Fruit Caddies.

Turkey and Chicken Coops, Bee-Hives, Etc.

Packing Boxes for Dry-Goods, Cigars, Candies, Canned Fruits, Honey, Macaroni, Crackers, Sugar, Soap, Boots, Etc.

In fact, every style of Boxes manufactured in the Union, and turned out in the Best Style at Favorable Prices. Orders from the country well attended to

Agricultural Articles.



CHAS. P. HOAG.

Nos. 18 & 20 Fremont Street,
Near Market, San Francisco.

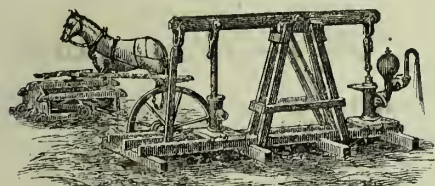
VINE AND FRUIT GROWERS,

TO RAISE LARGE CROPS

YOU MUST IRRIGATE.

To irrigate successfully, you must have the power that does not give out when the wind fails.

Laufkotter Bros. & Churchman's Horse-Power,



[PATENTED FEBRUARY 13TH, 1872.]

Never fails to supply more water than four or five Windmills, even supposing you had all the wind you want. It is also suitable for running light machinery, such as Barley Crankers, Corn Shellers, Fanning Mills, Grain Separators, or for Sawing Wood. They are never failing, cannot get out of order, easily worked, substantial, and always give satisfaction wherever they have been used. One horse can easily work two 5-inch pumps, with a continuous flow of water. Force Pumps, from 3,000 to 10,000 gallons per hour. WINDMILLS of all kinds manufactured to order. Wells Bored, Windmills and Horse-Powers set in any part of the State, and repairing of all kinds done.

Manufactured and for sale by
LAUFKOTTER BROS.,
v7-2m-3m Cor. J and 10th Sts., Sacramento.

O. OREGO. S. O. BOWLEY.

CREGO & BOWLEY,

Importers and Manufacturers

—OF—

CARRIAGES and WAGONS,

No. 9 Merchant's Exchange,

CALIFORNIA STREET.....SAN FRANCISCO

Keep constantly on hand top and open Buggies, top and open Rockaways, Jump-seat Buggies, Track and Road Sulkeys, Skeleton Wagons, Basket Phaetons of the very latest styles and finest workmanship.

We would call particular attention to our fine stock of Light Road and Trotting Wagons, made to order by the following celebrated makers:

Charles S. Coffey, Camden, New Jersey;
Helfield & Jackson, Rahway, New Jersey,
Gregg & Bow, Wilmington, Delaware;
And the first-class makers, which we are prepared to sell on the most reasonable terms.

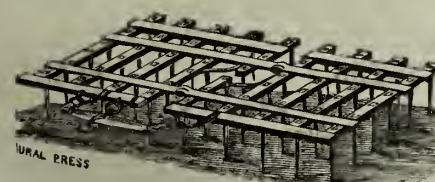
Also, a large assortment of single and double Harness, of the most celebrated makers:
O. Graham, New York; J. R. Hill, Concord; Pittkin & Thomas, Philadelphia.

Also, a full assortment of Dress and Light Blankets, Fur and Lap Robes, Whips, Halters, Surcingles, etc., at wholesale and retail.

CREGO & BOWLEY,

No. 9 Merchants' Exchange, California street,
24v5-3m San Francisco.

Donohue's Patent Harrow.



Patented October 13, 1874.

This Harrow, as may be seen in the cut, is constructed so that by its natural hanging and draft, without extra weights, the outer edges will keep down to their work, and preserve, as nearly as possible, a uniform level and penetration of teeth. To illustrate the engraving, if a line should be drawn through the two hinges it would cut the Harrow into two trapezoidal figures, thus causing the weight of the corners or acute angles to be nearly at right angles to the breaking line or joints of the two hinges, so that their superior leverage, owing to their greater distance from the hinges, will cause them to keep closely down to the ground when the harrow is working.

Orders received from all parts of the country, and a thoroughly durable implement furnished at reasonable rates, by the inventor, who is a practical worker.

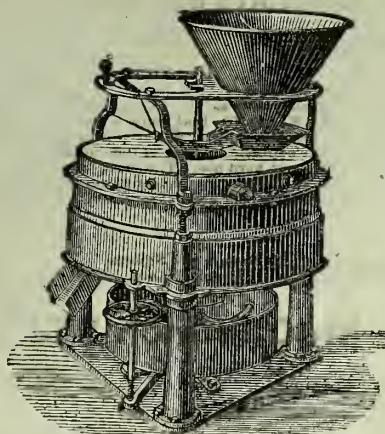
F. DONOHUE,

Mayfield, Santa Clara County, Cal.

J. WAGNER,

MANUFACTURER OF

FRENCH BURR MILL STONES AND
PORTABLE MILLS.



General Mill Furnishing. Portable Mills specially adapted for Farmers' use. 113 and 115 Mission street, San Francisco. 13v7-3m-2am

MATTESON & WILLIAMSON'S

AMERICAN CHIEF



GANG PLOW.

Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m MATTESON & WILLIAMSON,
Stockton, Cal.

Farmers and Threshers

WISHING TO HAVE

Straw Burning Engines

For next season must engage them soon, as most of those now building are already sold. Threshing Engines for Repairs should be sent in now. A number of Second-hand Engines—taken in exchange for "Straw Burners"—for sale cheap. For particulars and prices, address:
H. W. RICE,
23v8-3m Haywood, Alameda County.

PUMPS THE SLUTHOUR PUMPS

Are sold 50 per cent. under any other, in the market, considering the amount of water obtained for the power applied. They have now been fully tested for IRRIGATION, and entire satisfaction is guaranteed. Call and see them, or send for Circulars.

J. M. KEELER & CO., Agents,
305 California Street, San Francisco.

Allen's Planet Jr Silver Medal

HAND DILLS and WASHING HOES. These new styles. They "saw like a charm," and hoe better, easier, and six times faster than the hand hoe. S. L. ALLEN & CO., Mfrs. 119 S. 4th St., Phila., Pa. Circulars free. A LIVE AGENT WANTED IN every town.

J. Y. WILSON. WM. FAULL. W. L. MERRY

WILSON, MERRY & CO.,

Provision Packers

And Dealers in

SALTED AND SMOKED MEATS,

Lard, Etc.

PROP'S BLACK POINT PACKING HOUSE.

We respectfully call the attention of Farmers and Stock Raisers to the fact that we are always prepared to purchase hogs, cattle and sheep at full market prices, for Cash, and shall be glad to answer, promptly any inquiries addressed to us on the condition of the Market.

Office No. 223 Sacramento St., Near Front,
San Francisco.

THE ALDEN

Fruit Preserving Company

OF CALIFORNIA.

Is now prepared to sell rights and furnish the necessary machinery for using the "ALDEN PROCESS," acknowledged to be the best method known for preserving Fruits, Vegetables, Meats, etc.

For full particulars call at the company's

Office, 426 Montgomery St., S. F.

G. W. DEITZLER, President.
W. M. WHERRY, Vice-President.
FRANK PYLE, Sec'y and Sup't.
BANK OF CALIFORNIA, Treasurer.

11v7-6m

Commission Merchants.

STUART & ELDER,

WHOLESALE

COMMISSION MERCHANTS

FOR THE SALE OF

California Dairy Produce,

GRAIN & QUICKSILVER,

204 Front Street, San Francisco.

AGENTS FOR THE

Missouri,

Kentuck,

Ida Clayton

and Yellow Jacket

Quicksilver Mines.

All orders for Supplies and Machinery for
Mines promptly attended to.

RETORTS, POWDER and MINERS' TOOLS

Supplied at Importers' Prices.

3v9-cow-bp

JOHN H. HEGLER,

No. 414 Clay Street, San Francisco, Cal.

GRANGERS'

DAIRY PRODUCE

—AND—

COMMISSION HOUSE,

HAS EVERY FACILITY FOR SELLING

BUTTER, CHEESE,

POULTRY, EGGS,

LARD,

HAMS,

HIDES,

BACON.

WOOL,

PEETS,

POTATOES,

DRIED & CANNED FRUIT, HONEY, Etc.



MILLER & CO.

WOOL

COMMISSION MERCHANTS

10 DAVIS ST. S. F.

Davis & Sutton, Commission Merchants,
For California Fruits; also for the sale of Butter, Eggs Cheese, Hops, Green and Dried Fruits, etc., 75 Warren street, New York. Refer to Anthony Halsey, Cashier, Tradesmen's National Bank, N. Y.; Ellwanger & Barry, Rochester, N. Y.; C. W. Reed, Sacramento, Cal.; A. Lusk & Co., Pacific Fruit Market, San Francisco, Cal.

No AGENTS are authorized to receive subscriptions this paper at less than our advertised rates.

Miscellaneous Notices.

C. C. Burr & Co's



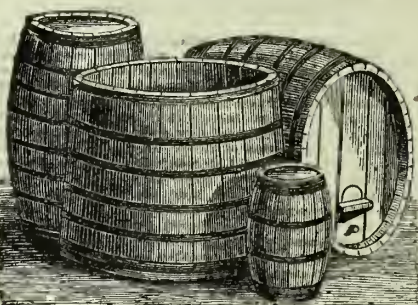
Mustard

50 per cent. Better than any
Imported Mustard.

Ask Your Grocer for it.

9v5-cow-bp.

DAVID WOERNER,



COOPER,

No. 104 and 112 Spear St., San Francisco.

Wine Casks, Tanks, Tubs, Pipes, Beer Barrels, etc., Manufactured at Short Notice and LOW RATES.

LUMBER for CASKS, etc., TANKS, etc. Steamed and Dried if required.

cow-bp.

ARMES & DALLAM,

WHOLESALE DEALERS IN

WOOD AND WILLOW WARE

Baskets, Brushes and Twines,

Clothes Wringers,

Doty's Washing Machines,

AND

GENERAL HOUSE FURNISHING GOODS

And Manufacturers of

BROOMS, PAILS, TUBS, WASHBOARDS,

DASH,

CYLINDER,

THERMOMETER,

AND SQUARE BOX

CHURNS,

215 and 217 Sacramento St., San Francisco.

J. & P. N. HANNA,

IMPORTERS AND DEALERS IN

Grain, Wool Ore and Bean Bags,

Flax, Cotton and Linen

Twines.

COTTON, DUCK, RAVENS AND DRILLS—33, 36, 40, 42 and 45-inch Wide Duck; 8, 10, 12 and 15-Ounce Duck.

Ore Bags, Tents and Hose
MADE TO ORDER.

Nos. 308 and 310 DAVIS ST.,

San Francisco, Cal.

ALEX. BUSWELL,

BOOK BINDER, PAPER RULER

AND BLANK BOOK MANUFACTURER.

521 Clay Street, S. F.

Blank Books Ruled, Printed and Bound to Order

COMPTON & BINFORD, REAL ESTATE BROKERS

Employment and Intelligence Office, Horse and buggy free to see property. Offices at Compton, and at corner of Court and Spring streets, Los Angeles, Cal.

CALISTOGA

REAL ESTATE COMPANY.

Calistoga, with a population of about 800 persons, is a village watering place at the head of the valley of Napa, in California. It is four hours' travel north of San Francisco by steamboat and rail.

Its shipping port is Vallejo, on the bay of San Francisco, forty miles distant by rail. It lies at the head of the most charming valley in the State.

THE BEAUTIES OF NAPA.

In traversing this thirty-seven miles of fertile dale, the eye never wearies. If one ascends the side of the leafy mountains that bound the valley on either side, whether looking up the valley or down, and from whatever point of view, the scene is one of ravishing beauty.

Mounting the summit of St. Helena, which towers over all, far to the east the snowy Nevada bound the view; and to the west spreads the Pacific ocean, with its winged ships and its blue horizon. To the north are the vast forests of Mendocino, its stately trees, turned to shrubbery and Clear Lake in its pride of expanse dwindled to a mill dam.

THE WARM SPRINGS.

From the beauties of Calistoga we turn to its other attraction. The estate covers 2,000 acres of fertile land. Its warm springs are crowded with invalids, who flock to its healing waters, and who return cured of their rheumatism, their dyspepsia, their torpid livers and their tender kidneys. The medicinal elements of the hot springs are principally iron, magnesia and sulphur. In this climate, the season of water ing places is prolonged.

THE SURROUNDINGS.

By consulting a map it will be apparent that Calistoga is destined to become a commercial town of importance. It is the center to which converge innumerable highways leading to many of the richest cultivated valleys of California.

INDUSTRIAL ENTERPRISES.

A new industry is now being introduced at the head of the valley of Napa, which will give easy employment to all the boys and girls, and contingently it will support other new industries. It is but the beginning of many others. Three miles below Calistoga is selected as the site of a large factory for canning and fruiting and vegetable test now go to waste, and encouraging the production of more. In no part of California can these healthful elements of human food be cultivated more cheaply or more abundantly. Considering the depth of its rich soil, its prolonged season, and the extraordinary vegetable growth in this country, one acre may be considered equal to three elsewhere this industry is carried on in the Atlantic States. If irrigation be wanted, artesian waterflow may surely be found all along the valley, for it is backed by mountain ranges full of living waters.

MINES:

GOLD AND SILVER AND QUICKSILVER.

Calistoga is the center also of a great mountain range rich in mines of cinnabar and silver. Already its furnaces are producing mercury, and the product is increasing yearly. A number of valuable mines are now being profitably developed in the region around the base of Mt. St. Helena, at Pine Flat, on the Great Geyser road, and near Sillies' Mill, on the Clear Lake road. All of these are from ten to fifteen miles beyond Calistoga, to which point their products come, and from which their supplies are carried. The deposits of cinnabar occur in well defined veins, and as they are now being scientifically developed they bid fair to rival in productiveness the celebrated mines of New Almaden.

CALISTOGA REAL ESTATE CO.

The splendid property above described, containing 2,082 acres, divided into town lots, suburban lots, country seats, hotel property and farm tracts, has been bought by the above named company, and is now offered for sale to the public.

The Capital Stock of the Company is
\$1,000,000,

Divided into 20,000 Shares of \$50 Each.

The sale of a certain number of shares has been authorized by the Board at the rate of

Twenty-five Cents on the Dollar, Making
12.50 Per Share.

By an arrangement between the former owner and the present company, no portion of this land or the proceeds of its sale, is consumed by expense or in even the smallest degree diverted from the use and benefit of the stockholder.

Whoever buys stock in the Company receives his pro rata share of this property, with its crops and rents in the meantime, without one cent of deduction for expense of any kind, even including Taxes. And this, too, no matter how valuable the property shall become.

Unlike the homestead scheme which have heretofore attracted our people, this plan gives homes and interests in and adjoining a town already built; where trade and growth are already assured, and where daily increase gives promise of greatly added values to all its property. It is a division of this ripened heritage that is now offered to the subscriber.

TRUSTEES:

E. W. BURR,
President Savings and Loan Society.
C. HARRISON,
President Bank of Napa.
J. B. FRISBIE,
President Vallejo Commercial Bank.
JULIUS WETZLAR,
Pres. Capital Savings Bank, Sacramento.
COLONEL J. P. JACKSON,
San Francisco.

WILLIAM H. MARTIN,

GENERAL AGENT,

Cor. Webb & California Sts., San Francisco.

BANCROFT'S
MUSIC ROOMS,

Second and Third Floors, Bancroft's Building.

General Agency for

KNABE PIANOS.

No other instrument has such a strong, unblemished and secure reputation to-day as the Knabe Piano. It is the only AMERICAN PIANO that finds a sale among the titled and wealthy families of Europe, where intrinsic merit determines the choice. Wherever the Knabe Piano has been introduced, in cold or hot countries, in wet or dry, it holds its exquisite quality of tone unpaired, and retains in perfect condition its powerful yet delicate action under long and hard use. The great centers of civilization in Europe and America to-day recognize the Knabe Piano as without a superior in any essential of a first-class instrument. The Knabe Piano stands unrivaled in reputation in the great cities of New York, Washington, Chicago, Cincinnati and New Orleans.

United Piano Makers' Square and Square Grand Pianos.

Hardman Square Grand Pianos.

McCammon Square Pianos—small size.

Fischer Square Piano. Very Low Priced.

Cycloid Pianos with Crescent-shaped Back

Pleyel Grand and Upright Pianos.

Dibain Upright Pianos.

Chappell Upright Piano.

ALSO GENERAL AGENTS FOR

Prince Cabinet Organs and Melodeons, Vogel & Hughes
Nonpareil Cabinet Organs, Manning Organ
Co's Parlor Organs,

COMPRISING ALTOGETHER

The Largest and Most Complete Assortment of Pianos and Organs to be found in any one House on the Pacific Coast. Instruments Reliable and Fully Warranted. PRICES VERY REASONABLE. Also

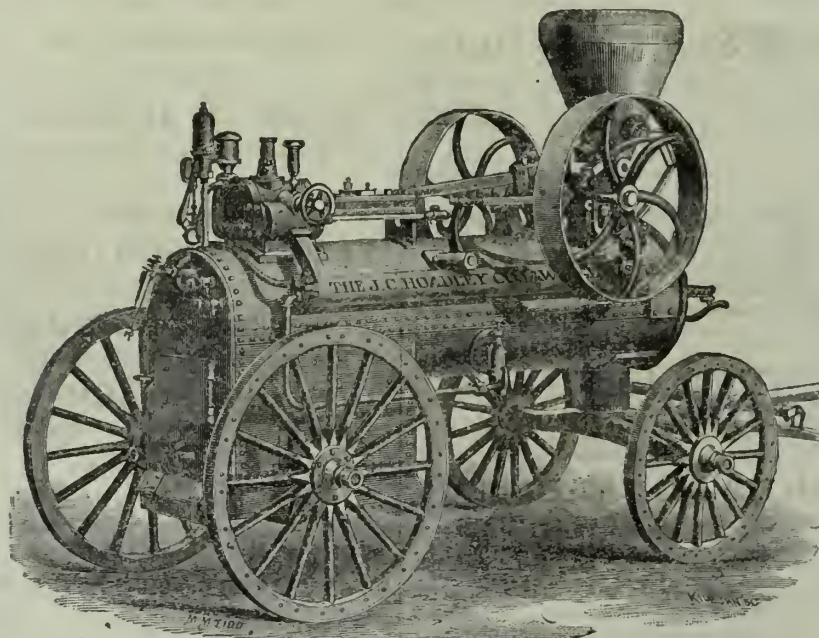
Sheet Music. A LARGE, FRESH STOCK AND COMPLETE ASSORTMENT OF SHEET MUSIC and Music Books.

Guitars, Violins, STRINGS, ACCORDEONS, FLUTES AND A GENERAL ASSORTMENT OF Musical Merchandise at Reasonable Prices.

Good Bargains TO BE HAD AT BANCROFT'S MUSIC WAREHOUSES. OLD PIANOS TAKEN in exchange for new. Pianos sold on installments. New and second-hand Pianos sold very low. Call and examine Stock.

A. L. BANCROFT & CO.,

No. 733 Market Street, San Francisco, Cal.

The Hoadley Regulating Cut-off
THRESHING ENGINES.

The above cut represents the Hoadley New Style Threshing Engine, 15-horse power, with Patent Cut-off Governor. We also have the same style and size, with HOADLEY'S NEW PATENT STRAW-BURNING FIRE BOX. This new engine has been thoroughly tested, and we are prepared to warrant it to give satisfaction. OUR GUARANTEE GOES WITH EVERY ENGINE INTO THE FIELD. This new engine is fitted out complete, with High Seat, Foot-Board for Driver, California Roller Brake (not shown in engraving), Iron Hub, Patent Wheels, Forged Bent Axle, and all Mountings in Perfect Order.

T H I S

Hoadley Straw-Burning Threshing Engine

Is no heavier than wood-burning engines of same power, and is unquestionably the Best Threshing Engine in the world. It is lighter, Better Made, Safer, and will do More Work than any other engine of same size and price ever built. THIS FACT IS INDISPUTABLE.

Farmers and Threshers desiring to buy Straw-Burners for coming season, should secure their Engines Early, as the number is not large, and many are already engaged. All Engines will be tested in presence of customers, when required. Send for Circular and Prices. Address,

TREADWELL & CO., Sole Agents, San Francisco.

The PACIFIC RURAL PRESS is, for the Pacific Coast, the most valuable paper published in the Union. It is precisely adapted for this part of the world. As an exchange it is invaluable, giving a complete view of climate and crop all over the coast. The only fault about it is that the mailing clerk forgets us sometimes. Will he take a hint?—Southern Californian, February 18th.

One of our most valued exchanges is the PACIFIC RURAL PRESS, published by Dewey & Co., San Francisco, California. Every number contains a large amount of general news from the far west, besides much valuable information in the way of Grange news.—The Farmer's Friend, Mechanicsburg, Pa.

1874. GUIDE AND CATALOGUE 1875.

FREE.

To persons contemplating purchasing I will send my LITERATED, DESCRIPTIVE CATALOGUE and GUIDE to the VEGETABLE and FLOWER GARDEN without CHARGE. It contains the most extensive and valuable list of



Flowering Bulbs, Roots and Plants, Semi-Tropical Trees, Ornamental Shrubs, Fruit and Shade Trees, etc., ever offered in this market. It tells how to successfully grow the Australian Blue Gum, the Monterey Cypress, Pine, etc., and the proper method of Cultivating Tobacco on this Coast.

My stock of Seeds is in part my own raising and in part direct importations from the best European and Eastern growers, and is unsurpassed in all respects by that offered by any other establishment. 100,000 Australian Blue Gums and Monterey Cypress in boxes at from \$80 to \$50 per 1,000, raised at my own Nursery at San Rafael.

R. J. TRUMBULL,
Grower, Importer, Wholesale and Retail Dealer in Seeds, Shrubs, Trees, etc.

2078-6m-16p 427 Sansome street, S. F.

NEW CROP OF

BLUE GUM SEED.

GRASS AND CLOVER SEEDS.

FLOWER AND VEGETABLE SEEDS.

TREE AND FRUIT SEEDS.

OF EVERY DESIRABLE VARIETY AND OF THE BEST QUALITY; OFFERED AT WHOLE SALE OR RETAIL, BY

GEO. F. SILVESTER,
SEEDSMAN,

No. 317 Washington Street,
SAN FRANCISCO

NEWARK
LAND COMPANY.

San Francisco Bay, Alameda Co., Cal.

Title Perfect. Incorporated.

The NEWARK LAND COMPANY is now assuming shape; the Guarantee Fund paid in. This Company will be prepared in March to take 3,000 people by steamboat and railroad to their town and lands in one excursion, which will be advertised. By reference to the Coast Survey Chart it will be seen that at Potrero Point, in front of Newark the deep water comes all the way through the channel from the Pacific, with the C. P. R. running in a direct line through Livermore Pass, making this the connecting point between all parts of the United States, and by deep water to all parts of the globe and the greatest manufacturing point on the Bay of San Francisco—plenty of water, good climate, excellent soil and easy communication. This land will be sold at auction in April, in acre and lots. This company will commence active operations in building, etc., soon. For all information, circulars, maps and subscription, apply at the office of the company, 405 1/2 California street, basement, opposite Bank of California, San Francisco.

CHAS. R. PETERS, Manager.



Rowlands' Macassar Oil.

Preserves, strengthens, and beautifies the human hair; makes it grow thickly on bald places, and eradicates scurf and dandruff; has been in use all over the world for the last seventy-five years. ROWLAND'S ESSENCE OF TYRE changes red or grey hair to a permanent brown or black. Sold everywhere by all druggists, chemists, and patent medicine dealers. Ask for Rowlands' articles, of 20, Hatton Garden, London, and avoid imitations.

SEEDS. PLANTS.
OF EVERY VARIETY.

Fresh and reliable, such as experience and care only can select.

GRASS AND CLOVER SEEDS, KENTUCKY BLUE GRASS, HUNGARIAN, ORCHARD, ITALIAN RYE, RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL, CHOICE CALIFORNIA ALFALFA, WHITE CLOVER, RED CLOVER, Etc.

Also, RAMIE, JUTE AND TOBACCO SEEDS; together with a fine and complete collection of TREE SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGANTEA, PINUS INSIGNIS, Etc.

For Sale, wholesale or retail, by

B. F. WELLINGTON,

(Successor to E. E. Moore).

425 Washington St., San Francisco. 22v7-1y

WE regard the PACIFIC RURAL PRESS as one of the ablest and best of our agricultural exchanges.—American Patron.

PACIFIC RURAL PRESS

Volume IX.]

SAN FRANCISCO, SATURDAY, MARCH 13, 1875.

[Number 11.]

The Home Hunters.

The increasing interest which the people of the East are manifesting towards California is made apparent to us in several ways; conspicuous among which is a growing demand for our paper, and an increased correspondence from the Eastern States; the principal topic being enquiries concerning California as a place for future homes. Many of these enquiries have been answered through the columns of the Press. Among those awaiting an answer is the following:

EDITORS PRESS:—I wish to get some information regarding California with the view to coming there with my family to locate for life. Is there not a monthly or quarterly publication printed in your city called the *Resources of California*? Is there a good map of California, not very expensive? If you have any printed matter giving late and reliable information about the resources of California and the progress being made in developing your famous State please advise.

There is a spirit of unrest here in the old Empire State, on account of the severity of our winters and hard times. The grasshoppers have put a damper on Kansas, Nebraska and Colorado and I hear more talk about emigrating to California or the South than ever before.

I got your address from the *Prairie Farmer* of Chicago, which speaks very highly of the energy of the Patrons of California. The statement is made that the State Grange have established a bureau for selling lands and the encouragement of immigration into the State, etc.

I have a neighbor recently returned from a trip to California. He says it is a good place for rich men but no others. He complains that most of the good and really desirable land is held at unreasonably high prices by speculators. He claims that it is difficult for the man of moderate means to get a 10, 20 or 40-acre lot in a good location and with good neighbors at a reasonable price. He says that Chinese, Mexicans and Indians and lawless "Thugs" of other nations are entirely too plenty in many localities. He says there is no morality and no Sunday in many places. How is it about these things? Let us have the drawbacks, the bad as well as the good. I have read a pamphlet entitled "All About California," sent out by the Immigrant's Union in 1872. Want something later. Allow me to hear from you and very much oblige.

A. BABCOCK,
Syracuse, New York.

In answer to the above we would say: The *Resources of California* is a monthly, and is still published. Those who desire to keep duly informed as to the Pacific coast, and more especially its industrial interests, would do well to subscribe for the *PACIFIC STATES INDUSTRIAL GUIDE*, a semi-monthly journal which we are now publishing. It is an attractive illustrated paper, containing a large amount of reliable information. The publishers, realizing the need of an industrial journal of this character, have just issued the first number of the above. There is no California publication so well adapted to Eastern circulation. The price is only \$2.00 a year.

In regard to maps, we would recommend Holt's pocket map of California, which costs \$2.50.

The "spirit of unrest" alluded to by our correspondent is not by any means confined to the old Empire State. The severity of the winters and bad times in other States, are turning a stronger tide of emigration toward California than was ever known before.

For full information in regard to the State Grange Bureau, in connection with emigration, we would advise our friends to communicate with the same, addressing W. H. Baxter, No. 6 Liedesdorff street, S. F.

It is rather hard on us to be called upon to answer silly, unfair statements, as those made by "a neighbor, recently returned from a trip to California." It is certainly discreditable to the intelligence of Eastern people that they allow these bugbears to go about seeking whom they may frighten from coming to California. Among the objections enumerated by

this neighbor, the first is nearest the truth; namely, in regard to the large amount of good land in the hands of speculators. These shrewd, far-sighted men were the "early birds" who caught these now desirable worms, and we fancy that those who come out at a later hour in the morning will be quite as reluctant to disgorge their possessions a few years hence. Still, it is not "difficult for a man of moderate means to get a 10, 20, or 40-acre lot, in a good location, with good neighbors, at a reasonable price."

As to the "Chinese, Mexicans, Indians, and lawless 'Thugs' of other nations in many localities," we would state, most emphatically, that there is no portion of America so preemi-

nation with this subject—we should prefer California to New York. We hear a good deal about industry, frugality and moral rectitude being in great demand here, and it is evident that on being informed of this fact our Eastern neighbors are disposed to believe that these are rare qualities here, and are apt to conclude that the ordinary Eastern man or woman, boy or girl, will, on coming here "astonish the natives" in regard to pluck, moral virtue, and perseverance. Now we would like to see the public mind disabused in this respect—and in this we are not prompted by any sensitiveness, for Californians consider it a pretty good joke—but we have observed some mortifying disappointments growing out of this mistake, and

number of its inhabitants, San Francisco has as many churches as New York, and that they are as largely attended and liberally sustained. And, be it understood, San Francisco is to California what Paris is to France.

A GOOD WINTER FOR SHEEP.—The winter just passed has been unusually favorable to farm stock of all kinds. The difference between a good winter for stock and a bad one, will tell very perceptibly in the agricultural returns of the year. The comfort and welfare of the animals is a matter of deep interest; but the addition which this will give to the earnings and profits of the various departments of our stock, will add greatly to the wealth of the State.

In connection with sheep the past winter has been especially favorable. We have advices from sheep raisers in various parts of the State, showing the increase thus far, exceeds that of any previous season.

THE COMING STRAWBERRY SEASON.—In about two weeks we may expect the opening of the strawberry season. Present indications warrant sanguine expectations on the part of the vast army of strawberry eaters. Some have predicted a surplus, and that the growers would not receive pay for labor and investment. It is to be hoped that this will not be the case; and we have faith that the expected increase of supply, will create a corresponding increase of consumption.

ABOUT GREEN PEAS.—We have just received a note from a gentleman of Harrisburg, Alameda county, asking: "Whether there are any green peas in market, and if so what is the price?" Of course there are. Green peas have been in the S. F. market nearly four weeks, and are now selling at 5 to 5½ cents per pound by the sack.

The Contra Costa county people are, it seems from the *Gazette* of the 27th ult., bound to wage an unrelenting warfare against the squirrel until their extermination is assured. The *Gazette* says: "We know that we must destroy the squirrels or ultimately abandon the land to them, and the sooner we determine to do one or the other the better and more profitable it will be for us."

On the Cosumnes bottom, says the *Sacramento Agriculturist*, heavy crops of corn are raised; after the water has passed off, a heavy sediment is left of richness, which, when powdered, is valuable for corn, pumpkins, potatoes; large numbers of hogs are raised and fattened every year.

A CORRESPONDENT of the *Tulare Times* write from Linn's valley that the farmers in that neighborhood have about finished sowing all the land they intend to cultivate in grain or hay, and are now busily engaged in preparing their land for a more extensive potato crop than ever grown in that valley.

The *Southern Californian* advises farmers to plant more grain this season and stop importing from San Francisco. It will require 100,000 sacks of grain this year to supply the Cerro Gordo freight company alone.

The *Hollister Enterprise* of March 6th says that last year's stock of wheat is going off very rapidly. There is a less quantity on hand in this locality now than at this time last year.

A CORRESPONDENT of the *Vallejo Chronicle* says there never was a better prospect of an extraordinary crop of wheat and barley than at present, in the Montezuma hills.

Farmers in the neighborhood of Calaveras say the growing grain is so rank that many are obliged to turn their cattle into the fields to eat it off. They don't want any rain at present.

A grape grower at Vacaville still has some good fresh grapes of last year's crop which he is keeping as an experiment to see how long they can be preserved now.

The *Ukiah Dispatch* says the farmers around Bridgeport are not intending to put in wheat but are devoting all their time to potatoes, as that crop is much more certain.



ONE FORM OF TRANSPORTATION.

nently American as California. It is true that nearly all nations are represented here, many of them quite largely. National characteristics are respected here, and we do not hear a tithe of the complaints about "clannishness" that prevails in the Eastern States, where there are fewer nations represented, and those few in much smaller numbers than here.

As regards "no morality, and no Sunday in many places," our correspondent asks "how is it about these things?" Well, we don't like to draw comparisons in these delicate matters, but you Eastern folks often drive us Californians into a corner, allowing no escape but by a counter comparison. Allow us to give you our own observations in this matter: It is New Yorkers who are at present under consideration. Now, we have lived in the Empire State something over half a century, and have been in California about five years—long enough to catch the tone of society. We think we know morality when we see it, we are proud of our native State, as all New Yorkers are, and "sage experience bids us this declare," that in bringing up a family of children—and this is the most serious of all considerations in con-

nection with this subject—we should prefer California to New York. We hear a good deal about industry, frugality and moral rectitude being in great demand here, and it is evident that on being informed of this fact our Eastern neighbors are disposed to believe that these are rare qualities here, and are apt to conclude that the ordinary Eastern man or woman, boy or girl, will, on coming here "astonish the natives" in regard to pluck, moral virtue, and perseverance. Now we would like to see the public mind disabused in this respect—and in this we are not prompted by any sensitiveness, for Californians consider it a pretty good joke—but we have observed some mortifying disappointments growing out of this mistake, and

And while we are on this somewhat delicate strain, we will take occasion to say to farmers who are thinking of emigrating to California: Endeavor by all means to dispossess yourselves of those conceits which find expression in the too-hackneyed sentence, "I'll show 'em how." Don't come here as agricultural missionaries, as you will find your new neighbors quite as competent and as progressive in agricultural matters as those you left behind you, no matter where you hail from.

We come now to the Sabbath question, and to this we would like to devote a special article, for there are some points here that require a fuller explanation than we can now give. Our Sunday habits—outside of the church—do not correspond with those of Eastern people. These differences find a ready explanation in the cosmopolitan character of our people, and the nature of our climate; but we do not hesitate to declare that, in proportion to the

CORRESPONDENCE.

[The RURAL PRESS, in opening the columns of this department to its correspondents, does not desire to lay before its readers anything which is not in keeping with its character and position as an agricultural and family paper. Facts are always thankfully received; and suggestions and matters of opinion on subjects connected with agriculture are also acceptable; though correspondents are to be understood as speaking for themselves and not for the PRESS.]

From Our Southern Journeys Correspondent, A. C. K.

No. 1.

In Los Angeles County.

MESSRS. EDITORS:—The steamship "Ventura," (G. N. P. line) left the wharf at San Francisco Saturday last, at 9 A. M., and reached San Pedro bay March 1st, at 5 A. M., whence passengers were transferred to Wilmington, six miles, in a small steamer. This place is twenty miles from Los Angeles, and is the shipping point of the S. P. R. R., (Los Angeles division,) where they have located their machine shops and other works.

Wilson College—founded by Hon. B. D. Wilson—is located here, numbering about 70 to 80 pupils. It commenced operations August, 1874; chartered, January, 1875.

A grove of Australian Gums was planted some fourteen months ago in the college campus. Some of these have grown from the seed to a height of from ten to fifteen feet.

While the climate and soil around Wilmington is very fine, little attention has been paid to agriculture. The neighborhood is chiefly devoted to sheep.

Wilmington, March 2, 1875.

More About the Rattle Weed.

EDITORS PRESS:—I see in the last number of your valuable paper, some remarks on the rattle weed. You ask for any information in regard to the weed that might be of interest or benefit to the general public. I have lived 20 years in a rattlesnake section of country, the southern part of Merced county, and know something by actual test and experience that may not be generally known.

There are several theories, even here where the weed grows in abundance, in regard to the disease among horses called by the Mexicans "loco," meaning crazy. Some believe the disease is brought on by the animals drinking very foul, stagnated water, which is often found in small lakes and pools on the plains. But that this theory is incorrect I am very positive. Another theory is that the animals inhale the strong alkali dust which covers a great part of the plains bordering on the San Joaquin river, this theory I am equally positive is incorrect. Some think the animals in trying to pick up feed (when the ground is nearly bare, which is often the case in the midsummer) gather up dirt and especially sand which passes into the stomach and will not digest, and as most imperceptibly makes the horse "loco."

Other theories exist, but they are all wrong; but one, the rattle weed theory, is correct. Now for the proof. In 1853, one of California's dry seasons, a resident of Merced county, having a number of stock both cattle and horses, took them on the Chowchilla river to keep them through the dry season. On the Chowchilla there is a kind of coarse grass which grows and keeps green all summer, besides plenty of salt grass. The stock were watered by a horse pump, and, bear in mind, there was no water in reach of this stock only as it was pumped; feed was plenty, there being an abundance of green grass one foot high. The horses were watched and brought in to water twice each day. Some of them soon began to show symptoms of approaching disease. They were then watched more closely, and some of the horses, after drinking, would start off immediately, and without stopping once to take one mouthful of feed, would travel 2½ and 3 miles to where there were plenty of the rattle weed, and commence feeding at once, and would eat nothing but the weed, and many of them became "loco." Now these horses did not drink bad water, they did not inhale alkali dust, neither did they eat sand; they touched nothing but the rattle weed. The proof is, therefore, positive; there is no room for doubt left; and there seems to be no remedy, at least no preventive. A horse once "loco" is almost worthless. Sometimes a young animal will recover from the effects, but older ones never. Horses are very fond of the weed, and will eat nothing else when they can get it.

The weed remains green all summer in this locality. On the celebrated ranch of W. S. Chapman & Montgomery, I suppose there is 40,000 acres under fence, with ten or a dozen artesian wells supplying an abundance of pure water; but the ranch is cursed with the rattle weed in profusion. A year ago Mr. Chapman said to the writer he thought he should put on a force of Chinamen with mattocks and have them dig it up to a considerable depth beneath the surface. Mr. C thought it would not spring

up again from the root, whether he tried the experiment or not I do not know. As far as my own knowledge goes this rattle weed has no bad effects on cattle or sheep, or any other animal but the horse. Hoping these few thoughts may be of some benefit in solving the "Loco" question, I am respectfully,
T. J. E. WILCOX.
Plainsburg, Feb. 26, 1875.

Alfalfa in Orchards—Scuppernong Grape.

EDITORS PRESS:—I write you for information about sowing alfalfa in orchards, etc. We learn from the RURAL PRESS that you do so successfully in California and Nevada. As yet, we know but little about it in Alabama; but if it will do half as well with us as with you, it will be a great advantage to our stock, which, as a general thing, is left to shift for itself in the woods and old fields. Ours is not a grazing country, and yet if proper grasses were tried, and the necessary means employed, I think we might raise our own forage, instead of depending on northern and western markets for it. I'll enclose a small pamphlet which will give you a better idea of our soil, climate and productions, than I could in this letter; but what we wish to know, as soon as you can find it convenient to enlighten us, is your opinion about putting it in our orchards, and turning it under, thereby fertilizing our rather barren soil. We are troubled a good deal with curculios and borers, the latter attacking alike our apple, peach and plum trees to such an extent that some years our fruit is rendered unsaleable in consequence; and this only remedy so far as our experience goes, is to search the roots of the trees in winter and get out all we can find, and sometimes in summer, too, we "go for them," and with all our trouble and pains, cannot get rid of them only for the time being.

Now a word about the Scuppernong grape; what do you know about it? Is it cultivated in your "vine growing country," and with what success? With us, it is the grape par excellence, readily and rapidly grown, too late in putting out for the frosts of early spring; has no enemies in the matter of worms, bugs, etc.; yields prodigiously; is of delicious flavor, and makes (as we think) the very best wine ever drunk as yet. This manufacture of it is in its infancy, confined entirely to a few private individuals, scattered through the southern portions of Alabama and Mississippi, although it is grown successfully in the Carolinas and Georgia. Our treatment of the vine is unlike that of any other grape vine. We never prune it, but every year enlarge the arbores and let it run; and it is a fast traveler for a vine, I assure you. If you have had any experience in the cultivation of it, please tell us how you do it; if you prune it or not.

Also tell us if alfalfa can be grown in our orchards and cut for hay, as well as to turn it under.

I said ours was not a grazing country, and yet Southern people do not so consider it, for the old fields and woods are covered with a tall, coarse grass; but none of the fine grasses, such as grow North and East, are to be found here, unless cultivated; and not much of that is done, most people thinking that corn and cotton are the almost only products that are worth raising. However, since the war, farmers are beginning to think that they can have a little variety, and are growing and experimenting with sugar cane and different kinds of "truck," all of which, no doubt, will yield them an abundant profit.

Hoping to hear from you through the RURAL (to which my brother, Geo. Moore, late of Nevada is a subscriber) as soon as practicable, we are, very truly,
MRS. CHAS. WILLIAMS.
Citronelle, Mobile county, Alabama.

[From the description of Mobile county as given in the pamphlet sent us, we can see no reason why alfalfa would not do as well there as in California. In regard to moisture it would probably have the advantage there. It would undoubtedly do well in your orchards, and turning under a crop of it occasionally would be the most economical method of fertilizing their soils. If you wish to seed your orchards to permanent meadows, in the northern and eastern manner, it would be well to consider the abundance of curculios, grubs, etc., as a permanent seeding would favor their increase, whereas cultivation provides a partial check to their increase. Tracing out and destroying them in the manner described above will afford still further aid in this important work; but if thorough extermination is desired, still more effective measures must be used. Our correspondent will find on another page of the present number of our paper a bit of advice in regard to washing trees, which will be found available in such cases as she has described.

In regard to the Scuppernong grape, we can also say that we are earnest seekers after knowledge concerning it, and thus far have been able to learn nothing of its record in California. We thank our correspondent for her suggestions on the subject, and hope they will induce our readers to give it a trial here.—EDS. PRESS.]

A CYPRESS TWIG.—EDITORS PRESS:—I send you a specimen of cedar that grows here, and would like to have you give us the name and oblige a subscriber.
G. B. KNEELAND.
Arcata, Humboldt Co., Cal., Feb. 26, 1875.

[It is a twig of the Lawson cypress—Cupressus Lawsoniana.—EDITORS PRESS.]

Barren Fig Trees, Orange Seeds, Etc.

EDITORS PRESS:—Allow me to ask you for information, and by answering you will not only confer a great favor on me, but on hundreds of the readers of the PRESS, who are in need of the same.

About a year ago I saw in your excellent paper how to change worthless fig trees to bearing good fruit. Please inform us which is best, budding or grafting, and when is the best season to do it? Where orange seed can be got for planting; the season to plant; and the best way to propagate the same? Information on these subjects are not easily obtained, therefore we appeal to your font of knowledge.

J. R. TOTMAN.

Colusa, March 1st, 1875.

[Barren fig trees can be, and have been, converted into tolerably good bearing trees, both by budding and grafting, but the economy of so doing is questionable. In the case of apples, pears and other fruit that is late in coming into bearing, it is, of course, very desirable to have a mature stock to graft upon; but with figs it is different. Trees can be bought for twenty-five and fifty cents each, that will, in a year after planting, begin to bear, increasing rapidly in productivity. These suggestions, however, may not be applicable to the case of our correspondent, and if he wishes to graft or bud his fig trees, he should do it immediately. From the 1st of February to the 25th of March is admitted to be the proper season. Either graft or bud at once, or head back the tree that it may throw out new shoots for grafting next season. We would advise budding in preference to grafting, as in the former you escape the annoyance of suckers.

As to "where orange seed can be got for planting; the season to plant; and the best way to propagate the same," we would say: dry seed are unreliable, take decayed oranges—endeavoring to obtain those that were thoroughly ripe before picking—and plant and propagate as you would peach, plum or other fruit trees, but in transplanting, remove the earth with the roots, as with all evergreens. It is rather costly to plant now; a month later would be better.—EDS. PRESS.]

Pioneer Horse Dead.

EDITORS PRESS:—The renowned "Old Nigg," belonging to Andrew Goodyear, of Solano county, and known in almost every early mining camp on the coast, died a few days since at Mr. Goodyear's ranch, five miles back of Benicia, where he was buried with the respect due his age and ever faithful services. With ample stone monument carefully laid up the whole size of the grave with elevated piles in pyramidal form at each end. Mr. Goodyear bought him from Don Pio Pico, in December, 1847, supposing him to be at that time about ten years old, making him, at his death, over thirty-seven years old.

He carried his owner back to Missouri in 1848, and returned to California in 1849. Had champed his bit in almost every mining camp in the State; showing remarkable powers of endurance, making for himself hosts of friends and admirers. Was present to answer to the roll call of the twenty-fifth pioneer's birthday celebration in San Francisco; but by an oversight of grand marshal was not assigned his place in the grand procession. This oversight gave him more time to review his old exploits with his early acquaintances, when he did carry his master easily and gracefully one hundred miles in twelve hours. But he has peacefully passed away, and as far as is now known, was the oldest and best of his kind known on this coast, and was serviceable and faithful to the last. Farewell old Nigg.
C.

Benicia, Feb. 28th, 1875.

Straw Burning Engines.

EDITORS PRESS:—Further trial of King & Perkins' straw burning attachment was made in the public square to-day, grinding 1¼ tons of barley with 24-inch mill in 54 minutes running time. This was a less favorable trial than the one made at the same place on February 6th and reported in the RURAL PRESS of 27th February. They started the engine to grind with 126 lbs. of steam; after running 42 minutes they stopped for steam, gauge showing 46 lbs. and water 1½ inches lower in boiler than at the start. After stopping 11 minutes they had sufficient steam to start up again and run 12 minutes, at which time they had done grinding. Boiler held for steam at even pressure during last run of 12 minutes. It will not be profitable to thresh with this straw burning attachment, unless they obtain better results than the above.
J. W. RILEY.

Stockton, Feb. 27, 1875.

[Our advertising columns will give information of other burning engines. We can refer to Mr. Rice, of Haywards, as a pioneer inventor and manufacturer of this class of burners.—EDS. PRESS.]

THE LATE RAIN AT LOW BAY.—EDITORS PRESS:—After three days hard blowing from the northwest the wind changed round to south. A gentle rain of .17 of an inch fell from noon to till 4 o'clock on the 2d of March. More rain is anticipated to secure a good crop.

ADOLPH WEILMAN.

Los Banos, March 3d, 1875.

All About Castor Beans.

The castor bean belongs to the numerous botanical order of *Euphorbiaceae*—in common language Spurge,—and of the family known as *Ricinus*, which is the Latin word for tick, and is so called from the perfect resemblance of the seed to the body of a full tick.

Varieties.

There are about a dozen varieties, all natives of the tropics, where they mostly attain the size of trees. A variety from Central Africa will in the soil and climate of King's river, with irrigation, make a growth of twenty feet in a single season. One from Brazil will make usually as great a growth, and throws out near the ground, a profusion of branches with an abundance of highly ornamental foliage. Either of these large varieties planted with one or mors of the kinds of smaller growth will make a very

Beautiful Hedge

With which to surround gardens, grass plots or residences. But beware that your beans are planted where no stock can ever get to them. Horses, cattle and all kinds of stock will eat the green foliage of these plants with avidity during the dry season, and where any quantity is eaten, either of leaves or seed it is

Sure Death

To horses, cattle or sheep. Of swine or goats I have no positive knowledge of whether it would prove fatal or not. A friend who sits by me says he is going to fence his farm with a castor bean hedge, it will be far better security against the incursions of stock than any stock or no-fence law.

Planting Field Crop.

Select good land that will raise corn. Castor beans will make a good crop where corn will ripen, but on land where from dryness or other cause corn will not mature you need not expect to succeed with castor beans. Plow deep, and harrow; mark off your rows five feet each way but leave a space seven feet wide between every fifth row. Plant as soon as frosts are done, at the same time and in the same manner as you would plant corn. Sows, however, prefer to soak the beans from six to twelve hours in very warm (not boiling) water, this is very advantageous when from any cause you are not planting till late in the season, as by this means you will hasten the period of germination at least a couple of weeks. The culture is the same as for corn. Thin out to one or two healthy plants in each hill as soon as they are beyond the danger of being destroyed by cut worms, which are the only foe you have to contend with, the castor bean being proof against all the other enemies to field crops; and are especially valuable in aiding to rid a farm of moles, squirrels and gophers, they in many instances leaving the land for several years where a castor bean crop has been raised.

Kind to Plant.

If you are in a locality subject to severe frost—to freezing that would kill the plants every winter—you should plant the small or what is known as the Illinois bean, but here in Fresno county any variety will stand an ordinary winter, and probably some of the larger varieties which produce throughout the season for a series of years, will be found to pay better than the Illinois bean which produces bountifully but for only a short season.

Harvesting.

You can tell when your beans are ready to harvest by the cracking of the pods. If there is one bean cracked on a pod that pod is ready to cut. The lower pods ripen first. The manner of harvesting is to take a sled, put on a large box, drive your horse through the wide row, and gather from each side. Haul to your floor which should be made like an old-fashioned threshing floor, and inclosed with a close board fence four or five feet high. Throw your pods on the floor inside of this inclosure to the depth of three or four inches, and leave them exposed to the full rays of the sun. In three or four days they will all have popped out of the pods which can then be raked off and a new supply laid upon the floor.

Gather your beans at least once a week or you will lose them and seed your ground for a volunteer crop, by their popping out of the pods as soon as fully ripe.

A good hand will keep five or six acres well gathered. The yield will range from fifteen to sixty bushels per acre yearly. The price of seed, where to obtain it, and the price that will be paid for the crop are matters that should be made known through your advertising columns.

W. A. S.

Wheatville, Cal.

IMPROVEMENT IN STRAW-BURNING ENGINES.

I notice in your issue of the 27th of February an article on a straw-burning engine, containing the following paragraph: "To burn straw successfully in a fire-box boiler it must be fed steadily all the time. This can be done by a pair of rollers placed where the fire door now is, and run with a belt from the engine shaft, thereby keeping a small but constant stream of straw going in." Permit me to inform your readers that this method is protected by patents No. 144,241 and 148,823, for which I am the agent. Yours obediently,
ERNEST L. RANSOME.

San Francisco, March 3, 1875.

THE DAIRY.

Commercial View of the Dairy Business.

At the late convention of the American Dairymen's Association, an address was delivered by Mr. J. M. Peters, of the New York Butter and Cheese Exchange, on "Our Dairy Products." The paper was a commercial showing of the cheese and butter trade. A close alliance of all branches in the dairying trade is admitted on all hands as essential. The outlook shows a most cheerful trade during the past year. In other trades the reverse of cheering is often seen, for conspicuous instances, the iron trade. Even the luxuries of food have been moved with difficulty, but there has been a steady demand for agricultural products. There has been no shrinkage in values in agricultural products commensurate with the shrinkage of other commodities, and the shrinkage in dairy product price has been least. The speaker predicted that the dairy would become the leading interest in this country in place of King Cotton. He adduced statistics showing the steady and large increase in butter production and trade during the past few years. A method of obtaining statistics is now in use which gives desired thoroughness. The annual traffic in butter in New York city alone is estimated at \$21,000,000; average price of both Eastern and Western butter, 30 cents per lb. He referred to the export trade, and found encouraging inducement for export as a means of relieving the American markets of surplus stock, which deteriorates on holding. The exchange now grades butter thoroughly, and leaves each grade to find market outlet, the substantial basis of supply and demand governing. The difference of first and second grades is widening. There is a difference of 6 or 8 cents between the two prices. Eastern butter is mostly firsts, and State butter is not nearly all of that grade. He urged upon dairymen a more unbiased judgment of their own goods; they should look upon exceptional sale as governing the price of the bulk of butter ready for market. Little Western butter is above second grade, and for this an export outlet is needed. Hudson river counties butter finds highest prices, and it is upon the high prices obtained for this that expectations of high prices are based. This is the table butter, and between this and butter of commerce there is no connection. The distance over which Western butter comes and the rough handling it receives in transit destroy its freshness and lower its price. However, the Western butter has greatly improved in the past few years. By adopting the Eastern creamery and manufacture system and better railroad facilities the standard may be raised. Metallic packages were favorably referred to. It is estimated by the Exchange the home consumption amounts to 1,387,000,000 lbs. per annum. The export of American butter raises the amount to 1,402,000,000 lbs., which at 30 cents per lb. would bring \$420,600,000. The cheese trade was now dwelt upon. The export of cheese for the year ending June 30th, 1874, were 90,611,057 lbs., which with Canadian exports made the total exports 113,794,280 lbs. The prosperity of the cheese export trade is very gratifying, but the domestic consumption of cheese has decreased. The reason should be looked for and the matter remedied. A small cheese is demanded, and dealers endeavor to obtain it. The creamery men appreciate this demand, and I speak of this because the size of their cheese is the only favorable thing I can say of their product. [Laughter and applause] He found that skimmed cheese had hurt the American cheese trade and foreign cheese is looked for. Skimmed cheese also injures the cheese trade because a pound of it lasts about as long as a pound of good cheese. [Laughter] He next referred to coloring of cheese. High colored cheese and white cheese found market in England, but there is only small market for straw-colored cheese. He commended the guaranteeing of weights in practice at the Utica and Little Falls market, and said the practice should universally hold. The statistical reports of this Association are very serviceable, and we of the Exchange ask your aid in securing monthly statements of the crop. He closed his address amid applause.

CAKED BAGS IN COWS.—A correspondent of the Cincinnati Gazette says for caked bag in a cow get ten cents worth of dry iodine; fill a teacup with good fresh lard and stir in the iodine until it is thoroughly mixed; let it stand for a day or night; stir it again and rub it in with the hand frequently, and cure is certain. Whoever employs the violent remedies should understand that they may do more than he desires. Iodine effects the secretions powerfully, and causes the absorption of tumors and abnormal growths; may it not also cause a decrease in the secretion of milk? We have found that persistent rubbing and kneading was better than anything else. If the bag be very tender, as it often is, give a teaspoonful of tincture of arnica in water and rub the same diluted with twice as much water upon the bag to take out the soreness.

KEEPING BUTTER.—I desire to pay a tribute to a profound maxim credited to an eminent dairy writer, to wit: "The more aroma in butter the less time it will keep." That is so true! It will not keep in my family. It is consumed about as fast as I can buy it at 50 cents per pound, and more is always wanted.—New York.

TO AVOID GREASY BUTTER.—L. B. Arnold says: "Churn with a pressure instead of friction. The dash churn brings butter by pressure, and makes better butter than most other kinds of churns for that reason. Butter should also be worked by pressure instead of friction. The ladle or worker should not be drawn across the butter, but pressed down upon it."

THE VINEYARD.

The Scuppernong Grape.

EDITORS PRESS:—In answer to the party from Visalia regarding the Scuppernong grape, I can give you the following information, based on 14 years experience. For the Southern States the Scuppernong grape is undoubtedly the best. It produces a large quantity of grapes, but to make in any way a wine fit to drink you have to add to each gallon of juice from one and a half to two pounds and a half of the best clarified sugar. How the grapes would be grown in this State I do not know, but I cannot think much better. We cannot by bringing a Spanish pony here expect the work of a Morgan horse. If an amateur wishes to have a variety of grapes and has at the same time a useless piece of ground and plenty surplus wood for trellise, he might get some Scuppernong grapes. To compare them with the most superior grown in this State is out of question, they could not stand a comparison.

JUTE & RAMIE.
San Francisco, Feb. 22d, 1875.
[The writer of the above informs us that his experience with the Scuppernong was principally in Mississippi. We have conversed with parties who have known it in South Carolina who give a more favorable report of it. There is reason for suspecting that it is, at least, a grape that is particularly sensitive to change of locality. It may possibly find everything to favor it in our State, but from what we can learn concerning it we are inclined to think it would not be an acquisition to our vineyards. It is a small grape, does not bunch well, is not uniform in its ripening, runs largely to wood, and the fruit has a thick, tough skin. Some of these objectionable points would undoubtedly become modified on becoming acclimated here; especially the lack of uniformity in ripening.—EDITORS PRESS.]

What Will be Lost this Year by Shipping Wheat Abroad..

It is a rather singular circumstance, that good crops throughout the world should become a subject of fear and dread to a large portion of the population, not only of California, but of many other countries. But so it is, and notwithstanding that it is very unphilanthropic; we are of the opinion that nothing would please a goodly section of our population better than to learn for a dead certainty, that this year there would be short crops in Europe. On this depends the return for their industry. Given everything favorable for crops in California and Europe, and Wheat will next August bring not a cent over \$1.40 per cental—it may be, even lower. We need hardly say that this is not regarded as a paying price. And in justice the farmers should have at least \$1.70.

They would be able to have it could they create a market at home. This market can be only created by the development of the material sources of the Coast, and the utilization of our woods, minerals, etc., in manufacture. The population drawn thus together would tax all the resources of our agriculturists to supply them with breadstuffs. The difference to the State between the consumption of these at home and their exportation abroad would be great indeed. Take the present year for instance.

To all appearances we shall have 20,000,000 centals of Wheat to export. The value of this in San Francisco will be very probably not over \$1.40, whereas, if there was a sufficient home demand it would run up to \$1.70. The difference, 30 cents on 20,000,000 centals; is not less than \$6,666,000, a sum which would nearly double the profits of the farmers throughout the State.

From this it will be seen that none are more interested in the development of the manufactures in the State than are the farmers, and the encouragement of local industries should be one of the first subjects to engage the attention of the powerful body representing them. There is no town throughout the State that should not contain half a dozen or more large factories—Woolen Mills, Foundries, Tanneries, Rolling Mills, Plow and Wagon Factories, Fruit Drying and Canning establishments, Boot and Shoe Factories, etc., and not a village or hamlet that should not contain at least one establishment devoted to some special industry for which the location was peculiarly suited. Then there would be local markets for all the Wheat that is now raised in each section. Still as the farming population would grow, the industrial would grow with it, and time would be left to look around and find other consumers for our cereals in the event of production again attaining a preponderance over consumption.

The growth of manufactures in the State is bound to be a work of time, and more or less of our breadstuffs will always be obliged to seek a foreign market; but we think that much more might be done to develop the one and to decrease the quantity of the other than has been. And were the energies of the farmers directed into this channel, we believe the results would be beneficial in the highest degree, not only to themselves but to the Coast at large.

USEFUL INFORMATION.

Forging Tools.

A correspondent of the *Scientific American*, who has evidently had much experience in forging tools, writes to that paper as follows: "My experience has been that no amount of skill and care in hardening and tempering can make a right down good tool of one not judiciously forged. In forging bring the steel to a mellow heat, and keep it so until you have your tool forged to shape. As the heat declines to black hot, compact your steel by light hammering on the face of the tool, but do not hammer the tool edgewise. Now if the tool is ready to harden, when it is heated it will swell so as to loosen up the compacting that was done by light hammering as it was cooling off. So it follows that whatever will harden the steel at the least heat will do it the best.

Use strong cold brine, and want it near the fire, so as to utilize all the heat in the tool. As soon as the tool is cool I dip it in oil (sperm or whale oil preferred). Now hold the tool over a well burnt-down fire, without the wind on. Hold the tool so as to retain as much of the oil on it as possible. Now tip it up slightly so as to make the oil flow from over the hottest part to the edge. The oil becomes a carrier of heat, and will help to let down the temper (exactly alike every time) from any thick part to a delicate cutting edge. I think the color that comes on the steel under hot oil can be depended upon much more with than without oil, although it (the color) will be a little tardy. In letting down the temper I want to do it slow enough at last, so that I can lay down the tool to cool off, and not have to dip again. But if it is going too low, I invert it, and dip the body part and leave the edge out. There are very few tools in which I like to leave heat enough in the body to let down the temper with, for this reason: as I grind back on the tool, the cutting edge is apt to get a little farther from the outside film of refined steel. This film is harder than the steel under it, so I would leave the tool slightly harder a little way back from the end; whereas, if you run out heat enough from the body of the tool you will very soon be at work with a tool altogether too soft.

Treatment of Tin Scraps.

In the manufacture of tinware it is said six per cent of the whole of the plates employed disappear in the form of scraps. The enormous trade in sardine boxes produced in Nantes, in 1869, nearly 400 tons of scraps; Birmingham produces some 20 tons per week, and Paris 50 to 60 tons per month. A small quantity of these scraps has always been used in various ways, such as the addition of a small quantity to the pig iron intended for steam cylinders; another small portion was treated by concentrated sulphuric acid, or a solution of caustic potash, but no one treated tin scrap on a large scale until a short time since. The subject has been treated by M. Kuenzel, in the *Bergund Utannische Zeitung*, and an abstract of his paper is given in *Iron*. The mode employed comprises four chief operations: 1.—Treatment of the scraps by means of boiling in water acidulated with hydrochloric and nitric acid, until all the tin is dissolved. 2.—Precipitation by means of zinc of the tin contained in the above solution and washing of the precipitate. 3.—Solution of the precipitated solution in hydrochloric acid and crystallization of the chloride of tin. 4.—Utilization of the iron scraps when despoiled of the tin.

STUPID NEWSPAPER REPORTS.—Ignorance about the most common operations of different trades does not appear to be confined only to many of our own newspaper editors and contributors, but Germany and France lately gave a striking illustration of it in an absurd report which was going the rounds of the papers there, and finally found its way into a French paper published in New York. It stated that some mischievous Frenchman had painted the four large cast-iron lions, supporting the Waterloo monument in Brunswick, Germany, orange by means of red lead, and that they could not get the paint off, but had to paint them over again with black. We supposed that almost every one knew that it is very common to paint iron, especially when rusting is feared, first with red lead ground in oil, this being a protection almost as good as galvanizing, while at the same time it causes the subsequent black paint to adhere better and dry quicker. There was evidently no mischief in the operation, it being the regular method employed by the painter who had undertaken the job, and who understood his business perfectly well.

NEW WAY OF CUTTING VENEER.—S. C. Carpenter and Dr. M. E. Williams, of Green Bay, Wis., have constructed a novel and successful machine for cutting veneer. There is a machine for cutting veneering from round blocks, but it is quite different from this. In that, machine the knife is parallel with the log, and in some kinds of wood the beauty of the grain is lost, while with the knife set at an angle it is preserved, and this is the merit of the new machine, which has a conical-shaped cutter like a pencil sharpener, and commences cutting at the end of the log, the log feeding into the knife or the knife to the log on a lathe, the veneering coming off in the shape of a scroll. The machine cuts the veneering one twenty-fourth of an inch thick, and the log would therefore cut about 24,000 feet.

A Few Hints to Foremen.

To manage a gang of men properly is a matter that requires a more thorough knowledge of human nature than falls to the lot of thousands of foremen. There are hundreds of foremen who imagine that a great deal of noise, bluster and profanity is necessary to secure the performance of the greatest amount of honest labor. This is a grievous error.

If any one will take notice of a gang of men whose foremen is sour, cross and surly, and whose mouth is always full of oaths on the slightest provocation, either fancied or real, it will be seen that the men care little for what they are doing. They always keep at least one eye on the "boss," and as soon as his "back is turned" they commence to "soldier" at once. If he leaves them for a while, they are not anxious to make a good showing on his return, for they are sure of a season of abuse, however faithful they may have been in his absence. There is nothing to encourage them to extra exertions, and all they care about is to get along as easily as possible until pay-day.

Honest, skillful workmen are not likely to stay with such a man any longer than they are obliged to, and such foremen can seldom keep other than a gang of reckless, third-rate workmen together. They are continually in trouble; but little work is done, and that in a slovenly manner. Usually this kind of men manage their work without any system or regularity. The men get in each other's way; they get each other's tools; they take hold of things at the wrong end; everything is hurry and confusion, and the foreman imagines that because he has made a great deal of noise and the men have exerted themselves tremendously he has accomplished wonders, while in reality he has done but little.

At times a dozen men are set to perform what might easily be done by half that number, at other times a half dozen men are expected to do what would require the united efforts of twice that number. These foremen do not know how much a man can or ought to do. They go to work on a job headlong, without exercising any forethought or judgment, and the latter is seldom possessed by the class of men in question. These men have a very high opinion of their ability, when the fact is they are a positive injury to any person who may be so unfortunate as to employ them.

If a foreman is of a kind disposition, possessed of a cool head and good judgment, with a friendly feeling existing between himself and the men under his charge, they need no urging in cases of emergency. A cool-headed man is usually possessed of good judgment, and knows how to place men so that they can work to good advantage. Every move counts, and work is rapidly performed without any seeming hurry, whereas the snarly, quick-tempered man will worry and fret both himself and every one around him and accomplish but little. Good nature is indispensable to the successful management of workmen, but it should be accompanied with sufficient firmness and decision to prevent any undue liberties on the part of the workmen.

In the machine shop, the foremen who has the last-mentioned qualifications will have everything shipshape. Every workman knows what would displease the "boss," and takes especial pains to have everything in good order. He does his work in the best manner, both for the praise he expects to receive from his foreman and the interest he feels in the welfare of his employers.

When a workman knows that faithful, honest labor is appreciated, he is not slow to take a lively interest in the work in hand, and it is of great importance that individuals or corporations employ no foremen who are continually at war with the men under their charge.—*R. R. Gazette.*

A FRENCH chemist claims to have discovered a means of extracting moisture directly from the air for the irrigation of land in dry seasons, thus rendering the agriculturist independent of rain or irrigation by canals. By the application of chloride of calcium to fields, meadows, roads, and sandhills, the land is made to absorb abundant moisture for three days.

THE WOOD OF THE OSAGE ORANGE TREE.—Dr. Chandler informs us that he has lately been making some double-trees out of osage orange wood that was grown upon his farm. The Dr. made several single-trees out of the same kind of wood last year, and says that it surpasses any other kind of wood for that purpose that he knows of. This timber may some day be extensively used in the wagon-making business.

A San José *Mercury* reporter took a short ride into the country a few days since, and was surprised to see such forwardness in the growth of all kinds of vegetation. Feed is everywhere good, and the volunteer and newly sown grain is all looking well, giving promise of a heavy yield. The outlook in the agricultural districts of Santa Clara valley is indeed encouraging—in fact, was never better.

A gentleman in San Joaquin county owns a flock of 2,000 ewe sheep, 1,000 of which had 2,400 lambs this season, thus increasing the flock 120 per cent. Nearly all the sheep produced twins, and twenty of them triplets.

The farmers in Sunol valley are now shipping their grain to market as fast as they can be accommodated with cars.

PATRONS OF HUSBANDRY.

STATE GRANGE HEADQUARTERS.

I. G. GARDNER, State Agent; Executive Committee Rooms; Fruit Growers' Associations, and Farmers' Mutual Life Insurance Company, all at No. 6 Liedersdorf street. W. H. BAXTER, State Secretary, at Grangers' Bank, 415 California street, S. F.

Grange Clubs for the Rural.

The Secretary (or some other Patron) is invited to act as club agent for the PACIFIC RURAL PRESS in every Grange. Circular and sample copies sent free. Five or more names will constitute a club, at the rate of \$3 a year. No new subscriptions will be taken without payment in advance. We will pay the postage after Jan. 1st, 1875. All club subscriptions in Granges should end on the last day of the month. Old subscribers may join the club by paying the Secretary up to club dates. Every Patron farmer should read a reliable agricultural paper. We need the support of all on this coast. Help the Secretary (or club agent) to make up a large list in your neighborhood. Don't delay.

NOTICE TO STOCKHOLDERS OF THE GRANGERS' BANK OF CALIFORNIA.

At the meeting of the Directors, on Feb. 9th, the following resolution was passed:

That all assessments due and not paid on Feb. 1st, 1875, shall be charged interest at one per cent. per month from that date till paid. It will be to the interest of all delinquents to give this notice prompt attention.

Also the following resolution was passed:

That on all stock taken on and after the first day of April, 1875, a premium of one per cent. per month will be placed, reckoning from Aug. 1st, 1874, on all assessments payable up to the time the stock is taken. F. A. CRESSEY, Sec'y.

San Francisco, Cal., Feb. 9th, 1875.

Secretaries will be supplied with a printed list of subscribers for this paper upon sending a list of their offices within the range of their Grange. Also with blank report, etc., for clubs.

From the National Grange.

We are gratified to announce the safe return from the meeting of the National Grange of our esteemed friend and brother Daniel Clark, Master of the State Grange of Oregon. Brother Clark personally assures us, what our readers are all well aware of from the reports already published, that the session of the National Grange was one of uncommon interest and profit—and that it was well that the annual session was held in "the ancient city by the sea." The parting of the members was not so pleasant as the meeting and stay; it called forth many tears and heartfelt farewells. A large portion of the members started immediately on the adjournment on a pleasure trip to Florida. Circumstances rendered it necessary that our Pacific coast delegation should forego the pleasures of that trip. Brother Clark hastened immediately homeward, stopping at various points along the route on matters of business connected with the Order in Oregon. He leaves for Oregon in the steamer which sails Monday. Brother Wright started from Charleston on a short visit to his family and friends in Alabama. Brother Hamilton was to make a short stay in Washington, previous to his return to San Francisco.

It has no doubt been pleasant to our readers, as it has been to ourselves, to read the published accounts of the interesting and spontaneous interchange of mutual good feeling exhibited at Charleston between the members of the Order from different sections of the Union, and between the representatives of the Order and the people of Charleston. The event has fully sustained the opinion which we expressed before the meeting that the session would inaugurate an era of good feeling which would grow and increase until it should embrace the whole country in one universal brotherhood. We fully believe with one of the speakers at Charleston, that it is a part of the mission of the Order of the Patrons of Husbandry to wipe out political animosities and reanimate the body politic throughout the Union with the soul of good will.

RAPID ADVANCE OF THE ORDER.—The Ohio State Grange is now in session at Columbus. The telegraph reports an attendance of 234 delegates at the second day's session, with visiting members enough to increase that number to 600. The rapid increase of the Order in that State may be inferred from the statement in the annual report of the Secretary to the effect that while there were but 517 Granges in the State at the beginning of this year, there are now 1,146 in good working order. Every county in the State is represented at the State Grange this year, while not more than one-half were represented a year ago. This is but an index of what is being done in a majority of the States of the Union.

STOCKTON GRANGE, on Saturday, passed a resolution that the use of the Grange or the Patrons of Husbandry, by any corporation or individual (connected with the Order or otherwise), for the purpose of carrying out any private enterprise or scheme, is contrary to the spirit and principles of that Order, and should not be countenanced by its members.

BODEGA GRANGE, No. 34.—At a recent meeting of this Grange resolutions were passed endorsing the action of the State Board of Education on the school book question.

The California Grangers' Song.—"The Reason Why."

[For the RURAL PRESS—by MARY MOUNTAIN.]

TUNE—"Little Brown Jug."

I joined the Grange six months ago,
And the reason why you soon shall know;
'Twas not to sell my wheat and corn
For a higher price, as sure's you're born.
Ha! ha! ha! the cause so grand
I did not then quite understand.
Ha! ha! ha! now I see,
It brings good times to you and me.

For six long years I've lived in the rough,
And that you'll say is quite enough
To sicken a man of a lonely life,
And I joined the Grange to get me a wife.

Ha! ha! ha! by and by,
You'll see if it does any good to try.
Ha! ha! ha! six months ago,
I had not even the ghost of a show.

Away in the middle of a four mile ranch,
A life might go and never a chance.
Leastways to one who can't forget
What a woman he has for his mother—you bet!

Ha! ha! ha! now you see,
How I fared with a chap like me.
Ha! ha! ha! to "go it blind"
I never could quite make up my mind.

Now at the hall ten miles away
I manage never to miss a day,
For there I meet the sweetest girl
With eyes like stars and teeth like pearl.

Ha! ha! ha! the weeks between
Seem longer than the years have been.
Ha! ha! ha! my ways are slow,
But "slow and sure" won the race you know.

At "Harvest Home" I helped to spread
Her dainty loaves of well-baked bread.
Such snowy white! and ruddy brown!
As "queen of loaves" she wore the crown.

Ha! ha! ha! the pork and beans
Recalled again my childhood scenes.
Ha! ha! ha! her pies and cakes
Were just like those my mother made.

This dear young girl has just the charm
To make "Sweet Home" upon my farm.
For her I'll hang the garden gate
And fast improve my whole estate.

Ha! ha! ha! flower and vine
I plant for her who'll soon be mine.
Ha! ha! ha! the paths so neat
Are ready for my darling's feet.

And now my friend, why do you wait?
Come join the Grange, ere 'tis too late.
Another girl as fair and true
May now be waiting there for you.

Ha! ha! ha! you and I
May bless the Grange until we die.
Ha! ha! ha! you and I
May proudly tell "the reason why."

Odds and Ends.

[By Sister C. A. C.]

Again the inspiration has come on Monday morning, but between keeping the pot boiling, basting the roast beef and tying wings upon my little girl's rag doll, there is not a very flattering promise of success. However, as it is proverbial that the most brilliant ideas are born of adverse circumstances, I take courage and persevere.

This time it was Mary Mountain's "Farmhouse Chat" in the last RURAL PRESS that set my mental machinery in motion, and all her admirers will pardon me for saying right here how glad we were to read another letter from her admirable pen.

After hinting that we were to have a Grange Christmas tree, I thought I would tell you what a grand success it was, but waited until after the installation of the officers of the County Council, which took place at Chico on Saturday morning of the following week.

During the afternoon of the same day, the officers of Chico Grange were installed, when one of the Grange dinners, which brother Baxter so well describes, was served (only we didn't have any "punkin" pie) but the "brouze turkey" and Grange cake were abundant and enjoyed by numerous friends of the order, who came in to note the progress made during the past year.

The following week the same was repeated at Nord, dinner being again a part of the programme, and friends from Chico largely in attendance.

Meanwhile the weekly arrival of the "Press" brought glowing accounts of similar "occasions" until in the words of "my double and how he undid me," I concluded that "since so much had been said and so well said," I would add nothing more upon the subject.

But the prospect of another "occasion" at Chico next Saturday, when all the Granges in the county are invited to meet Brother and Sister Carr of Oakland, re-awakened a train of thought which was suggested by my own observations at these festive gatherings. So at the risk of offending the uninitiated, who have not even eaten of these Grange dinners by invitation, I will say that the reality has not become wearisome to those most interested, as is proved by the pleasure manifested when ever there is a pretext for one of these social "occasions."

Of the Christmas tree a friend predicted that it would be not only "a success in present enjoyment, but the seeds of love and charity would be sown in much good soil, and produce a bountiful harvest," which prophecy was abundantly fulfilled as to the first part and we hope with reason for the rest.

The presence of several strangers on that and the subsequent occasions mentioned, reminded

me that the home so long needed in California for new comers, is at last, to a great extent supplied by the Grange.

I used to be quite unhappy at the want of sociability among the families of farming communities, when I so often heard the complaint of loneliness and homesickness from those who had left hosts of friends behind, and found here none to supply their place.

Now an improvement is already beginning to be felt, and I am sure the greeting of the newly arrived as brother or sister, must thrill them with a delightful sense of home and friends in store at least, if not yet fully realized.

I want to add my testimony as to the value of the Grange in enabling us to become acquainted with our neighbors, whom I have enjoyed so much during the past year, but am ashamed to say I hardly knew by sight before.

I don't remember that any one has suggested that at these Grange dinners we have an excellent opportunity to compare our skill in cooking, and exercise our forbearance over broken carving forks, lost crockery and stained table linen, but it all serves admirably to cement mutual acquaintance, as we always amiably conclude that the sacrifice is in a good cause, and nobody was to blame. During the winter I have read regularly several papers devoted to the interests of Patrons, but have not noticed any accounts of "Grange funeral," except the kind brother B. describes.

It appears from the "Husbandman" published at Elmira, New York, that their State Grange includes a "Ladies Committee" and judging from some resolutions reported by them at their late annual session, farmers wives have found their "sphere" or at least their hemisphere, with which we may well be content, especially as Mary Mountain, pertinently says "at this present moment women have hardly strength for present duties, real or imaginary." So if there are others awaiting the women of future generations, it would seem the very thing most important for us to do, to prepare them for it by casting off from ourselves the weights that now hinder our capabilities for physical and mental labor.

To this end and I suppose there is no more direct means, than to declare war upon this tyrant fashion, at least to the extent of adopting an absolutely comfortable style of dress. And this to me, seems after all, not so very difficult. We need not wait to call a convention of strong minded women to discuss the question and pass learned resolutions; but let every woman who feels the present style of dress to be in any manner a burden, set herself to reform it to the extent of her ability and she will soon find help from many sources, now unsuspected of intending to aid in this reform.

I don't wonder that our friend is sometimes discouraged, when really sensible people seem to care nothing about the matter; but I cannot help thinking that "the world does move" even in this much neglected, much sneered at business.

In the first place there are the two under most garments to be made in one, or attached to each other without a binding at the waist.

Demorest advertises patterns of the same in three sizes, and I have seen the same idea mentioned so often during the past few months, by different newspapers, that I almost believe the garment is going to become fashionable.

Then use skirt supporters of some sort; elastic straps, now made and sold by various houses, combining sometimes, shoulder braces; wear stocking suspenders (already fashionable) fasten the outside skirt to some sort of waist, abjure corsets, tight bands about the waist, and long skirts, and the reform is inaugurated for all practical purposes. As to ruffles, of course, as Mary Mountain, says, those who make many of them "have no time to read," so some benevolent body will need to rehearse all this talk of reform in their ears, before it can be of any benefit to those benighted ones.

But Jennie June says in a recent letter on fashion that "garments are being made plainer although she adds *solo voce*, that it doesn't seem to secure economy in the final result, as more expensive trimmings and material are required." But let us take advantage of the hint abstractly, and put away this puffing and blanching and ruffling, which is no longer *a la mode*? and already our burdens are lightened an hundred fold.

I omitted to say in the proper place that as our friend, Mary Mountain, intimates that she has original patterns which will answer all practical purposes, I have been wondering if she will not become convinced that it is her "mission" to open an emporium of health promoting under-garments, for the benefit of the Pacific coast. No doubt brother Dewey will assist in securing a patent for the same.

This brings us to the matter of shoes, and I am glad I remember Dio Lewis's recipe for securing easy fitting and consequently healthful ones.

Place your foot upon the floor, bearing your whole weight, and after your shoemaker has obtained an exact outline of it with a pencil, assure him that unless the shoe is perfectly easy in fit and low heeled you will have none of it.

I am told there is one artisan in San Francisco who actually accomplishes this, but alas for the rarity of these model knights of the last.

However, by a little firmness and perseverance upon the part of abused womanhood, their better education may be accomplished.

But the climax in every sense of the word, is this ridiculous and troublesome hat business, upon which I can speak with feeling, having

had experience. Last fall it became evident that I should be obliged to purchase something to wear upon my head, and anticipating the difficulties of the situation I set out in my search, with the determination not to be easily biased by the judgment of others; and at length found a hat frame that seemed to promise comparative satisfaction. The crown was low, and it really had something of a brim. Little dreaming that even a French woman could transform things comely into what I am tempted to term monstrosities.

I trusted the business of covering and trimming to a professional, and in a day or two went to examine the result. With a good deal of incredulity and considerable vexation I examined the structure which was exhibited with apparent pride by the architect.

Lofty columns of fluted silk rose above the now insignificant brim, supported by some mysterious sort of stiffening, and above all towered two plumes greatly heightening the effect to speak in literal terms. But of course I must try it on, so submitting to the operation with the best grace I could command, I ventured the remark that it was terribly tall and I didn't believe it would stay on. "Oh it is so much more stylish, and you will soon get used to it!" Thus assured, I started down Bush street, but was immediately conscious of carrying a good deal of sail, and there being a head wind I proceeded with the painful certainty that there was a dangerous want of permanence about my head gear.

Having no means of estimating the increase of stature I had thus suddenly acquired, except in a general way, I ventured under one of the awnings that seemed to offer a friendly shelter from the wind. In a moment the dread catastrophe had come. My new and elegant hat was rolling ignominiously upon the dusty pavement.

Thanks to its weight, I was spared the mortification of a long pursuit, but how to remount and read—just this elaborate piece of mechanism which had just been accomplished at the expense of such labor and skill, was a problem to the solution of which I proved unequal, as the sequel will show.

Fortunately my hotel was near but I could not carry the offending article in my hand, so lodging it in the region it was intended to adorn I hastened up to my room and the looking glass.

There it sat, perched at a grotesque angle upon one side of my head, seeming to jeer at me with the impertinent reminder, "you'll get used to it after a while."

Determined to give it a fair trial, I endured for one week, and then with an air of determination carried it to the milliner, assuring her that it would be impossible to get used to it, because I could not persuade it to stay upon my head. With great show of amiability she suggested that she could easily "take a reef in the top and widen the crown a little," which being done, I have laid it away to serve on state occasions, while my last years bonnet does general duty. If I had supposed that this was a solitary case, I should not have inflicted this bit of personal history upon the readers of the "Press."

But will some one suggest a remedy? The most discouraging feature of the case is that all the old fashioned and sensible shaped hat and bonnet blocks have been destroyed. So we must either wait for the next new freak of dame fashion, hoping it may be in our favor or those feeling themselves afflicted by the present styles, must unite in establishing a good old fashioned bonnet factory. Who wants to take stock? Please send in your names, and let us see the strength of our forces.

When I wrote my caption I had many things to say other than I have written, but I spare you till some future time.

Nord, Butte Co., Cal., Feb. 8th 1875.

Patents that the Patrons Own.

The order of Patrons of Husbandry now owns a patent for a first class harvester, said to be, by those who have tried it, the best in the world. This is sold for less than \$150.

It also owns a patent for a hay rake which cannot be surpassed by any now made. It is strong, manufactured of the very best material, and, for bunching hay, never had an equal. This machine is sold for \$25, and for this, as well as the Werner harvester, we are indebted to the Iowa Patrons.

The Order also has a patent reeder, purchased of the inventor of the "Van Brunt" reeder of Beaver Dam, Wis. This is an improvement on the Van Brunt, and is sold for \$40.

It also has the control of a combined self-raker, reaper and mower, which, like the others is giving the very best satisfaction. This is sold for \$140.

Other patents are being examined by the executive committee of the National Grange, and will be secured if found worthy of merit.—Farmers' Union.

The State Grange, with other members of the Patrons of Husbandry, is preparing to build a large grain depot at Antioch to meet the demands for the coming season from the San Joaquin valley. The Grangers of Antioch and Point of Timber own property to the value of \$20,000 on the Antioch water front, comprising a wharf at which two ships may be accommodated at once.

The Arkansas State Grange met at Little Rock on the 27th ult. Every county in the State was represented.

The Grangers' Business Association.

The Board of Directors of the Grangers' Business Association, of California, at their regular meeting, held on the 9th and 10th of March, 1875, have requested and accepted the services of the speakers, hereinafter mentioned, to make a canvass in the interest of the Association, to present to Patrons of Husbandry the scheme of business of the Incorporation, and solicit subscriptions to the capital stock of the company. Addresses will be made at 1 p. m., at the halls of the several Granges, as follows:

By Brothers Joel Russell and Daniel Inman, at Oakland, Saturday, March 20th; Livermore, Monday, March 22d; Haywards, Tuesday, March 23d; Centerville, Wednesday, March 24th; San Jose, Thursday, March 25th; Saratoga, Friday, March 26th; Santa Clara, Saturday, March 27th; San Mateo, Monday, March 29th.

By Brothers C. J. Mosely and W. L. Overhiser, at Crescent, Saturday, March 20th; Pescadero, Monday, March 22d; Santa Cruz, Tuesday, March 23d; Watsonville, Wednesday, March 24; Castroville, Thursday, March 25th; Salinas, Friday, March 26th; Gilroy, Saturday, March 27th; Hollister, Monday, March 29th; Mountain Grange, Tuesday March 30th.

By Bros. B. Marks, W. H. Baxter: Martinez, Saturday, March 20th, 1875; Pacheco, Monday, March 22d; Antioch, Tuesday, March 23d; Walnut Creek, Wednesday, 24th; Point of Timber, Thursday, 25th; Danville, Friday, 26th.

By Bros. R. C. Haile and O. Hubbel: Petaluma, Saturday, March 20th; Bloomfield, Monday, March 22d; Sebastopol, Tuesday, March 23d; Santa Rosa, Wednesday, March 24th; Bennett Valley, Thursday, March 25th; Healdsburg, Friday, March 26th; Geyserville, Saturday, March 27th; Cloverdale, Monday, March 29th.

By Bros. J. C. Cressey and J. D. Blanchard: Vallejo, Saturday, March 20th; St. Helena, Monday, March 22d; Calistoga, Tuesday, March 23d; Pope Valley, Wednesday, March 24th; Berryessa, Thursday, March 25th; Napa, Saturday, March 27th.

By Bros. J. E. Brooke and A. Adams: Rockville, Saturday, March 20th; Suisun, Monday, March 22d; Vacaville, Tuesday, March 23d; Elmira, Wednesday, March 24th; Dixon, Thursday, March 25th; Maine Prairie, Friday, March 26th; Davisville, Saturday, March 27th.

By J. C. Merrifield and N. Jones: West Grafton, Saturday, March 20th; Woodland, Monday, March 22d; Cache Creek, Tuesday, March 23d; Buckeye, Wednesday, March 24th; Capay, Thursday, March 25th; Hungry Hollow, Friday, March 26th; Antelope, Saturday, March 27th; Yolo, Monday, March 29th.

Bros. Daniel Inman and W. L. Overhiser will meet the Grangers of Colusa county at Colusa, on Monday, 15th inst.

Bro. Geo. Colby will make his own appointments for Butte and Tehama counties and publish them.

Bros. A. C. Bradford, M. S. Babcock and Thos. Fowler will make their appointments for Tulare, Fresno, Kern and Inyo counties and publish them.

Bros. M. Thorn, G. W. Henning, and J. H. Hegler will announce themselves for Ventura, Los Angeles, San Bernardino and San Diego counties.

Brothers Harding and G. C. Pearson at Yuba City, Saturday March 20th; N. Butte, Monday, March 22d; Sutter, Tuesday, March 23d; South Sutter, Wednesday, March 24th; Sheridan, Thursday, March 25th; Lincoln, Friday, March 26th; Roseville, Saturday, March 27th.

Sherman Island, Rio Vista and Meridian will be provided for and will receive timely notice.

Brothers J. B. Carrington and Thos. Upton at Stockton, Saturday, March 20th; Lathrop, Monday, March 22d; Castoria, Tuesday, March 23d; Atlanta, Wednesday, March 24th; Wildwood and Collegeville, Thursday, March 26th; Farmington, Friday, March 27th; Oakdale, Saturday, March 27th; Waterford, Monday, 29th.

Ceres, Modesto, Turlock, Merced, and Placerville will be notified by Brothers Cressey and Upton.

The foregoing covers the utmost possible ground which can now be reached by special appointments, to be kept by the gentlemen whose services are available.

Special appointments, which may be made by Granges, and of which they give timely notice to the Secretary, will be kept by speakers to be designated by the Board. Masters and other officers of Granges will confer a great favor upon the Directors by drawing attention to the above appointments, and extending to our speakers the hospitalities and courtesies which are the well known characteristics of Grangers. The Board must also request all Patrons to bear in mind that appointments for speaking at all the Granges cannot be made; that the expenses incident to such a canvass as would include all of the several Granges would involve such an expense as to materially diminish the funds which should be devoted to the business of the company and its employers, and that this consideration and the impropriety of over-taxing the kindness of our speakers, who give us their time, are the reasons, which we hope may be satisfactory to Patrons, which prevent a full canvass of all the Granges.

Therefore, the Board respectfully suggests to such Granges, as we can meet by these appointments, to invite such other Granges as we have been forced to leave without special appointments to meet with the Grange at which meeting has been designated.

It is the belief of the Board that no request is needed to insure the giving of such notice by the Granges to members as will secure to our speakers good audiences. The importance of the subject on which these addresses will be made and the universal sympathy felt by Patrons with us in this work will doubtless suggest to the officers and members of each Grange the propriety of giving such notice. By order of the Board, WM. VANDERBILT, Sec'y.

The Grange on Common Schools.

We have received a communication—of which the following is but a part—on the evils of our present school system. Its publication entire would require more space than we have at our disposal. From a careful perusal of the article we are confident that we do the subject and the writer of the article no injustice in giving only this portion of it:

The publishers fight on the text book question is ended for the present and several are "rising to explain" or excuse themselves for their participation in this scramble for the "loaves and fishes," and which may be periodically expected so long as the law remains as it now is. I do not propose to discuss the merits of the books adopted, or criticize the action of the Board of Education, further than that a change of readers was desirable. Arithmetics, as explanatory of numbers and fixed mathematical principles should be simple, lucid and adapted to the age and understanding of the pupil and in this respect, Eaton's was quite good enough. Geographies are descriptive books. They should be entertaining, with full descriptive notes in connection with each lesson, so that when a pupil completes the study he should have a clear and comprehensive idea of the "world we live in." Cornell's are exceptional in this respect, and I have often wondered why they were supplanted with Monteith's.

Text books for use in our public schools should be simple, intelligible and compiled by boards of experienced teachers and printed by contract, let to the lowest bidder, rather than by publishing houses, whose only object is to get up a merchantable article and make money out of it. The series should be uniform throughout the United States and the system national. Teachers should be trained graduates of normal schools and not permitted to vary the course of instruction according to their peculiar ideas or passing whims.

If we would remedy the evils of our "school system, let us strike at the root. We cannot all reside in villages. Some of us must till the soil and as a necessity live apart from school facilities. This is an injustice. We are as much entitled to have our children educated as the commercial nabobs. To secure this result we as Grangers and farmers have only to will it and the feat is accomplished.

A school house on every cross road in the State, where a dozen pupils can be collected together, with a trained normal school graduate behind the desk. The house owned by the State, paid for out of a common fund created for the purpose. The teachers retained on an annual salary, also paid by the State. The books compiled by a national board and furnished free to all pupils, rich and poor alike. The system under the contract of State boards, with district superintendents, also graduates from the same schools as the teachers. No local boards, no trustees to employ or discharge teachers. No local squabbles or parental dictation. Compulsory attendance enforced and the school room door kept open for two months in the year. The same studies to be pursued in one district as another, and the whole made uniform. In fair to make the child the ward of the State and let the State educate him.

Grangers you have all to gain by this change, and as we have mutually pledged ourselves to "advance the cause of education among ourselves and for our children by all just means within our power," let us make a fight on this issue. Consider the proposition fully in your Granges, and if you agree with me, you will live to see the public schools the pride and boast of every American citizen, and your children the gainers.

Antioch, Jan. 28th, 1875.

From the Granges.

Pleasant Valley Grange, No. 148.

EDITORS PRESS:—The installment of the newly elected officers of Pleasant Valley Grange took place February 6th, our county Deputy, E. B. Higgins, officiating. We had a good attendance; speeches from our Past Master and Deputy, E. B. Higgins; all very appropriate. Indulged hugely in a feast prepared by the worthy sisters for the occasion, and which did credit to the sisters and ladies of Pleasant Valley. Outside friends were invited to the installation and feast, and seemed to enjoy the occasion well. The members elect to the Ventura council for this year are: Daniel Roubush, James S. Harkey and W. O. Wood. Prospects for crops are brilliant this year, as we have had already an unusual quantity of rain up to this time,

and several spring showers, which will make general good times throughout the county. Yours fraternally, W. O. Wood, Sec'y.

Table Bluff Grange, Humboldt County.

EDITORS PRESS:—The weather this season has been very favorable for farming, and farmers are well along with their work. In the vicinity of the bay, a large amount of potatoes will be planted, but I do not hear of any who expect forty-seven and a half tons per acre. Our Grange moves slowly along. We have a class of seven under way. Table Bluff Grange is ready to trade McGuffies for the Pacific coast readers. Yours fraternally,

JACKSON SAWYER.

March 1st, 1875.

Plainsburg Grange, Merced County.

EDITORS PRESS:—We have about 70 members of the true type. The Merced Grange Warehouse company, of which we are a part, built two commodious warehouses last season, one at Merced and one at Plainsburg switch, three miles from the town of Plainsburg and twelve miles from Merced, from present appearances both the houses will be full to overflowing. I fully expected to hear of a terrible mortality among the Granges after the *Grocer* issued its first number. I received a copy of the first issue and I think it is really too bad the Grangers won't stop their nonsense nor even notice the *Green Grocer*. The Grangers must be a very obstinate set to not heed any of the gratuitous advice given them by *disinterested* parties. We have a harvest feast on March 6th and I really wish, Mr. Editor, you could be with us. You have several readers among our members, and I have tried several times to convince the Grange that every member should subscribe at once for the *RURAL PRESS* and am satisfied if they read the *Press* for three months they will be constant subscribers after that. You are aware that hard times prevailed last season and farmers had to economize. We hope for better times after another harvest and that we may be better prepared to patronize our friends.

T. J. E. WILCOX,

Sec'y Plainsburg Grange.

Santa Rosa Grange.

EDITORS PRESS:—The Santa Rosa Grange is in a flourishing condition. Last Saturday three new members took the first degree. At the same meeting the demand of assistance for our needy brethren was well responded to. The interest of our meetings is greatly promoted by the publishing of a weekly paper within the Grange. Its name is the *Patron's Looking-glass*; its editor, our worthy brother, E. W. Davis. We do think there is no better method for the developing of our minds, and no surer way to the fulfilling of the Patron's ideal.

J. A. O'BREEN, Sec.

Petaluma Grange.

EDITORS PRESS:—Petaluma Grange is considering "The Grangers' Business Association" in earnest, every time we discuss the question we gain more light and become more deeply interested. Subscriptions to the stock are progressing at a fair rate. F. PARKER, Sec'y.

[We learn that a large number came to the above Grange last Saturday expecting to hear Bro. Cressey, who was compelled by illness to remain at home. He seldom fails in an engagement, and will visit Petaluma Grange soon to their profit and pleasure.—EDS. PRESS.]

Elmira Grange.

EDITORS PRESS:—Our Grange is prosperous, with a prospect of increasing in numbers. Bro. G. W. Frazer is Worthy Master, Bro. M. D. Cooper, Treasurer, and I am Secretary.

WM. H. FRY.

The Order in other States.

THE Grange mill, at Waterford, Minn., has proved an undoubted success.

THE Louisiana State Grange met at Baton Rouge, December 3d. Much good was done.

THE next meeting of the Michigan State Grange will be held at Grand Rapids, January 21st.

THE *Farmers' Advocate* for October gives forty-two as the number of Granges in Canada.

THE Indiana State Grange met at Indianapolis, November 24th. There was a rousing meeting.

PATRONS in Kansas are saving twenty-five per cent. on their corn by purchasing it through the agency of the Iowa State Grange.

THE Kentucky Patrons are debating the feasibility of doing their own banking, as well as manufacturing their own agricultural implements.

THE Wisconsin Granges already have established forty-one co-operative associations for selling goods and manufacturing, and twenty-nine insurance companies; all flourishing, and representing capital to the amount of \$4,000,000.

SOME of the Iowa Granges have adopted the plan of appointing one of their number an editor, to prepare a paper to be read at the next meeting.

THIS year the Iowa State Grange manufactured 250 Werner harvesters; 40 were made in Nebraska and 75 in Minnesota. Over a thousand orders were unfilled this year; and three thousand orders are expected next season.

THE Worthy Master of the Ohio State Grange says that the Order is in a flourishing condition. Recently he had appealed to the subordinate Granges of that State to contribute to the relief of the members of the Order in Kansas and Nebraska, and in response he had received over \$700 in three days.

THE Grange movement in Texas has made rapid progress during the last twelve-month. There are now over six hundred organized Granges in the State, and a number of deputies are in the field organizing more. It is estimated that the present cotton crop of that State belonging to Patrons will be handled for one-third less than last year, and that the business men who propose to sell at these prices are among the best in the State.

Industrial Items.

ACCORDING to the *Shasta Courier*, Judge Beatty, of Sacramento, has purchased 1,200 acres of coal land from Peck & Kincaid, whose coal lands are situated on the head of Oak run, Shasta county. The work of developing these mines will be immediately commenced, and a large force of men will be employed. The coal extracted will be shipped to Sacramento, as soon as shipping facilities can be arranged.

IN Alameda county, some 24 miles south of Oakland, there are 400 acres of land devoted to salt making. In winter the sea water is let in, and in June it is gone into the clouds, leaving the salt behind. The annual yield is 7,500 tons; and the table salt there made brings \$10 per ton, while the cost of making it is \$6 a ton. Forty men are employed in the business on these 400 acres.

A new irrigating district is soon to be formed under the Bush irrigation law, which will include Anaheim and the surrounding country to the extent of 12,000 acres. The water will be brought from Santa Ana river. This will be the second district formed under the new law, and will bring in all about 26,000 acres under irrigation.

THE Portland iron works of Messrs. Moynihan & Aitken are just finishing the largest steam boiler ever built on this coast, and as large as has ever been built in the United States. It is 14 feet 8 inches in diameter, 16 feet across the front, with a chimney 10 feet in diameter and 12 feet high, and stands from the ground 26 feet 8 inches high. The length of the boiler is 19 feet 4 inches and it will weigh 100 tons when in position in the steamer "Senator." The iron is $\frac{3}{4}$ -inch and the rivets are also $\frac{3}{4}$ -inch, and the tensile strain on the iron is 60,000 pounds to the inch.

THE Kern county *Courier* of March 6th, says that the Hyde steam wagon, although not yet perfected in all its details, is proving a great success. It is now engaged in plowing and is doing splendid work. On Monday it plowed thirty-one acres in splendid style, and when every little fault of construction that experience points out is remedied, it will do much more. The cost of running the machine that day, or of doing this amount of work, including interest, wear and tear, etc., was \$25—a vast saving over the old method of plowing.

THE new machinery for the Capital woolen mills, Sacramento, is daily expected from the East. There will be about three car loads of it, of the most approved pattern.

MR. F. C. CHASE, while boring a well at the Findley ranch, near Wheatland, recently, discovered what are considered infallible signs of coal.

THE narrow gauge company of Salinas and Monterey has just received another locomotive from Philadelphia, at a cost of \$8,000.

General News Items.

OFFICIAL reports from all the railroads in Minnesota show only 2,340,000 against over 5,000,000 bushels last year. Well posted grain dealers estimate the entire wheat crop of last year at 21,000,000 bushels, and as over 16,000,000 bushels has already been shipped, there remains but little over 3,000,000 bushels in the hands of farmers.

WASHBURN & Co.'s new grade into the Yosemite Valley, from Clark & Moore's, a distance of twenty-four miles, will be completed about the 15th of next month. When finished this grade will be the finest one leading into the valley, as tourists can travel with as much ease and comfort as if on our valley roads.

THE THIEVES are getting smart in Vallejo—they have taken to stealing gardens. A resident of that place arose the other morning to find the shrubs, flowers, roots and bulbs which had adorned his premises the day before, vanished, and what was a garden, transformed into a desert.

THERE is no prospect of a speedy settlement of the difficulty between the Pennsylvania and Baltimore & Ohio rail road companies. In the meantime the public are being benefitted by the reduction of freight and passenger rates.

AMONG the important Pacific coast bills which passed Congress at the end of the session and have become laws was the bill providing for the coinage of twenty-cent silver pieces, to be a legal tender to the amount of \$5.

THE forty-third Congress adjourned on the 4th inst. The extra session of the Senate called by the President will probably continue until the last of the present month.



Newspaper English of 1884.

Picked up a paper here to-day,
And, by my conscience, I must say,
That they do write in the funniest way!

Some time ago, over my cup,
Went sound asleep—just woke up;
Must have been—well, let me see—
Eighteen hundred—fifty-three.
Cow came along—hell would tinkle;
Roused me up—second old Winkle;
Fell asleep, by their say so,
One and thirty years ago.

'Bout that paper? I was struck
All in a heap, Sir—just my luck;
"Miss Susan Smiler" 'll elocute
Thursday evening." I stood mute;
Never, in all my life, had heard
Of such an outlandish, barbarous word.
Elocute! Elocute! I do declare
—Bit my whiskers; pulled my hair;
Looked in my Webster—"twasn't there;
Gave the thing up in wild despair—
Said to myself, it's mighty queer!

Pretty near choked myself with rage,
Paper set forth on another page—
—Wonderful piece of local news—
"People np town are going to en/huse
And then the thing got worse and worse,
"To-morrow the people an/verse;
"July 4th—happy to state—
People are going to declare;
Think I'd better shut np shop,
"Mr. A. B. is a philanthrop;
And then, look here, why bless my eyes,
What in the world is Bismarck's?

Eyes of mine you can't be trusted?
"Coal-oil factory all combustet";
"Circumtrench your favorite fruits;
"Mexican Empire revolutes";
And, since the days I went to school,
What sort of thing is a perpendicular?

Reading along—why, bless my fate!
Here's a man who's going to orate!
Why, what on earth's this paper about?
Go stark mad if I don't find out,
Must be French, and yet I vow,
Never heard of the word till now.

Folding paper undecided—
Dear me! some one's homicided.
Laid down paper right away;
For, my conscience, I must say,
That they do write in the funniest way.
—R. W. Lowrie, in Boston Transcript.

Conservatism in Dress Reform.

[Written for the Press.]

"Variety is the spice of life," and I fancy even Mary Mountain would not care to see all men dressed in black cloth or all women in brown waterproof. Nature is prodigal in coloring and tasteful in all things; and because the pansy is an humble flower seems no reason that she should not wear a purple and golden gown.

The world would be all too sombre a place if we did not have many colors to enliven it. And I should not like to have all the flowers cut by the same pattern either. Even nature follows fashions and presents us with pleasing variety. Did you ever notice a bed of petunias, portulacas, or annual pinks, and note the almost endless markings and beauties they each day present and in spite of Dame Fashion's freaks and frailties I confess to a slight liking for her devious ways. Perhaps it is a lingering remnant of that total depravity with which modern reformers love to accuse all woman kind, in this day and generation. And yet I have not thought it worth while to consult a milliner on the "perch" of my hat, but wear it on the top of my head where it was intended to be worn, nor do I need to wear "pointed heels" when there are so many kinds of comfortable shoes and slippers to be found.

Paul says something about "using but not abusing things," and although not a great favorite with me in some things, I think his idea might safely be applied to fashion in dress. We all know how some people will abuse very good things. I have thought that some people even abused religion. They talked about it at all unseemly times. They croaked at sin and wickedness. They quoted platitudes by the score. And yet I never blamed religion. We may deplore their want of taste; and their idea of the fitness of things may seem incongruous and out of place, but we cannot consistently blame religion. The fault is in the person, in his temperament and his education. And I am sorry to say that these people cannot be reformed in a day either. It must be a gradual education. So it is with some women, they can't exercise good taste in dress, because it is not a part of their nature to do so. Their innate vulgarity or a commendable ambition prompts them to excel in everything they undertake, whether it be in cut, color or material, and it will take many years yet to educate them out of these lingering remnants of barbarism. But how will it be done. By abusing fashions? No, I think not; but by improving their taste, by educating their heart and mind; by placing other and wiser objects before

them for competition, by presenting a nobler ambition even if it be to reform the world in politics. And I don't consider it necessary that they altogether reform themselves first either, seeing that the other reform is needed so much the worst.
M. E. T.

White Lies.

[By ELIZA E. ANTHONY.]

There are many people who would scorn to tell a deliberate falsehood, but who are adepts in fibbing sometimes unintentionally, no doubt; and when remonstrated with, will reply with a toss of their heads: "Oh! that was only a white lie; everyone tells those."

When Claudine asks her friend's opinion of her new bonnet, and Victoria answers: "It's perfectly divine, and so becoming to you, my love," she knows that she is uttering a white lie, for in her heart she thinks the bonnet is hideous.

Even you, sir, admire Jones's horses to his face, and then tell a confidential friend that you never saw such "sorry-looking animals."

And you, madam, tell a white lie, when you press your friends to prolong their visit, telling them that you cannot live without them, etc.; when in reality, you are congratulating yourself on their departure.

You, young man, who part your hair in the middle, and perfume your mustache, why did you lure Irene to confess that she regarded you with a feeling warmer than affection, and then tell your boon companions that she was "a gushing girl." You thought we did not hear about that little episode, but we see and hear more than is supposed, and what we do not know, others tell us, so we keep well informed.

Blooming maiden, who with eloquent glances, winning smiles, and dulcet voice, encouraged Adolphus to declare his manly love for you, to which you listened with flushing cheeks, downcast eyes and heaving breast, and then coolly declined his love, because he was not wealthy enough to support you in luxury—have you ever thought that you acted, a worse than white lie, a deliberate falsehood, a systematic course of deception?

You may dimple, blush and smile at another's agony now; but the time may come when you will experience the same pain which you meted out to others without remorse.

The beauties of truth have been sung and lauded countless times, but can never be exhausted. If people would speak the exact truth, scorn exaggeration and white lies, society and morals would be elevated and purified, and individuals would be far happier.

San Jose, Feb. 5th, 1875.

An Encouraging Rumor.

There has lately been current a rumor so improbable and yet so delightful that most men fear to investigate it lest it may vanish in the process. It is asserted, perhaps in quarters too sanguine to be trustworthy, that ladies are seriously thinking of wearing dresses which they can walk in. For the last year, the promenade has been a torture to any woman who has any respect for herself. Her dress drags all the way around and the train thereof follows her for a foot or so. She must either make it loathsome by dragging it through the filth, or she must hold it up with both hands. If she attempts this delicate and fatiguing office with one, tired nature soon asserts itself, and somewhere or other a fold of the idiotic garment drops into the mud. It is generally known that the female human has but two hands, and if both of these are filled with superfluous raiment, the management of the parasol, the portemonnaie, the half dozen bundles of dry goods and pound of confectionery, without which a street costume is incomplete, becomes a matter of some difficulty. The unassisted male intellect can see no way out of this trouble except the shortening of the peccant skirts. But we do not envy the fate of the rash man who should suggest it. He will be told he has no taste, no perception of style, no regard for the pure intuitions of woman. If he shall say that a few years ago women wore lovely short dresses and looked like angels in them, he will be met with the crushing reply that "a few years ago" is not to-day. None of these severe votaries of Fashion, however, seem to see that they are evading her decrees in holding up their dresses. The milliners compel them to wear these long robes, so that they may get middy and wear out sooner, and it is disloyal to try to save them from this fate.
—N. Y. Tribune.

THE RIGHT KIND.—In speaking of the death of that great and good man, Gerrit Smith, an exchange has the following: "In religion Mr. Smith was extremely liberal. He gave in his adhesion to no creed, but framed one of his own, based on that fundamental principle of all religion, 'Do unto others as you would have others do unto you.' His charity was broad. Catholic, Christian and Pagan, bond and free, white and black, were alike brothers to him, and had a claim upon his generosity which he never gainsaid. That a human being was in want was all he desired to know; the question of creed or color never suggested itself to his mind. His was the noblest of all philanthropy—a philanthropy based upon a broad humanity. When such men die the world is a great loser; for such men seldom—too seldom for humanity's sake—have an existence." Such were also Mr. Lincoln's religious traits of character. His creed was the golden rule under any and all circumstances.

THE BABY WAKING.—Did you ever watch a baby waking from its morning nap? It is one of the prettiest sights in the world. There is the crib, with its small preparations and snow-white drapery that covers something, round and plump. There is nothing to reveal what it is; not the slightest movement of the pillowed whiteness that is visible—no sound to indicate keenest actual life, until the hour hand of the clock that stands sentinel like yourself, has twice made its circuit. Then, there is a slight pulsing in the white drapery, a small pink tremulous hand, fair as a rose-bud is thrust out, and from the nest thus broken into, appears a round diminutive face, with wide open eyes that have not much speculation in them yet; soon however they cease to stare and become questioning, serious, as if wondering what kind of a world it is they open upon, and the head lifts itself just a little, and two snow-white feet stand up spasmodically with a simultaneous movement each toe of which has an attendant dimple. But the head is too heavy—it falls back on the pillow with its own sweet weight, the hair all damp and golden—the cheeks peachy—the mouth just pouted, as the angels kissed it in dreams. A first lingering go-o-o comes from its rosy depths, sweeter than any bird's song, for it has a spirit tone and yet retains a thrill of its native skies. The chubby hands are lifted imploringly, persuasively, the baby is awake and ceases to be an angel.—*Prairie Farmer.*

"THE OLD MAN AND OLD WOMAN."—How often do we hear young men speak of their father and mother as the "old man" and the "old woman." Shame on you, young man, to speak thus of your honored parents, who have in their breast a love for you which no other can feel; who would brave their life for you and give their last dollar to save you from disgrace; and yet you speak of them as the "old man" and the "old woman," instead of giving them the honored title of father and mother. As a general thing, when one speaks of the old man or woman, it is only of those who have never lived a life of usefulness, nor never by nature bore the noble name of father or mother. When we hear a young man speak of his parents in this way, we generally find him to be a fast young man, who is unto himself a law sufficient and who gives his parents much trouble and pain, and who, sooner or later, brings them in sorrow to the grave. My advice to young women is to discard a young man who speaks of his parents in this disrespectful way, for he who has no respect for father or mother will have but little for a wife. "For a young man according to his ways, even when is old he will not depart from it," and it gives us pain to hear young people speak so lightly of their parents.

LIVING TOGETHER.—The art of "living together" pleasantly is greatly promoted by the habitual exchange of the little courtesies of life; they are never unimportant, never unacceptable, are always grateful to the feelings, and are a constant well-spring of agreeable feelings in every household. Shall brothers and sisters be less careful of the feelings of one another than of those of a stranger? And, between husband and wife, should there be less effort at gentleness of deportment, of suavity of manner and courtesy of expression, than is extended to outsiders, who have no special claims and may never be seen again? Shame upon any member of any family who neglects those affectionate attentions and those suavities of deportment toward the members of the household and even to the lowest servant, which cannot fail to elevate the giver, and to draw from the receiver those willing and spontaneous reciprocities which make of family associations a little heaven below.

HOW TOM MARSHALL CAME TO BE A DRUNKARD.—"How came you to be drunkard?" asked a friend of Tom Marshall in a conversation with him. "Well, I will tell you all about that," said Tom. "I graduated in law in Lexington, with the celebrated divine, Rev Robert I. Breckinridge, and our friends thought we were the intellectual wonders of the age, and they advised us by way of taking a high position at once, to attack Henry Clay, then in the prime of his fame and power, upon the first opportunity which presented itself. That opportunity soon came. We were both employed in a case in opposition to him. Bob made a speech and I made a speech, and our friends congratulated us on our tremendous speeches, and we were basking in the sun-hine of our coming prosperity, when the old lion arose, and with one sweep of his paw he drove Bob to the Bible and me to the bottle, where we have been ever since."

HORRIBLE SLAVERY.—Mrs. Livermore's blood boils and her spine rises when she comes to this part of her lecture: "Among the Brahmins in Southern India, when the husband takes a wife he binds around her neck the badge of ownership, as you bind your badge of ownership around the neck of your Spitzbergen dog. She cooks her husband's food, stands behind and serves him, and when he has finished his meal she eats what he has left, if he leaves anything, and if he does not she gets along the best way she can."

THE QUAINTEST THING OF LATE IN BABY TALK.—A little girl seeing a dog scratching to be let in at an opposite door, promptly knocked at the window and called out, "Tug a bell, doggy, ing a bell."

Ideas of Woman.

A recent work published at Brussels contains, among other interesting matter, a collection of aphorisms by various authors, mostly French, of which we append a few:

CHAMBERS.—In the choice of a lover a woman considers more how he appears in the eye of other women than in her own. Love is more pleasing than matrimony, just as romance is more entertaining than history.

BOUQUEART.—If we speak ill of the sex generally they will arise against us; if we do the same of any individual woman, they will agree with us.

CHARLES LEMESLE.—Most of their faults women owe to us, whilst we are indebted to them for most of our better qualities.

STERNE.—Most women are endowed with such naturally endearing charms that even their presence is generally beneficial.

MADAME DE STAEL.—Love in a woman's life is a history; in a man's, an episode.

CATALANI.—Only he who has nothing to hope from a woman is truly sincere in her praise.

DIDEROT.—There exists among women a secret tie, like that among the priests of the same faith. They hate each other, yet protect each others interests.

STAHL.—No woman, even the most intellectual, believes herself decidedly homely. This self-deception is natural, for there are some most charming women without a particle of beauty.

DIVERSITY OF GIFTS.—One of the most difficult questions parents are called on to settle concerns the particular training each individual child requires. No two of a dozen children in the same family agree in disposition, in ability, in taste and inclination. Each has his idiosyncrasies and his special gifts which render special treatment necessary. One boy has a passion for farming, his brother delights in music, still another enjoys using tools and solving mathematical problems. What folly it would be to subject these three boys to the same curriculum of study, and expect in this way to make the most of them as men. Not what we put into a boy's head educates them, but what we draw out of it. Education is a process not of cramming, but of development, and wise are those parents who, understanding the abilities of their children, suit the training each receives to his special requirements. It is not easy in a multitude of cases to tell exactly what particular talent a boy or a girl possesses. We must wait for time to develop his or her special gifts, and while so doing give the best general training in our power, shaping the child's course in the direction, in which it seems most probable he will be successful in winning the desirable things of this life, and so winning them as not to lose in the life to come.
—Mrs. Lyman, in N. Y. Tribune.

LONDON JOURNALS have for a long time had articles on the subject of "A Third Sex," and a writer in the *Woman's Journal* thus alludes to the matter: "There is growing up in England a large class of women who do not marry, but who apparently wish not to marry. They deliberately devote themselves to literature, to teaching, to some trade, generally an artistic one; at any rate to some occupation that gives a livelihood and tends to culture, and this they choose for life. The marrying instinct seems dead, or rather never to have been born in them. They do not seem to be thought out of place, but, on the contrary, they move in fit places in the great social organism easily and naturally and are accepted without remark."

REGARD FOR THE AGED.—A little thoughtful attention, how happy it makes the old. They have outlived most of the friends of their early youth. How lonely their hours! Often their partners in life have long filled silent graves; often their children they have followed to the tomb. They stand solitary, bending on their staff, waiting till the same call shall reach them. How often must they think of absent, lamented faces; of the love which cherished them, and the tears of sympathy which fell with theirs, now all gone. Why should not the young cling around and comfort them, cheering their gloom with songs and happy smiles.—*Selected.*

A HOG WITH A WOODEN LEG.—A hog with an artificial leg must be a touching and picturesque object. The cow-catcher at Dunleith took off the hinder leg of Mr. Smith's hog, and his benevolent owner made a wooden succedaneum and strapped it to the stump. The creature shows its gratitude by accumulating fat with great rapidity, the only drawback being that when killing and curing time comes, one of the hams will have no handle.

TOO DEEP FOR UTTERANCE.—There are times when language, even in Michigan, is totally inadequate, and one of them was the other day, when a carpenter named Johnson put his finger through an auger hole to remove a splinter, and his fellow workman seeing the digit projecting from the orifice took it for another splinter and with his chisel and took it off clear up to the knuckle.

BIBLE ALBUMS.—Bible albums are the latest fireside diversion. Pictures clipped from illustrated publications are pasted in a scrap book, and the collector's scriptural knowledge is exercised in choosing an appropriate verse to write below each cut. Rare and expensive pictures are sometimes used.

Women's Work.

In the great labor contest that is always going on, woman enters at a disadvantage, and that disadvantage continues throughout. The avenues of employment are closed against her merely because she is a woman, and when she does find employment it is generally at beggarly wages. The man who cleans the gutters can command better wages than women of intelligence and ability can obtain. There are hundreds of women and girls in our cities who are forced to work for a living in the East. Very frequently they are of more than ordinary education and intelligence, yet they can rarely make it avail them. It is not, after all, to be greatly wondered at that so many young women fall by the wayside. Their position is one of great danger, and only the possession of sound moral principles can carry them through with safety. They have to fight single-handed against a host of foes. There is a prejudice against employing them in positions for which they are best fitted. They are paid much less wages than men, but their board bills are just as high. They must dress at least decently, and that cannot be done without money. They are compelled to live in more expensive places than men, because a man can live anywhere without affecting his reputation, whilst a woman has to exercise the greatest discretion in this respect. So of employment; a man can do anything on a push without hurting his future, but for a woman to do certain work, though it be honest work honestly done, would injure her entire future prospect. At every step she is surrounded by temptations to exchange her life of weary work and worry for one, the dazle of which in the present perhaps hides the certain misery which lies in the future. When to all this is added the fact that masculine labor is organizing in some quarters to elbow women out of the labor field entirely, and that a large class of women, less intelligent and refined than the working women themselves, regard contemptuously the young woman who "works for her living," the way of the girl who seeks to maintain herself by the labor of her hands or brain, rather than eat the bread of dependence or of shame, is sufficiently hard.

THE HEAD OF THE TABLE.—In Queen Elizabeth's time the fashion came into vogue of placing the principal joints and pieces of meats at the head of the table above the salt, in order that the chief guests might regale their eyes with the promise of good cheer before them, and also be conveniently served to choicest cuts. This custom involved the necessity of carving the meats after they had reached the table; therefore, the ladies were invited to sit at the head of the board, that they might perform the services which had heretofore been delegated to the professional carver. It was thus from no desire to compliment the fair sex that woman in the beginning, promoted to the most honorable place at the table. It was for the selfish convenience of her lord, and not for her own dignity, that the position was accorded to her, and as in mediæval society, she ministered to her guests by preparing dishes for their enjoyment, often bearing them to the table herself, so she now, in the capacity of carver continues in the rank of a servitor. But with the tact which is her distinguishing characteristic, she has gradually converted the carver's stool into a throne of state, and assumed the right to preside over the company through an office which originally authorized only her to help them to food.

GROWTH OF MAN.—Observations regarding the rate of the growth of man have determined the following interesting facts: The most rapid growth takes place immediately after birth, the growth of an infant during the first year of its existence being about eight inches. The ratio of increase gradually decreases until the age of eight years, at which time the size attained is half that which it is to become when full grown. After five years the succeeding increase is very regular till the sixteenth year, being at the rate for the average man of two inches a year. Beyond sixteen the growth is feeble, being for the following two years about two sixteenths of an inch a year; while from eighteen to twenty the increase in height is seldom over one inch. At the age of twenty-five the growth ceases, save in a few exceptional cases. It has furthermore been observed that, in the same race, the mean size is a little larger in cities than in the country, a fact that will be received with doubt by many who have come to regard the rustic as the true model man.

A WOMAN AS BANK DIRECTOR.—The election of a lady as a member of a board of bank directors is the latest instance of concession to woman's rights. At the recent annual meeting of the stockholders of the First National Bank of Peoria, Ill., the name of Mrs. Lydia Bradley was placed at the head of the newly-elected Board of Directors. Mrs. Bradley is a wealthy widow of that city, and one of the chief stockholders in the bank.

A FAST LIFE.—The late Emperor of China went through his little life-day at such a rate that might think his sceptre was a rush and his throne a rush-bottomed one. As everybody knows, he was very young when he was born; at five he became ruler, at fourteen a father, and at nineteen he died, leaving his vast empire to his own little son as it was left to himself fourteen years ago.

YOUNG FOLKS' COLUMN.

Letters to Boys—No 7.

DEAR CALIFORNIA BOYS:—Here we are, but late! I commenced on 1875, and wish you all a "Happy New Year," and many of them, though I suppose by the time this reaches you some of you will have almost forgotten the "Merry Christmas," of 1874, and the first day of this new year.

The great cry in this place has been "hard times." The shops and mills have either stopped work, or run but a part of the time. But old Santa Claus did not seem to mind it one bit; for he visited three of the churches, and filled six trees with valuable fruit, beside calling at less public places. I saw him at one of the churches, but he wore a mask, so I cannot tell you how his face looked. He carried many presents in a bag; and a drum and a turkey weighing fourteen pounds, over his shoulder. I wonder if any very small boy will say, as my little niece did, "Is there a truly Santa Claus?" How in *dis* world does he crawl down frew the stovepipes?" *Queeze* him *drefful*, wouldn't it?" Sure enough! I guess it would; and so we will think about Santa Claus as the boy did who set a trap for that far-famed individual, by surrounding his stocking with tin dishes, so that Santa Claus would be sure to knock them down, when he came down the chimney. Well, the boy went to bed and fell asleep. But he soon awoke, for there was a fearful rattling among the tin-pans, milk-cans, etc. Up he jumped, feeling sure that he, of all the boys in the world was to be favored with a sight of the veritable Santa Claus. Who do you suppose he found? Why, his father, of course; and if you had tried the same experiment, you might have caught your father, or perhaps your mother, or aunt, or uncle. But I think it would have been some one you had seen before. And I believe it is better to let Master Bright-eyes know who gives him presents, than to have him eyeing the stovepipe suspiciously, and worrying his dear little brain for fear the very fat Santa Claus, seen in pictures, can't "Queeze down frew."

JENNIE E. JAMESON.

A Little Talk to the Boys and Girls.

It is very hard for boys and girls between ten and twenty to believe what older people tell them concerning the selection of reading matter. If a book is interesting, exciting, thrilling, the young folks want to read it. They like to feel their hair stand on end at the hairbreadth escapes of the hero, and their nerves tingle to the ends of their fingers at his exploits, and their faces burn with passionate sympathy in his tribulations—and what harm is there in it? Let us see what harm there may be. You know very well that a child fed on candy and cake and sweetmeats soon loses all healthy appetite for nutritious food, his teeth grow black and crumble away, his stomach becomes deranged, his breath offensive, and the whole physical and mental organization is dwarfed and injured. When he grows older he will crave spices and tobacco and alcohol to stimulate his abnormal appetite and give pungency to tasteless though healthful food. No man who grows up from such childhood is going to have the first positions of honor and trust and usefulness in the community where he lives. The men who hold those positions were fed with milk and bread and meat when they were young, and not with trash.

Now, the mind like the body grows by what it feeds upon. The girl who fills her brain with silly, sentimental, lovesick stories grows up into a silly, sentimental, lackadaisical woman, useless for all the noble and substantial work of life. The boy who feeds on sensational newspapers and exciting novels has no intellectual muscle, no commanding will to make his way in the world. Then, aside from the debilitating effect of such reading, the mind is poisoned by impure associations. These thrilling stories have always murder, or theft, or lying, or knavery as an integral part of their tissue, and boys while reading them live in the companionship of men and women, of boys and girls, with whom they would be ashamed to be seen conversing, whom they would never think of inviting to their houses and introducing to their friends, and whose very names they would not mention in polite society as associates and equals. Every book that one reads, no less than every dinner that one eats, becomes part and parcel of the individual, and we can no more read without injury an unwholesome book or periodical than we can eat tainted meat and not suffer thereby. Just as there are everywhere stores full of candy, and cake, and liquor, and tobacco, and spices, so there are everywhere books, newspapers and magazines full of the veriest trash, and abounding in everything boys and girls should not read. And just as the healthful stomach, passing all these pernicious baits, will choose sound aliment, so the healthful mind will reject the unwholesome literature current everywhere, and select such only as is intrinsically good.—*N. Y. Tribune.*

A LITTLE boy couldn't remember the text exactly, but thought it was something about a hawk between two pigeons. It was, "Why halt ye between two opinions."

GOOD HEALTH.

Dangers of Pork Eating—How the Trichina Kill.

We condense the following from the *Health Reformer*:

When taken into the stomach the trichina is invested by a capsule. The fibrous capsule is very soon dissolved away by the gastric juices, thus setting at liberty the partly matured worm, which grows very rapidly, attaining its full size in about two days, being then many times larger than when first taken into the stomach. When its length is only about one-twenty-fifth of an inch. In about a week each worm gives birth to about 1,000 young, according to Leuckart, which immediately begin to penetrate the mucous lining of the stomach and intestines. This gives rise to violent purging and vomiting, but to little effect for the relief of the patient, for the worms are already secure in the walls of the intestines. In a very short time they find their way into all the muscles of the body, when the most painful symptoms occur. The patient lingers along for a few days, perhaps weeks, in the most distressing suffering, finally dying from exhaustion, or from suffocation caused by the great number of parasites infesting the muscles of respiration and thus preventing their action.

In less than two weeks after eating an ounce of infected meat a person might have in his intestines hundreds of millions of these rapacious animals, whose ravages no remedy can stay. Imagine the agony which a person must suffer, while this numberless horde of microscopic serpents are boring through the wall of his alimentary canal. The rapidity with which the body becomes filled with these loathsome creatures is most astonishing. Professor Dalton found 208,000 to the cubic inch in the muscles of a boy who died on the twentieth day after being attacked with the disease. When a person has been once poisoned he can never become free from the parasite. Death is his most probable end; but some survive after many months of suffering worse than death. In these cases the worm becomes incased in a calcareous sheath, which process takes place in from one to two years. Here they may live for an indefinite period, probably as long as the patient. Virchow mentions a case in which they were found alive in a cancer removed from a woman twenty-four years after they were received into her system.

Its Prevalence in Swine.

The trichina is found in cats, rats, mice, and various other animals, as well as in the hog, and it is probable that they are introduced into the latter by eating the dead bodies of the first mentioned animal. It seems to be the general belief that the disease is of rare occurrence in hogs, and need excite no apprehension. Various facts disprove this supposition, however. It should be remembered that the flesh of an infected animal may be apparently healthy to an unassisted eye for the trichina are microscopic objects, often being no more than one-seventy-third of an inch in length and one nine hundred and sixtieth of an inch in diameter. Careful observations have been conducted by scientific men to ascertain the frequency of the disease by examination of the dead carcasses sent to market. A committee of the Chicago Academy of Sciences reported in the *Medical News and Library* of June, 1866, that in 1394 hogs examined in different packing houses and butcher shops of the city they found an average of one in fifty affected with trichina. A gentleman in Louisville reported, as the result of extensive observations, that he found an average of one trichinous hog in every ten examined.

Frequency of the Disease in Man.

Until recently there has been no conception of the frequency of this disease. It is now positively known that many cases of supposed typhoid fever are really the results of trichina poisoning. Professor Janeway, Demonstrator of Anatomy at Bellevue Hospital, asserts that observations in the dissecting room had convinced him that the disease was of great frequency, not being discovered until revealed by post-mortem examination, the patient being treated for some other supposed affection. He found three cases thus affected in the short space of one month; and it is probable that the majority go undetected.

Many unmistakable cases of the disease have occurred within the last ten years since public attention has been called to it. A physician last winter attended eight cases of the disease in a single family in Malcolm, Iowa. Several members of the family died in a few weeks. The remainder of the family survived but only to continue suffering. None of them have regained their health.

In Helstadt, Prussia, one hundred and three persons were poisoned by eating sausage at a public dinner. A large number of them died in a short time, twenty within a month.

In Germany 360 persons were attacked with the disease at one time. Large numbers of them perished miserably. Those who survived were doomed to carry about in their flesh, during the remainder of their miserable life, myriads of loathsome worms encased in calcareous envelopes which sometimes forms around them, preventing their irritating action on the human system, and thus rendering the life of the patient possible, sometimes for many years after the first attack.

DOMESTIC ECONOMY.

Humbug Food.

A careful observer will not accuse us of exaggeration when we say that thousands, yes, millions of people are daily attempting to supply the alimentary wants of their bodies with compounds which are the veriest humbugs extant. Very earnest and just protests are raised against the many lottery swindles and numerous other deceptive operations constantly being brought to light; but the majority of us daily allow ourselves to be "taken in" by the savory but innutritious and unwholesome mixtures which modern cooks furnish us. A multitude of shrewd farmers, merchants, lawyers, and even doctors, who pride themselves upon their tact and cleverness, are unwittingly cheated several times a day by their dear wives, although we should in justice say that the latter are in total ignorance of the perpetration of any offense. And yet, although a matter which is so intimately related to life and health as is food and drink is of vastly greater moment than mere material or pecuniary affairs a protest against these wholesale dietetic swindles is seldom heard.

The common terms, "rich" and "poor," as applied to food, are excellent illustrations of the ignorance of the popular mind respecting the real dietetic value of articles of food. Thus we hear, and sometimes ourselves speak, of rich pies, rich cakes, etc.; and we talk of poor food and low diet, including in the latter classes articles which are deficient in those elements which would give them rank in the class of "rich food" if present. In our estimation the terms rich and poor should be applied to articles of diet in exactly the reverse of their present application. If the word "rich" has any proper significance as relating to food, it should certainly be applied to such articles as contain the materials requisite for the maintenance of the body in the largest proportion, and in the most available condition. This would require us to denominate as "rich," such articles as Graham bread, oatmeal pudding, and similar delicacies, while the appellation of "poor" should be applied to pies polluted with lard and spices, cake made indigestible with soda, butter, and a profusion of sweets, and all articles of like character. So, too, would we be obliged to term "poor" the numerous "fried" dishes which figure so largely in the popular bills of fare. But poorest of all is the diet of the man who allows himself to believe that in taking a glass of "bouillon" he is taking a "long drink and a square meal at the same time," as the flaming placards in the saloons assert.—*Health Reformer.*

BROWN BREAD.—The sweetest bread ever made.—Take three pints of coarse yellow corn meal, scald it with three pints and a half of boiling water, add two pints of coarse rye meal after the corn has cooled. Knead thoroughly with the hands. Take it out into a stoneware crock which is a little larger at the top. The quantity here given will take a vessel which holds five or six quarts. Place it immediately in the oven, after smoothing over the top with a spoon frequently dipped in cold water. Cover with a stone or iron plate, and have but little heat in the oven. It should take three hours to begin to bake, then bake slowly four hours. Leave the loaf in until the oven cools off, if it is several hours longer. It should be dark-colored, light and firm, with a good soft crust. A round-bottomed iron kettle will do to bake in. Try it.

SPLIT PEA SOUP.—Put one pint of split peas, which have been previously soaked in cold water four hours, into two quarts of pure soft water. Let them boil for one hour, then add one carrot, one parsnip, one turnip, two onions, a small head of celery and a little mint, all cut small, and boil another hour. Strain the soup from the vegetables, and thicken it with a little Indian meal, previously mixed in cold water; boil the whole for ten minutes more, and serve in a tureen with toasted or plain wheat meal bread. Mix the vegetables well, and put them into a mould or basin, and then into a vegetable dish, and serve with steamed or baked potatoes. Salt moderately.

APPLE BREAD.—Weigh one pound of fresh, juicy apples, peel, core, and stew them to a pulp, being careful to use a porcelain kettle or a stone jar, placed inside an ordinary saucepan of boiling water; otherwise the fruit will become discolored; mix the pulp with two pounds of the best flour; put in the same quantity of yeast you would use for common bread, and as much water as will make it a fine, smooth dough; put into an iron pan and place in a warm place to rise, and let it remain for twelve hours at least. Form it into long-shaped loaves, and bake in a quick oven.

BAKED CUSTARDS.—One pint of cream; four eggs; cinnamon; almond-flavor, and three ounces of sugar. Boil the cream with a piece of cinnamon; pour it into a basin, and when cold add the eggs, well beaten and strained, the sugar powdered, and a few drops of almond-flavor. Bake in small cups, in a cool oven.

STRING BEANS should be strung, broken in pieces, and boiled an hour or two, and seasoned the same as shelled beans.



A. T. DEWEY, W. B. EWER, G. H. STRONG, J. L. BOONE
PRINCIPAL EDITOR.....W. B. EWER, A. M.

OFFICE, No. 224 Sansome-street, Southeast corner of California street, where friends and patrons are invited to our SCIENTIFIC PRESS, Patent Agency, Engraving and Printing establishment.

SUBSCRIPTIONS payable in advance—For one year, \$4; six months, \$2.25; three months, \$1.25. Remittances by registered letters or P. O. orders at our risk.
ADVERTISING RATES.—1 week. 1 month. 3 months. 1 year
Per line.....25 .80 2.00 5.00
One-half inch.....\$1.00 \$3.00 \$7.50 24.00
One inch.....2.00 5.00 14.00 40.00

No Quack Advertisements inserted in these columns.

RURAL PRESS.

OLD SUBSCRIBERS and other reliable persons are authorized to get up clubs of five or more subscribers for this paper at \$3 per annum for each name. Our terms for all subscribers are cash in advance. Postage will be prepaid by us after January 1st, 1874. The papers will be addressed singly to each individual. Regular subscription price \$4. Sample copies free. Let those who will work for the Rural bear in mind that they will confer a lasting benefit on new subscribers, besides improving their own talents by business practice. Try your hand and report at once. We offer all a chance. You do not know what can be done till you try!

SAN FRANCISCO:

Saturday, March 13, 1875.

TABLE OF CONTENTS.

GENERAL EDITORIALS.—The Home Hunters; Transporting Fowls, 161. Keep Your Trees Clean; Home Industries, 168. A New Fruit Dryer, 169. Patents and Inventions, 172.
ILLUSTRATIONS.—One Form of Transportation, 161. Plummer's Patent Fruit Dryer; Economy of the Vegetable Kingdom, 169.
CORRESPONDENCE.—From Our Southern Journeys Correspondent, A. C. K.; More About the Rattle Weed; Alfalfa in Orchards—Scuppernong Grape; A Cypress Twig; Barren Fig Trees, Orange Seeds, Etc.; Pioneer Horse Dead; Straw-Burning Engines; The Late Rain at Los Banos; All About Castor Beans; Improvement in Straw-Burning Engines, 162.
THE DAIRY.—Commercial View of the Dairy Business; Caked Bags in Cows; Keeping Butter; To Avoid Greasy Butter, 163.
THE VINEYARD.—The Scuppernong Grape; What will be Lost this Year by Shipping Wheat Abroad, 163.
USEFUL INFORMATION.—Forging Tools; Treatment of Tin Scrap; Stupid Newspaper Reports; New Way of Cutting Veneer; A Few Hints to Foremen, 163.
PATRONS OF HUSBANDRY.—Progress of the Patrons in California; New Granges; Meetings; Etc., 164-5.
HOME CIRCLE.—Newspaper English of 1884; Conservatism in Dress Reform; White Lies; An Encouraging Rumor; The Right Kind; The Baby Waking; "The Old Man and Old Woman"; Living Together; How Tom Marshall Came to be a Drunkard; Horrible Slavery; Ideas of Woman; Diversity of Gifts; Regard for the Aged; A Hog with a Wooden Leg; Too Deep for Utterance; Bible Albums, 166. Women's Work; The Head of the Table; Growth of Man; A Woman as Bank Director; A Fast Life, 167.
YOUNG FOLKS' COLUMN.—Letters to Boys—No. 7; A Little Talk to the Boys and Girls, 167.
GOOD HEALTH.—Dangers of Pork Eating—How the Trichina Kill, 167.
DOMESTIC ECONOMY.—Humbug Food; Brown Bread; Split Pea Soup; Apple Bread; Baked Custards, 167.
POPULAR LECTURES.—Economy of the Vegetable Kingdom, 168-9.
HORTICULTURE.—Stockton Nurseries, 169.
AGRICULTURAL NOTES from various counties in California, 172.
MISCELLANEOUS.—What will be Lost this Year by Shipping Wheat Abroad; The Wood of the Osage Orange Tree, 163. Agricultural Items; General News Items; Industrial Items, 165.

LAND PLASTER.—We are pleased to state that Messrs. Lucas, Geaner & Co. have established a mill at 215 and 217 Main street, in this city, for the purpose of manufacturing plaster of Paris for fertilizing and other purposes. The fertilizing influence of this material have long been known and appreciated in the Atlantic and Mississippi Valley States; but it has never been utilized in California, chiefly on account of the exorbitant price charged for it here—\$20 per ton. The above named firm is now enabled to supply a very superior article for \$10 per ton, and we understand that some farmers are already beginning to supply themselves, either with large quantities for general use, or with smaller ones for experimental purposes. There is no doubt that this fertilizer, if generally introduced, would prove much more efficient in the dry climate of California than it ever has done in the more moist regions east of the Rocky mountains. We shall soon refer to this matter more at length, and in the meantime would urge upon our farmers the propriety of at least experimenting with the material on a small scale this season, and thus so assure themselves of its value that they may apply it more largely another season, should the success of this year's experiment warrant them in so doing.

ON FILE.—"Panels for Portable Fence," C. W. C.; "Joseph Enright's Manufacturing Works," McG.; "The Scuppernong Grape in N. Y.," J. B. G.; "From Mussel Slough," J. H. J.; "From Borden, Fresno County," Farmer; "From Los Nietos," P.; "The Rattleweed," Off Hand; "A Plea for Our Native Plants," J. C. C.; "Trip to Merced," J. B. A.

Keep Your Trees Clean.

People know very well that vermin can only be kept from the human family and domestic animals by cleanliness. If a man learns that anybody about his premises is suspected of having about their persons any of those animals that the poet Burns saw crawl upon a lady's bonnet, what is to be done? Why, wash, wash! If any member of the poultry family are supposed to have about their bodies similar vermin, exterminating powders are applied and the premises are thoroughly whitewashed. Horses, cattle, sheep, swine, and even the dog, receive similar attentions; and, as we all know, the careful man does not wait until these vermin appear, but by simple cleanliness closes the general premises against them.

Now what precautionary or exterminating measures does this otherwise careful man apply to his trees, vines and shrubs in connection with these pests? We need not wait for Echo to answer, for we all know just how it is ourselves.

There is nothing outside of the human family that receives more ardent professions of regard than trees, plants, etc.; but there is nothing over which man has been appointed keeper that he has so neglected. Women, and men too, will go into ecstasies while writing about trees and flowers, but while idly admiring them the foliage and flowers are being overrun with armies of unromantic lice and bugs, and the borer is drilling a hole into the trunk, constructing a home for the disgusting grub of the next season; and instead of coming to their defense or relief, they pronounce it "perfectly awful," and transfer their regards to other reigning favorites.

It is a very pretty sight to see a woman gazing about among her flowers, constructing go-quets, but we prefer seeing her going through the garden with her plain basket or basin, picking off infested leaves, slaying her thousands of currant worms, and not fearing to attack even the monstrous tomato worm.

Those who give most attention to their trees are too apt to confine their regards to the roots and branches, neglecting the trunk. The mutual dependence between root and branch is beginning to be pretty well understood; but the dependence of both upon the trunk has not been properly considered. The owner of a tree will perhaps bestow due attention upon its foliage, blossoms and fruit, and indulge in surmises as to the condition of its roots, but scarcely allows his glance to linger for a moment upon the trunk, when vigilance is more needed here than elsewhere. Precautionary measures or aggressive operations applied here, will be more effective than any system of warfare that we can conduct against the pests of our orchards, vineyards and gardens; as this is the thoroughfare for nearly all of them.

Now if our friends will treat their trees just as they would their live stock, that is, or is liable to be similarly infested, and treat them to a good wash occasionally, they will find that it will operate both as a preventive and cure. Take a bucket of strong soapuds, and apply liberally with a brush or awab, rubbing it up and down the trunk so that it will enter all the crevices in the bark. Apply it early in the spring before the rains have ended, and again in autumn before the winter rains commence. It is more effective when followed by rain as this washes off the bark still more thoroughly, and at the same time carries the soapy substance to the roots which are greatly benefited thereby.

We submitted similar advice to our readers last season; and shall do so in succeeding seasons; for, having practiced the same during a long succession of seasons, we are aware of its efficacy.

If the trunk of the tree, from the ground up to and around the main branches, is properly attended to the top and roots will generally need but little care. It should not be left until it becomes infested or diseased; a good wash will do a healthy, vigorous tree as much good as it does a human being in the same condition; and if the owner reduces this treatment to a system, the whole trunk surface of all his trees come under his observation, as his eye follows the brush, and he thus becomes thoroughly acquainted with their condition. This is a very important consideration in tree culture.

CHINAMAN NO LIKE TULE ROOT.—A few months since an agricultural item of a somewhat sensational character was published, stating that Chinamen had taken to eating tule roots. People generally were about as much elated at this as they would have been at the intelligence that some other animals had taken to eating Chinamen. They are evidently doomed to disappointment in both cases. We are informed by residents of the localities from which these shipments of tule roots were reported to have been made, that it was not tule root at all, but a species of artichoke that grows among the tules. It is an extremely difficult matter to tell what people are fishing for in the water, or grubbing for in the earth; in many cases the fishers and grubbers don't know themselves. But a Chinaman always knows what he is about; he is not going to take to a tule root diet for the sake of adding to the resources of California.

Home Industries.

The California Chemical Paint Company.

The stranger visiting San Francisco is attracted by the light and fresh appearance of its private residences. Instead of the heavy, sombre buildings of the Eastern States, the mildness and equable character of our climate allows the construction of much less substantial and, at the same time, more graceful edifices. What adds largely to the beauty of our private houses is the free use of the paint brush. Of course where paint is such an important article as it is in San Francisco, or for that matter, throughout the State, it is well for our people to become acquainted with the best and most durable manufactures. Prominent among our industries is the

California Chemical Paint Company.

Having their manufactory at the corner of Fourth and Townsend streets. This company are the sole agents on the Pacific coast for the Averill Chemical Paint, which has acquired such an excellent reputation in the East. The inventor of this paint, Mr. D. R. Averill, of Cleveland, Ohio, spent some twenty years in experimenting before he achieved success in producing a paint which has the characteristics most desirable—durability, elasticity, ease of application and beauty of finish.

These Points of Excellence

Mr. Averill claimed to have achieved when he applied for his patent eight years since. From that time to this nothing has been neglected which science or capital could furnish to improve upon Mr. Averill's original invention.

The California Chemical Paint Company are manufacturing under the Averill patent but are constantly endeavoring to improve upon the parent article. The company was organized in this city in 1869, but has only been under the present able management since last spring.

The Officers Are:

President, Tyler Beach; Secretary, M. C. Jewell. At the manufactory on Townsend St., the process of grinding, mixing and packing is carried on. Here may be seen samples of the different shades of paint on hand, and if not just what is wanted, the chemist in charge of the compounding will mix the very tint required.

It is prepared at the manufactory and put up in quantities of a gallon and upwards ready for use. When wanted a quantity can be drawn off—no mixing is required—and if not all used returned to the package. One merit of the Chemical Paint is, any one can use it. The farmer if he wishes to paint his house or his barn has only to buy a brush and a package of this paint and apply it. He becomes a Painter.

For the time being. The value of this paint, aside from its permanency of liquid, consists in affording a means of protection to wood against the action of the elements, and also, as has been proved by experience, forming a coating comparatively

Fire Proof.

The company is also manufacturing a copper paint, which is nearly equal to copper itself for preserving the bottom of vessels from the action of the water and parasites of the sea. An iron paint for coating iron vessels is likewise in great demand. A visit to the manufactory of the California Chemical Paint Co. will well repay any one, and prove that what we have said is not, to use, perhaps, an appropriate expression, too "highly colored."

Straw Burning Engines.

Messrs. Treadwell & Co. have recently received a Hoadley threshing engine, with a number of new improvements, suggested by the necessities of field work in this State. Among the improvements are the cut-off governor, which consists of an arrangement of mechanism so attached to the shaft as to move the eccentric to a different angle with the crank by a change of speed, the centrifugal motion overcoming the tension of a pair of springs, and these springs in turn acting to give the centrifugal force. The fire grate consists of hollow tubes, which are coupled with another set of vertical tubes, standing in front of the flues, and these tubes are connected with the water space, so that the fire is bounded on two sides by this "grillage," as it is called, and enough more steam is made to supply all the waste of the steam blower.

This engine has been adapted to burn straw, and a partial test of the invention was made in front of Messrs. Treadwell & Co's on Saturday last.

The most satisfactory tests were, however, made before the engine was sent from Hoadley's works, and consisted of two trials of four or five hours each, with an ascertained load. During these tests the engine, which is rated at 15-horse power, showed a maximum of 24-horse power and a total average of 18-horse power. Indicator cards were taken from time to time which were more than usually fine. Steam was got up by simply igniting the straw with a match, and no difficulty was experienced in keeping steam up to a high pressure during the entire run. These already popular engines will be rendered more effective than ever for the coming season's work.

APPLES RECEIVED.—A box of most excellent eating apples were received at our office this week. Thanks to the donor. Further notice hereafter.

POPULAR LECTURES.

Economy of the Vegetable Kingdom.

Seventh Lecture Delivered before the University of California College of Agriculture, on Wednesday, January 27th, by Prof. C. E. BESSEY.

[Reported and Illustrated for the Rural Press.]

The Walnut and the Nettle Families. Ingrandaceæ and Urticaceæ.

We take up two families to-day. First, the walnut family, *Ingrandaceæ*—principal genus, *Inglans*—very nearly allied to the oak, is represented by only 30 species, mostly natives of North America. They are valuable for their timber and for their fruits.

Inglans Regia, the so-called English walnut, is a native of the Himalayan portion of Asia. It has long been under cultivation, and it is probably due to this fact that its shell is so thin and so easily broken. It has been introduced in California. Its wood is used for cabinet work in Europe. Its fruits are eaten, and are largely imported to the United States. From them a valuable oil is made.

The black walnut, *Inglans nigra*, of the United States, is one of the largest trees growing east of the Rocky mountain district, and grows to a diameter of six to ten feet. It is

One of the Most Valuable Trees

For its lumber, which is largely used for cabinet work and inside finish. Its fruits, being thick-shelled and rank, are not largely used as food. In Southern California some black walnuts which are native here, and which are a little different from the *I. nigra*, are grown successfully.

The white hickory, *Carya Alba*, called in the East shell or shag bark, white or Ohio bark, is a very large tree of the Eastern U. S., attaining a size of three to four feet in diameter and one hundred feet in height; yield a very valuable timber, which is very heavy, compact, and exceedingly tough, and which is used in ax handles, in wheels, and other parts of carriages. Though suited well for use where strength in a compact form is required, when protected by paint, it is liable when not thus protected to be affected by the powder-post insect, and is therefore not used in buildings. This tree produces delicious nuts.

Pecan nuts are fruits of an allied species, *Carya olivacea*, which might be grown here. There is need of the wood. Ash, which is largely used in the East, might be grown here.

We should try to import the Eastern live oak, and the European oak with its hard wood, and should make careful examination of our woods, such as we have, as to strength of material.

It would also be well to have a collection of woods. Each species should be represented by a cross-section as large as possible to show the character of the bark as well as the wood, also there should be a board as wide as possible, running to the bark, and specimens of fruit, leaves, cones, etc.

The Nettle Family.

Urticaceæ. A large family of nearly 1,000 species, of diverse habits and botanical characteristics, lightly held together, but still existing as four well marked sub-orders.

Sub-order 1. The elms. These are trees or shrubs, and are natives of temperate climates in the northern hemispheres. There are somewhere from 60 to 100 species; many of which are somewhat valued for their wood, it being used in some cases to fill out.

The common elm of Europe, *Ulmus campestris*, is largely grown here for its timber, which is especially valuable for underground use, or for use under water, as in making tile drains. Must either be very dry or wet to last well. It is sometimes grown in the United States as a curiosity or for ornament, and could be grown here.

The American elm, *Ulmus Americana*, is one of the most graceful of all the trees of the eastern forests. Its wood is valuable and is used for many purposes. Its toughness depends on where it is grown. It is not good for fuel, and it inclines to warp when it dries. It extends nearly to the Rocky mountains. There is none found native here. It is highly esteemed for its beauty. An allied species, *U. fulva*, produces the mucilaginous bark known as slippery elm bark, used somewhat in medicine. Hock berries, etc., belong to this order.

Sub-order 2. The bread-fruits and figs, trees or shrubs with a milky juice found in or near the tropics. Upwards of 250 species are known. There are no native species here.

Bread-fruit is produced upon a tree known to botanists as *Artocarpus incisa*. It is a native of many of the islands of the Pacific. It grows to the size of a large apple tree. The fruit is very much like the fruit of the straw-berry; that is, an enlarged, spongy receptacle,

bearing little nnts. The whole mass is about a foot long and is in shape not unlike a melon. [Fig. 1.] These fruits are gathered before they are ripe, roasted and eaten by the natives, and are quite palatable.

In 1793, they were introduced into the West Indies, and now they are grown in nearly all the tropical countries.

The cow tree, *Galactodendron utile*, is a native of Venezuela. It grows to the height of 80 to 100 feet, and forms large forests. Upon incisions being made it exudes a quantity of whitish fluid, which has a pleasant taste, and which is used as a substitute for milk.

The fig, *Ficus carica*, is a native of Western Asia, but it is now grown throughout all warmer regions of the globe. Its fruit is peculiar. It is of considerable interest in this State and no doubt will become more important.

The mulberry, *Morus nigra*, is a native of Western Asia, grown largely in Europe and parts of the United States for its fruit. It is a near relative of the fig.

Ficus elastica, the India rubber tree of Southern Asia, produces the material from which its name is derived; its milky juice being evaporated for this purpose. It has thick, broad, tough leaves. [Fig. 2.] This, however, is not the tree from which most of our India rubber is obtained.

[Allusion to which is made elsewhere in the course of lectures.] The white mulberry, *Morus alba*, is extensively used for feeding silkworms.

Osage orange, *Machura aurantiaca*, is used very largely for a hedge plant. On account of its strong spines and rigid branches, it is especially adapted for this use. It is a native of Arkansas, Louisiana, Texas and other southern localities.

Among the remarkable trees of this sub-order are the upas tree, *Antiaris toxicaria*, a poisonous tree of Java, and the banyan tree, *Ficus indica*, of India.

The banyan has root-like branches and one tree may spread over

Five to Eight Acres.

The paper mulberry, *Broussonetia papyrifera*, of China, Japan, and the islands of the Pacific, grows from 20 to 30 feet in height. Its bark, which is filled with long fibers, is made into paper and cloth. It is cultivated also as an ornamental tree.

Sub-Order 3—The Nettles.

These are herbs, shrubs, or trees and number about 300 species, found in the temperate or warmer climates. The genus *Urtica* includes the many species of nettles, which occur as weeds in temperate climates and as trees in the tropics. All are possessed of stinging bristles which are bad enough in the small species found in our latitude, but which are hardly to be compared to those occurring in India and Australia. One species, *Urtica gigas*, found in the latter country, grows to be a tall tree 70 to 80 feet high, and its sting is so severe as to even threaten death. Cattle coming in contact with its leaves become

Furious With Pain.

Ramie, or the grass cloth plant, *Boehmeria nivea*, is a perennial herb; a native of China. It is coming into cultivation for its fiber, which is made into a fine, linen-like cloth. It is cultivated in the Southern U. S. and in India.

Sub-order 4—The Hemp and Hop.

There are two species, Hemp, *Cannabis sativa*, is a native of northern India. It is grown in the U. S. for its fiber, and in parts of India for smoking. It possesses narcotic properties lying between tobacco and opium. From the dried plant are obtained what are in India known as *Gunjah* and *Bhang*. The first is smoked; the latter, made into an intoxicating drink. The virtues of *gunjah* and *bhang* are concentrated in the resinous matter found on the stems and leaves. It is highly intoxicating, and servants sometimes obtain it by running through the field, allowing their clothes to come in contact with it, and afterwards scraping off the adhering substance. The seeds are sometimes fed to birds for the purpose of rendering them drowsy enough to be caught.

The hop, *Humulus lupulus*, is grown in all countries. In its strobiles it has a secretion, and in this is its virtue, which renders it desirable in the manufacture of beer.

WELL ANSWERED.—In the RURAL PRESS of August 1st, 1874, we gave an article on "Orange, Lemons and Limes near at Home," in which the question was asked, "have these fruits had a fair chance at growing in the vicinity of San Francisco?" It seems they are doing extremely well near at home, whether they have a fair chance or not; for in passing along Montgomery street the other day we saw in the show window of an establishment under the Lick House two clusters of oranges labeled as follows:

"These oranges were raised this winter in the open air by C. L. Beard, in Alameda county, within twenty miles of San Francisco. There can now be seen on the same tree from 300 to 500 oranges from green to ripe. The tree is 17 years old, 18 feet high, and 14 inches in circumference. The cluster broke off from its own weight. Oranges, olives, lemons, dates, figs, grapes, peaches, nectarines, apricots, berries, etc., grow in the same garden."

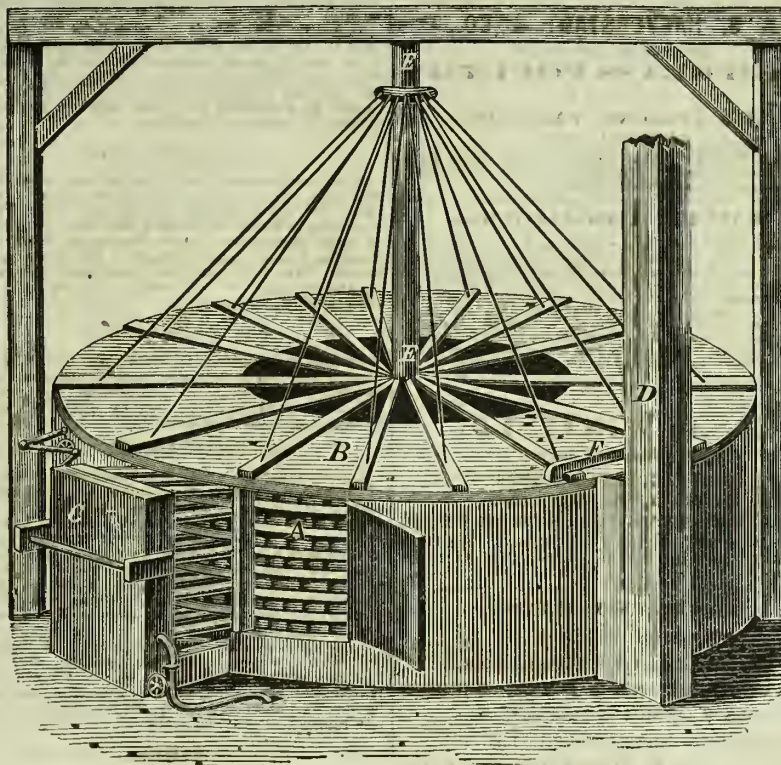
The oranges were large, of a good color, and would have appeared to advantage on any fruit stand. We are assured that this is not an isolated case of oranges growing in the open air in the vicinity of San Francisco.

MILITARY LIBRARY.—David Wilder, Secretary, S. F., sends us a catalogue of some half a thousand books in this library.

A New Fruit Dryer.

The business of fruit drying in this State has, within the past few years, grown to large proportions, and bids fair to be even larger. We now raise much more fruit than home consumption demands, and the consequence of this is that in order to insure the sale of crops the farmers and fruit raisers must dry or otherwise preserve the surplus production. Since it was first demonstrated in California that fruit can be dried with profit a number of fruit dryers have been introduced in the market and several different machines are now in use. We have

the steam coils and is distributed throughout the fruit drying chamber. A steam coil attached to the sliding door, C, is used for giving a greater degree of heat to the fruit as it is first put in. It will be seen that there are several rows of pipes in this movable coil so arranged that a row of steam pipes passes between each two racks of fruit. A small movable partition is inserted between the row of racks, A, which are to be taken out, and the racks holding the green fruit on the left. By this means when the racks holding the green fruit are put in their places, the chamber is revolved sufficiently to place that section in the position where the sliding coil can be run in between the racks; at the same time the door can be opened and the fruit which has been dried can be removed. The

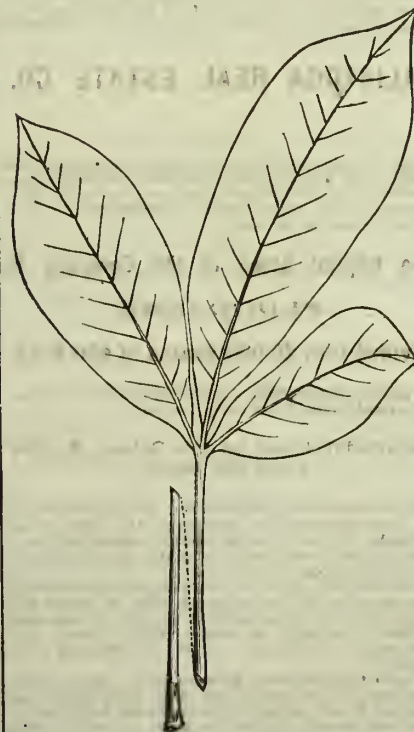


PLUMMER'S PATENT FRUIT DRYER.

described all the processes in use here in the Press and now illustrate and describe a new aspirant for public favor.

The dryer illustrated by the accompanying

Fig. II.



Compound Leaf of India Rubber Tree.

movable coil, C, is to subject the green fruit for a short time to a greater heat than can be maintained in the drying chamber, for "bursting the air cells." The slide on which this coil is placed, is to draw the coil and the partition back, momentarily to allow the racks to be turned as often as each set is filled with green fruit.

Fig. I.

A boiler in another part of the building furnishes steam for the steam coil and for the engine for driving the air pump. An air heater is placed in the furnace under the boiler so that the same fire furnishes both steam and hot air to the fruit dryer. Both boiler and air heating apparatus are placed in a room under the dryer.



Fruit and Leaf of Bread Fruit Tree.

engraving was invented by William S. Plummer of this city, and has been tested practically for over three months, principally on pumpkins. The process is continuous the fruit being placed in racks which are made to revolve and carry the fruit around a horizontal course through heated chambers and back to the place of starting.

By referring to the cut the general plan of the dryer can be seen. B represents a circular drying chamber in which the racks, A, for holding the fruit are carried. This chamber is enclosed by a stationary circular wall which is provided with a door, to get at the racks, as shown. A steam coil passes all around the interior of the chamber on the floor. The heated air from the furnace passes into an air chamber about one foot in height and comes through the perforated floor so that the hot air comes up through

A fan drives the hot air through the drying chamber and through the escape pipe, D.

The revolving chamber in which the fruit is dried, is suspended on a frame by means of iron rods, so that it may revolve around the central support, E. The steam coils are laid on the floor and the hot air enters through the stationary side of the chamber at a point behind the movable coil, C. The hot air thus passes completely around the chamber before it can escape at D. By this means both hot air and steam are used in drying the fruit and as one batch of fruit is dried and removed another batch is put in the chamber. The machine which we examined at Spaulding & Bros., 31 Beale street, is 24 feet in diameter and has room for 140 trays. The trays have a superficial area of about one yard. Six trays are put in about every twelve minutes. Mr. Plummer states that he easily dries 500 trays in a day, for as fast as one batch

is finished another is put in. The capacity of the machine is only limited by the size of the chamber. The same fire heats the air and furnishes the steam for steam coils and engine. This dryer can be attached to any steam engine and boiler now in use at a saving of from \$500 to \$1,000 on the first cost.

The arrangement of this dryer is quite simple, and it seems to be effective. While we were examining the machine one day this week they were drying pumpkins, and those removed from the machine were immediately ground to a fine powder. The amount of pumpkin dust in the room showed plainly that the pumpkins had been thoroughly dried. This finely powdered pumpkin is put up in small packages and sold.

These fruit dryers are sold at a comparatively low price. No. 1, which is 22 feet in diameter, is sold for \$2,500; No. 2, which is 24 feet in diameter is \$3,000, and No. 4 is sold for \$4,000 and is 28 feet in diameter. No. 3 has 24 sections and holds 168 trays. There are seven trays to each section in all the different sizes. These prices include the whole machine, engine, boiler, pump, steam coils, patent right and all; parties buying only furnishing their own building. The engine furnished is five horse power, and may be used for other purposes, such as pumping, etc. Mr. Plummer is confident that he can introduce his dryer all over the State, as its construction is so simple that he can sell it cheap. As will be seen from what we have said its capacity is great, and the operation of drying is continuous. As fast as one tray is put in another is removed, by simply turning the revolving chamber one section, the catch F, regulating it so that the trays always come exactly in front of the doors. The machine is easily revolved by a light crank, the position of which is close behind the escape pipe, D. The arrangement of the movable coils, C, is particularly ingenious, as considerable heat is concentrated exactly where it is wanted; and at the time it is wanted, namely, when the fruit is first put in the dryer. The machine does not take up much room and may be erected in a shed. The walls of the revolving chambers are lined with felt to prevent the escape of heat. The hot air is compelled to pass through all the fruit in the dryer before it can escape, and the steam coils extend around the whole machine. It will be observed that this fruit dryer differs from others now in use in several particulars, and it is the only one in which a horizontal revolving motion is accomplished. Those desiring further information concerning it can send for circulars to Spaulding & Bros., 31 Beale street, in this city.

HORTICULTURE.

Stockton Nurseries.

EDITORS PRESS:—On Monday, March 1st, I visited the Stockton Nursery, situated two and one-half miles from Stockton. Mr. W. B. West is the proprietor, this nursery was established in 1852, and is one of the oldest on the Pacific coast. There is forty acres of grape vines, 30 of which are in full bearing, being from 7 to 15 years old. The 10 acres are quite young, a part of which was planted in 1874. The grape crop last year amounted to 150 tons. Mr. West says his grapes are largely foreign, including Black Prince, Black Hamburg, Black Farara, Flaming Tokays. He has planted largely for raisins, the Malaga, Sultan and Corinth. Our county, and especially our immediate vicinity, is exceedingly well adapted to growing grapes for table and raisins, but at the present low rates of fruit in San Francisco, table grapes will not pay as well as raisins. I am, therefore, planting and grafting my vines into varieties that will dry. I have great hopes of the White Malaga, the Sultan, and Zante Currant. The former will make a very good raisin and is an enormous bearer; the two latter have proved themselves good bearers and dry very easily. The Muscat of Alexandria is, with me, a very poor bearer, never setting the first crop well, and the second, being late, is not of much value. Among the table grapes the Black Prince takes the lead, usually sold under the name of the Rose of Peru. It is a fine, large grape and an abundant bearer, but it ripens at a season when the market is flooded with fruit and the price is low. The Purple Damascus, on land that will produce it to perfection, is a splendid grape and very profitable. The Black Farara is a late grape of large production and will keep three months in a box when properly packed. It is the best shipping grape I know of.

I have a good collection of figs—many new kinds—some of the best drying kinds, and some large fruited kinds for market, many of them will bear the coming season. I will soon be able to determine their value. They are mostly imported from France and Italy direct. I make it my duty to have as complete a collection as possible to suit the retail trade, especially of the interior valleys; I have, for that reason made a specialty of grapes, figs, nuts and prunes, believing that the future planting will be of these classes of fruits. I have most of them in bearing. In the ornamental line I believe I have as complete an assortment as can be found in the State, and well suited to the climate.

J. W. RILEY.

Stockton, March 2, 1875.

[Our readers will find this establishment among the nurseries advertised in our columns.—EDS. PRESS.]

BREEDERS' DIRECTORY.

POURCHASERS OF STOCK WILL FIND IN THIS DIRECTORY THE NAMES OF SOME OF THE MOST RELIABLE BREEDERS. OUR RATES.—Six lines or less inserted in this directory at 50 cts a line per month, payable quarterly.

CATTLE.

R. ASHBURNER, Baden Station, San Mateo Co., Cal., breeder of Short-horn cattle. Pure Bred Bulls for sale, from cows of choice milking strains.

J. BREWSTER, Galt Station, Sacramento Co., Cal., breeder of Short-Horn Cattle.

J. D. CARR, Gabilan, Monterey Co., Cal., breeder of Trotting Horses, Short-Horn Cattle, Thoroughbred Spanish Merino Sheep and Swine.

A. MAILLARD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.

W. L. OVERHISER, Stockton, San Joaquin Co., Cal., breeder of Short-Horn Cattle and Berkshire Swine.

PAGE BROTHERS, 304 Davis street, San Francisco, (or Cotate Ranch, near Petaluma, Sonoma Co.); Breeders of Short-Horns and their Grades.

STANTON & POWERS, Sacramento, Cal. Breeders of Jersey Heifers and Bull Calves at low rates. Address L. C. Powers, Sacramento, Cal.

MOSES WICK, Oroville, Butte Co., Cal., breeder of Short-Horn Cattle. Young bulls for sale.

SHEEP AND GOATS.

MRS. ROBERT BLACOW, Centerville, near Niles Station, Alameda Co., Cal. Pure-Blooded French Merino Sheep for sale.

THOS. BUTTERFIELD & SONS., Hollister, San Benito, Cal. Importers and breeders of Angora Goats and Sheep.

N. GILMORE, El Dorado, El Dorado Co., Cal., importer and breeder of Angora Goats.

LANDRUM & RODGERS, Watsonville, Santa Cruz County. Pure-Bred Angora Goats and Cotswold Sheep for sale.

SEVERANCE & PEET, Niles, Alameda Co., Cal., breeders of Thoroughbred Spanish Merino Sheep.

A. G. STONESIFER, Hill's Ferry, Stanislaus Co., Cal., breeder of Pure-Blooded French Merino Sheep.

L. M. SHIPEE, Stockton, Cal. Importer and Breeder of Spanish Merino Sheep, Durham Cattle and Essex Swine.

POULTRY.

GEO. B. BAYLEY, Cor. 16th and Castro streets, Oakland, Cal. Imported Brahmas and other choice Poultry for sale.

ALBERT E. BURBANK, 43 and 44 California Market, San Francisco, importer and breeder of Fancy Poultry, Pigeons, Rabbits, etc.

M. EYRE, Napa. Bronze Turkeys, Emden Geese, Choice Fowls, Pigeons, Rabbits, Ferrets.

Mrs. L. E. McMAHAN, Dixon, Solano Co., Cal. Bronze Turkeys now ready for sale from the best imported stock; also eight varieties of choice Chickens; Eggs in season can be purchased very reasonably.

Mrs. L. J. WATKINS, Santa Clara. Premium Fowls. White Leghorns, S. S. Hamburg, Game Bantams, and Aylesbury Ducks. Also, Eggs. 21v8.3t

Poultry Breeders.

S. H. COOK,

BREEDER OF

CHOICE LIGHT AND DARK BRAHMAS,

B. B. R. Game Bantams,

Mammoth Bronze Turkeys,

TOULOUSE, BREMEN AND AFRICAN GEESE, ROVEN AND MUSCOVY DUCKS.

Some choice Light and Dark Brahmas for sale. Also, Bronze Turkeys. Address

S. H. COOK,

McDonald's, Washington Co., Pa.

Send for Price-List.

EDGORTH POULTRY YARDS.

R. F. SHANNON,

Breeder of

Light and Dark Brahmas, Silver Duckwing and Black Breasted Red Game Bantams.

P. O. Box 665. PITTSBURGH, PA. Light Brahma Eggs, \$3, gold; Dark Brahma Eggs, \$5; Bantams Eggs, \$3. Orders received for Pigeons to be delivered in the Fall. At Pittsburgh Show, January, 1875, on 4 couple fowls and 8 couple pigeons, won 6 firsts, 2 second, 1 third and 2 specials.

R. H. PECK,

BREEDER AND SHIPPER OF

Fancy Poultry and Eggs, From Pure and Imported Stocks.

Having been very successful as an exhibitor, I solicit patronage. Address, with stamps, R. H. PECK, Earlville, Portage County, Ohio.

OAKDALE POULTRY YARDS.

SATISFACTION GUARANTEED.

Light Brahmas, Dark Brahmas, Buff Cochins, BRONZE TURKEYS, AYLESBURY AND ROVEN DUCKS.

A. A. MILLER,

Oakdale Station, Allegheny Co., Pa.

Correspondence Solicited.

LOOK!

ALBERT E. BURBANK, Importer and Breeder of Fancy Fowls, Pigeons, Rabbits, etc. Also Eggs for hatching from the finest of imported stock. Eggs and Fowls at reduced prices, send for Price List.

ALBERT E. BURBANK,

1v8-3m 43 & 41 Cal. Market S. F.



E. M. Hively's Poultry Yards,

YOUNGSTOWN, OHIO.

20 Varieties Land and Water Fowls,

—ALSO—

PIGEONS AND EGGS IN SEASON.

Correspondence Solicited.

J. S. BEANER,

BREEDER OF

WHITE LEGHORNS.

My fowls are from stock that took the Special Premiums at the Boston Poultry Show in 1873 and 1874. Also at Pittsburgh this year. Eggs \$3 per setting. My P. O. address is Rochester, Beaver County, Pa. Correspondence Solicited.

J. S. HALVERSTADT & CO.,

Breeders and Shippers of

HIGH CLASS POULTRY

Embracing all

THE LEADING VARIETIES, LEBTONIA, OHIO.

Chicken Eggs, \$3; Turkey Eggs, \$5; Wild Geese Eggs, \$5. Letters of inquiry promptly answered. Descriptive Circulars and Price Lists sent on application.

WHITE LEGHORNS.

I make these fowls a specialty, and have spared no pains or trouble in procuring stock from the finest strains in the United States, and now offer eggs for hatching at Eastern prices from the finest fowls on the Pacific coast. They are small, early, non-maters and very hardy, and for eggs are without a rival, being almost constant layers, and are truly styled the "farmer's fowl." Eggs, \$3 per dozen, (13) or six dozen for \$15. Securely packed to carry any distance, and delivered to the express on receipt of price. Cash to accompany order and orders taken in rotation.

Schastopol, Sonoma county, Cal.

W. J. HUNT.

T. A. WINFIELD,

Hubbard, Ohio.

Breeder of CHOICE POULTRY, BRAHMAS, COCHINS, BLACK AND RED GAMES, GAMEBANTAMS, HAMBURGERS AND POLISH.

Also, Choice collection of Fancy Pigeons. Send for Price-List. Eggs for sale in season, from \$3 to \$6 currency.

C. B. ELBEN.

I make a specialty of

Fine Light Brahmas,

AYLESBURY AND CALL DUCKS

BLACK AFRICAN BANTAMS, &c.

Send for my new Catalogue and Price List.

C. B. ELBEN, Pittsburgh, Pa.

Lands and Homes for Sale.

NINE FINE

FARMS FOR SALE.

Near Middletown, Lake county, containing respectively 1600, 1100, 600, 300, 200, 200, 130 and 80 acres. The most of these places contain as fine land as there is in California, and the home market averages twenty per cent. higher than San Francisco. When we take into consideration the quality of the soil, certainty of crops, the market caused by the development of mines and the Mineral Springs, the climate and privileges of schools and religious society, we are satisfied that no such inducements can be offered in any other part of the State, to those desiring to purchase land.

Having examined all these places personally, we can give a minute description of each. Apply to

JOSEPH PETTIT,

or WM. GORDON, No. 215 Kearny Street, Up Stairs.

Ring the Bell. 3v9-1f

NEWARK

LAND COMPANY,

San Francisco Bay, Alameda Co., Cal.

Title Perfect. Incorporated.

The NEWARK LAND COMPANY is now assuming shape; the Guarantee Fund paid in. This Company will be prepared in March to take 3,000 people by steamboat and railroad to their town and lands in one excursion, which will be advertised. By reference to the Coast Survey Chart it will be seen that at Potrero Point, in front of Newark, the deep water comes all the way through the channel from the Pacific, with the C. P. R. running in a direct line through Livermore Pass, making this the connecting point between all parts of the United States, and by deep water to all parts of the globe and the greatest manufacturing point on the Bay of San Francisco—plenty of water, good climate, excellent soil and easy communication. This land will be sold at auction in April, in acres and lots. This company will commence active operations in building, etc., soon. For all information, circulars, maps and subscription, apply at the office of the company, 405 1/2 California street, basement, opposite Bank of California, San Francisco.

CHAS. R. PETERS, Manager.

5,500 ACRES

Of the best portion of the old NOMELOCKE RESERVATION, in Tehama County, for sale very low; only five dollars per acre: one-third down, one-third in one year and one-third in two years, with interest at one per cent per month. Will be sold all together or in two parcels. This is one of the finest tracts of grazing land in Northern California; is abundantly watered by numerous perpetual springs and has two miles of the Eldor Creek, a clear mountain stream. Its grass never fails from drouth, and is of the best quality for sheep and has no clover burr. 800 acres of level plow land; timber for posts, fuel, etc. Enquire of ALLEN WILCOX, Los Angeles, or F. B. WASHINGTON on the tract, twenty miles west of Tehama.

FOR SALE.

In the Riverside, New England and Santa Ana Colonies, in the valley of the Santa Ana river, San Bernardino county, California, twenty thousand (20,000) acres of clean, rich, level, valley land, with an abundance of water for irrigation. There is no better land in the State for the orange and all other semi-tropical fruits, and no finer climate in the world. Inquire of W. T. SAYWARD, 420 Montgomery street, San Francisco; S. C. EVANS, Fort Wayne, Indiana; O. I. HUTCHINSON, 314 California street, San Francisco; L. UPSON, General Agent, Riverside, San Bernardino county, Cal.

CALISTOGA

REAL ESTATE COMPANY.

Calistoga, with a population of about 800 persons, is a village watering place at the head of the valley of Napa, in California. It is four hours' travel north of San Francisco by steamboat and rail. Its shipping port is Vallejo, on the bay of San Francisco, forty miles distant by rail. It lies at the head of the most charming valley in the State.

THE BEAUTIES OF NAPA.

In traversing this thirty-seven miles of fertile dale, the eye never wearies. If one ascends the sides of the leafy mountains that bound the valley on either side: whether looking up the valley or down, and from whatever point of view, the scene is one of ravishing beauty.

Mounting the summit of St. Helena, which towers over all, far to the east the snowy Nevada's bound the view; and to the west spreads the Pacific ocean, with its winged ships and its blue horizon. To the north are the vast forests of Mendocino, its stately trees, turned to shrubbery and Clear Lake in its pride of expanse dwindled to a mill dam.

THE WARM SPRINGS.

From the beauties of Calistoga we turn to its other attractions. The estate covers 2,000 acres of fertile land. Its warm springs are crowded with invalids, who flock to its healing waters, and who return cured of their rheumatism, their dyspepsia, their torpid livers and their tender kidneys. The medicinal elements of the hot springs are principally iron, magnesia and sulphur. In this climate, the season of water ing places is prolonged.

THE SURROUNDINGS.

By consulting a map it will be apparent that Calistoga is destined to become a commercial town of importance. It is the center to which converge innumerable highways leading to many of the richest cultivated valleys of California.

INDUSTRIAL ENTERPRISES.

A new industry is now being introduced at the head of the valley of Napa, which will give easy employment to all the boys and girls, and contingently it will support other new industries. It is but the beginning of many others. Three miles below Calistoga is selected as the site of a large factory for saving and canning fruits and vegetables test now go to waste, and encouraging the production of more. In no part of California can these healthful elements of human food be cultivated more cheaply or more abundantly. Considering the depth of its rich soil, its prolonged season, and the extraordinary vegetable growth in this country, one acre may be considered equal to three where ever this industry is carried on in the Atlantic States. If irrigation be wanted, artesian waterflow may surely be found all along the valley, for it is backed by mountain ranges full of living waters.

MINES:

GOLD AND SILVER AND QUICKSILVER.

Calistoga is the center also of a great mountain range rich in mines of cinnabar and silver. Already its furnaces are producing mercury, and the product is increasing yearly. A number of valuable mines are now being profitably developed in the region around the base of Mt. St. Helena, at Plute Flat, on the Great Geyser road, and near Sillies' Mill, on the Clear Lake road. All of these are from ten to fifteen miles beyond Calistoga, to which point their products come, and from which their supplies are carried. The deposits of cinnabar occur in well defined veins, and as they are now being scientifically developed they bid fair to rival in productivity the celebrated mines of New Almaden.

CALISTOGA REAL ESTATE CO.

The splendid property above described, containing 2,082 acres, divided into town lots, suburban lots, country seats, hotel property and farm tracts, has been bought by the above named company, and is now offered for sale to the public.

The Capital Stock of the Company is \$1,000,000,

Divided into 20,000 Shares of \$50 Each.

The sale of a certain number of shares has been authorized by the Board at the rate of

Twenty-five Cents on the Dollar, Making 12.50 Per Share.

By an arrangement between the former owner and the present company, no portion of this land or the proceeds of its sale, is consumed by expenses or in even the smallest degree diverted from the use and benefit of the stockholder.

Whoever buys Stock in the Company receives his pro rata share of this property, with its Crops and Rents in the meantime, without one cent of deduction for expenses of any kind, even including Taxes. And this, too, no matter how valuable the property shall become.

Unlike the homestead schemes which have heretofore attracted our people, this plan gives homes and interests in and adjoining a town already built; where trade and growth are already assured, and where daily increase gives promise of greatly added values to all its property. It is a division of this ripened heritage that is now offered to the subscribers.

TRUSTEES:

E. W. BURR, President Savings and Loan Society.

C. HARTSON, President Bank of Napa.

J. B. FRISBIE, President Vallejo Commercial Bank.

JULIUS WETZLAR, Pres. Capital Savings Bank, Sacramento.

COLONEL J. P. JACKSON, San Francisco.

WILLIAM H. MARTIN,

GENERAL AGENT,

Cor. Webb & California Sts., San Francisco.

FOR SALE.

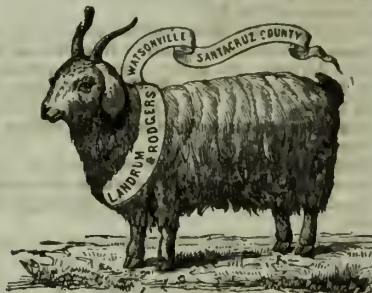
HOMESTEAD AND FRUIT ORCHARD

About thirty-five miles from Stockton, containing three acres of land, a good house of eight rooms, good well, etc. Over two hundred fruit trees all in fine bearing order; such as Peach, Pear, Apricot, Apple, Plum, Figs, Oranges. A fine chance and a good market. Price, \$1,800. Title perfect. Apply to

GEO. W. CHAPIN,

434 Montgomery street, S. F., or this Office.

Live Stock Notices.



We respectfully invite the attention of wool growers to our fine stock of Cotswold Sheep and Angora Goats. We have 200 head of Pure Bred Angoras to select from; we have some of the finest Goats in America; we guarantee everything we sell to be as represented; our prices are as low as any in America for the same grade of stock. Call and see, or address,

LANDRUM & RODGERS,

13v7-cow-1f

Watsonville, Cal.

The Imported Draft Stallion, ADOLPH,



Will make the Season of 1875 at the Stable Proprietor,

COR. FOURTEENTH AND MISSION STREETS, SAN JOSE, COMMENCING MARCH 1st, AND CONTINUING FOR NINETY DAYS.

Adolph was imported from Belgium to Illinois in June, 1872, and to California in October last. He is a pure-bred Draft Horse, of the French Farnamback stock, of a dark brown color, good life, kind disposition and fine movement for a horse of his size. Is seven years old, 16 1/2 hands high, and weighs 1,650 pounds.

Terms, For the Season - - - \$25.00. Payable during the season in U. S. gold coin, or \$10 paid down and \$15 payable when mare is known to be with foal.

Mares from a distance can be kept on good pasture and cared for at \$4 per month. All accidents and escapes at the risk of the owner.

I have imported 12 head of the same stock of horses from Illinois, and invite examination and comparison with any stock of the class in the State. Four three-fourth blood stallion colts for sale. Can be seen on my farm, three and one-half miles east of the city.

L. V. WILLITS.

GABILAN HERD Spanish Merino Sheep.

I have just purchased of Mr. George Hammond, of Vermont, three car-loads of Spanish Merino Sheep, (335 head, Ewes and Bucks) which, with others that I purchased last Fall, (also direct from Vermont) makes my band of Thoroughbred Spanish Merinos about 650 head.

I am prepared to sell both Bucks and Ewes, of Pure Blooded Spanish Merinos—as good as can be had in the World—so says Mr. Hammond. Parties interested will please give me a call. I am ten miles from Salinas City, Gabilan P. O., Monterey county.

J. D. CARR.

N. B.—I have also Good Graded Bucks for sale, and can dispose of some Good Graded Ewes.

J. D. C.

12 Short-Horn Bulls,



fat and sleek, thoroughbred, just from Kentucky, at SAXE'S Stables, 36 Ritch Street, between Folsom and Harrison, two blocks from Grand Hotel. Inquire at SAXE'S Stables, or Room 32 Rnas House. 3v9-3m

THE ALDEN

Fruit Preserving Company OF CALIFORNIA.

Is now prepared to sell rights and furnish the necessary machinery for using the "ALDEN PROCESS," acknowledged to be the best method known for preserving Fruits, Vegetables, Meats, etc.

For full particulars call at the company's

Office, 426 Montgomery St., S. F.

G. W. DEITZLER, President.
W. M. WHERRY, Vice-President.
FRANK PYLE, Sec'y and Supt.
BANK OF CALIFORNIA, Treasurer.

Hiv7-5m

Nurserymen.

Established 1853.

Stocks for Nurserymen.

Plum Seedlings, Mirobolan, the best French stock, does not sucker..... \$50 per 1000
 Apple Seedlings..... 10 per 1000
 Pear Seedlings..... 12 per 1000
 Cherry Seedlings, Mazzard..... 20 per 1000
 Walnut, English, 4 to 6 feet..... 15 per 100
 Cork Elm, best Elm, 4 to 6 feet..... 15 per 100
 Blue Gum or Eucalyptus, in variety..... 5 to 10 per 100
 Magnolia Grandiflora.....
 Magnolia Acuminata.....
 Magnolia Tripetala.....
 Golden Arborvitae.....
 Crataegus Arbutifolia.....
 Swedish Juniper.....
 Irish Juniper.....
 Heath-leaved Arborvitae.....
 Heath, Mediterranean..... \$2 50 per doz.
 Lauristinus, 6 to 12 in..... 2 50 per doz.
 Making the growth of Oranges and Lemons a specialty, I have imported from all sources the best known varieties, and now offer five thousand Grafted Trees properly worked and twice transplanted at \$18 per dozen. Grafted oranges by the 100 or 1,000 at prices on application. The amateur in want of large PALMS, large AURICARIAS, large CAMELIAS and large TREE FERNS, a good stock on hand; also the usual large stock of fruit and ornamental trees.

BERNARD S. FOX,
 San Jose, Cal.

THOS. MEHERIN, Agent, 516 Battery Street, San Francisco. 24v83m.

Fruit, Shade and Ornamental

EVERGREEN TREES

-AND-

Plants for Sale.

At the old stand, corner Oregon and Battery streets, directly opposite Post Office, San Francisco.

I NOW OFFER FOR SALE

The Largest and Best Collection of Fruit, Shade and Evergreen Trees and Plants ever offered in this market, and at Reduced Prices.

Persons laying out new grounds would do well to call and examine our stock before purchasing elsewhere.

ORDERS FROM THE COUNTRY

Promptly attended to and packed with great care. A large stock of Cypress, Pines and Blue Gums for sale very low. Send for Price Catalogue.

Agent for B. S. Fox's Nurseries, San Jose. Address

THOMAS MEHERIN,

P. O. Box, 722, 516 Battery St., S. F.

F. LUDEMANN. RUD. MICHELSEN.

PACIFIC NURSERY,

Baker St., Between Lombard and Chestnut, San Francisco, Cal. P. O. Box 475.

We offer this Season a Large and Complete Selection of Well Grown

EVERGREEN AND DECIDUOUS TREES AND SHRUBS, FLOWERING AND ORNAMENTAL PLANTS

At very reasonable Prices. Our Descriptive Catalogue of Evergreens and Deciduous Trees and Shrubs, and our Wholesale Trade List (For Dealers and Nurserymen) will be sent on application. All Orders promptly filled.

F. LUDEMANN & CO.

BELLEVUE NURSERY,

Telegraph Avenue, Oakland.

WE OFFER FOR SALE THE PRESENT SEASON A LARGE ASSORTMENT OF

Ornamental Trees and Shrubs

OF BEST TRIED VARIETIES.

Many fine specimens of good size can be seen on the grounds to select from. Choice collections (true to name) put up for those desiring a garden. Street cars pass every fifteen minutes.

3v9-tf S. NOLAN.

KING'S NURSERY,

Twenty-fifth St., bet. Telegraph & Broadway OAKLAND, CAL.

Fruit, Shade and Evergreen Trees, Shrubs, Roses, etc. Persons laying out new grounds would do well to call and examine our stock before purchasing elsewhere. A large stock of EUCALYPTUS, including BLUE GUM Pines and OXYPHES from six inches to twelve feet high. Acacias in Variety; Young Stock for Nurserymen; Pines and Cypress; Three Thousand Magnolia Grandiflora from six inches to five feet high; Camellia Japonica; Gardenia Cape Jessamine; Arbutus in Variety, at Lowest Rates. Orders attended to, Address, M. KING, Nurseryman, 3v9-3m, Oakland, Cal.

PEACHES, APRICOTS AND PLUMS

are specialties at the Vacaville Nursery, Solano Co., Cal. Alexander's Early, Thurber and Peento in bud, 50 cents each. Beatrice, Louise, Rivers' Early, Lord Palmerston Lady Palmerston, Prince of Wales, Princess of Wales, Piquet's Late, Lady Parham, Italian Dwarf, Golden Dwarf, Bloodsaver and many other varieties of new Peaches in bud, at 25 cents each; Trees of Alexander's Early, \$1 each. Beatrice, Plowden, Freemason and a general assortment of the leading varieties, 25 cents each; Apricots, Plums, Apples, Pears, Cherries, Almonds, Figs, Olives, Pomegranates and including most of the leading varieties of fruit for sale at low prices. D. E. Hough, Vacaville, Solano Co., Cal.

1852.

ESTABLISHED IN 1852.

THE STOCKTON NURSERY

I have for sale for the ensuing season a Large and Well Grown Stock of All Varieties of

FRUIT TREES, SHADE, ORNAMENTAL

and

EVERGREEN TREES,

GREENHOUSE PLANTS, AUSTRALIAN GUMS, SHRUBS, ROSES, BULBS, PALMS.

Send for Catalogue.

W. B. WEST, Stockton, Cal.

Metropolitan Nurseries,

Lombard Street,

Between Polk & Larkin Streets, at the Terminus of the Clay Street Hill Railroad.

MILLER & SIEVERS, PROPRIETORS.

FLORAL AND SEED DEPOT,

NO. 27 POST STREET, San Francisco.

Our stock of plants, comprising a most selected collection of Flowering and Ornamental Plants for the garden and the conservatory.

ROSES, over 200 varieties.

PINKS, 100 varieties.

DAHLIAS, 60 varieties.

PALMS, 40 varieties.

FERNS, 100 varieties.

ORANGES & LEMONS, 30 varieties

Our assortment of Flowering Bulbs is complete. Always on hand a choice and fresh lot of

TREE, SHRUB AND FLOWER SEEDS.

CUT FLOWERS, BOUQUETS, FUNERAL WREATHS and FLORAL DECORATIONS furnished at short notice and on reasonable terms.

Orders from any part of the country promptly filled.

Encalypsus globules, (Blue Gum) seed, fresh invoice \$15.00 per pound.

New catalogue now ready, gratis on application.

J. ROCK'S NURSERIES,

San Jose, California.

We offer this season a Complete Stock of

FRUIT AND ORNAMENTAL TREES,

SMALL FRUITS AND PLANTS.

The attention of Dealers, Nurserymen and Planters is invited to our Large Stock of Fruit Trees. All Leading Market Varieties are grown in large quantities. To all those purchasing largely we will make a Liberal Discount. Catalogues FREE on application.

23-v8-tf JOHN ROCK, San Jose, Cal

PEPPER'S NURSERIES.

(Established in 1858.) PETALUMA, CAL. Green Houses and Tree Depot corner Washington and Liberty streets.

4 Green Houses. 3,000 feet of Glass. Fruit Trees a Specialty.

We offer for sale at lowest market rates a general assortment of Fruit and Shade trees, small Fruits, Vines etc. Evergreen trees and Shrubs in great variety. Green House, Conservatory and Bedding Plants, Roses, etc. We are now ready, Nov. 1st, to fill orders for trees and plants. Catalogue and price list furnished on application.

Address, W. H. & G. B. PEPPER,

19-v8-tf Petaluma, Sonoma Co., Cal.

SUPERIOR FRUIT TREES

TRUE TO NAME.

A fine collection of Evergreen and Deciduous Trees. Australian Gum Trees in variety, by the hundred or thousand. Monterey Cypress in quantities and sizes to suit all. Orange and Lemon Trees at reduced prices. A general variety of Nursery stock.

Also, Rhubarb and Asparagus roots.

T. CORLEY.

18-v9-2tf 315 Washington Street, S. F.

HOP ROOTS FOR SALE.

I have a lot of choice HOP ROOTS, and also healthy BLACKBERRY SETS for sale at LOWEST RATES. Orders may be addressed through DEWEY & CO., of the Rural Press, San Francisco; ROBT. WILLIAMSON, Capital Nurseries, Sacramento; or to me,

OALVERT T. BIRD,

24-v8-3m San Jose, Cal.

KELSEY'S NURSERIES,

OAKLAND, - - - - - CAL.

Established 1852.

More largely stocked this year than any previous year. Embracing all and every kind of

FRUIT, DECIDUOUS, ORNAMENTAL AND

FLOWERING TREES AND

PLANTS, ETC.

Send for Catalogue and Price List free on application.

W. F. KELSEY, Prop.

TREES, Etc.

We offer for Spring, 1875, an unusually large stock of well-grown, thrifty

Standard and Dwarf Fruit Trees; Grape Vines, Small Fruits; Ornamental Trees, Shrubs, Roses; New and Rare Fruit and Ornamental Trees; Evergreens and Bulbous Roots; New and Rare Green and Hot-house Plants.

Small parcels forwarded by mail when desired.

Prompt Attention Given to all Inquiries. Descriptive and Illustrated Priced Catalogues sent, prepaid, on receipt of stamps, as follows:

No. 1—Fruits, 10c. No. 2—Ornamental Trees, 10c. No. 3—Greenhouse, 10c. No. 4—Wholesale, Free.

Established in 1840. Address,

ELLWANGER & BARRY,

Mount Hope Nurseries, ROCHESTER, N. Y.

Camellias.

We offer a large stock of these plants at low rates, ranging from 50 cts. to 1.25, according to size. They are unusually healthy and vigorous, and embrace the best white and colored sorts. Prices of the different sizes will be forwarded on application, as well as the Descriptive Catalogue. In ordering, please advise as to the mode of shipment.

We offer also Chinese Azaleas, Gardenias, etc., as well as the best and most rare DECIDUOUS and EVERGREEN

TREES AND SHRUBS.

R. B. PARSONS & CO.,

FLUSHING, NEW YORK.



BAY NURSERIES

and Seed Store.

Established 1852. P. O. Box 331.

OAKLAND, CAL.

An immense collection of Evergreen Trees, Shrub and Flowering Plants, wholesale and retail. I invite inspection. Catalogues on application.

JAMES HUTCHISON, Prop.

Thos. A. Garey's

Semi-Tropical Nurseries.

LOS ANGELOS, CAL.

Forty varieties of the Citrus family of semi-tropical trees, including many rare and beautiful, as well as useful and profitable kinds.

Grafted and Budded Orange Trees a specialty. Trees packed to arrive in good order. Priced Catalogue sent free. Address me P. O. Box, 528, Los Angeles city, Cal.

23-v8-6m

THOS. A. GAREY.

ALMOND TREES.

35,000 Brier's Languedoc Almond Trees. One and two years old from the bud. This is the only Almond planted on a large scale, being hardy, late blooming, beautiful tree. It bears the second year from planting. The Almond is large and sweet with soft shell. Also, two year old Peach and English Walnut trees. Liberal terms to the trade and persons planting large orchards. Send orders to

W. W. BRIER,

21-v8-3m Centerville, Alameda Co., Cal.

NO THORNS TO SCRATCH.

Hoosac Thornless Blackberry.

Quality and Productiveness unequalled. Hardy. Never has winter killed. One plant by mail 5 cts.; six plants, \$2.25; 12 plants \$4.00. Full history, plate and testimonials, free to all. Address FRANK FORD, Ravenna, O. Discount to Granges and dealers on large orders.

Pomona Nursery.

One hundred acres in small fruits. Largest and best varieties. Plants by mail. Send for illustrated catalogue (32 pages) telling what and how to plant, with 36 years experience.

WM. PARRY,

Cinnaminson, N. J.

BLOOMINGTON NURSERY, Bloomington, Ill.—F. KRENIX. Spring lists free, or the set of four catalogues post free for twenty cents.

No Agents are authorized to receive subscriptions for this paper at less than our advertised rates.

Seedsman.

1875. Established 1857. 1875.

Capital Nursery and Seed House

W. R. STRONG and ROBERT WILLIAMSON, Proprietors, having united their interests in the Seed and Tree business, offer to the public the largest and finest growth of both Seeds and Trees ever offered to the California public, of their own production, and also from the largest and most reliable houses of the Eastern States and Europe, all of which we offer as low as Eastern Dealers.

TREES. TREES. TREES.

Fruit, Shade, Ornamental, Evergreen, etc., raised in our Nurseries of the very best varieties. Dealers and Growers furnished at very lowest rates. Among our numerous varieties we call especial attention to BRIGGS' RED MAY PEACH, the earliest known, large, handsome of excellent flavor and good shipper.

SEEDS. SEEDS. SEEDS.

Vegetable, Flower, Field and Tree Seeds, and Flowering Bulbs and Plants.

100,000 pounds Finest Quality California ALFALFA, RED and WHITE CLOVER, KENTUCKY BLUE GRASS, RYE GRASS, ORCHARD GRASS, VERNAL GRASS, MESQUIT GRASS, TIMOTHY, RED-TOP GRASS, and every other Grass adapted to the Pacific States and Territories.

All the finer qualities of our Seeds will be forwarded by mail (post-paid) to customers at Catalogue rates, on receipt of money, which can be sent by postal orders or registered letters, or express, at our risk.

CATALOGUES AND PRICE LISTS on application, and forwarded by mail.

WAREHOUSE, 8 and 10 J Street. NURSERIES, U Street, SACRAMENTO CITY. TREE YARD, I Street, next to Library Building.

W. R. STRONG & CO.



Grangers' Bank of California

INCORPORATED APRIL 27th, 1874.

Capital \$5,000,000, in 50,000 Shares of \$100 each.

Directors:

PRESIDENT—JONATHAN V. WEBSTER..... Alameda County
 V. PRESIDENT—O. J. CRESSEY..... Stanislaus County
 THOMAS MCCONNELL..... Sacramento
 JOHN G. HILL..... Ventura County
 J. V. WEBSTER..... Alameda County
 JUSTICE C. MERRYFIELD..... Solano County
 J. LEWELLIN..... Napa County
 GILBERT W. COLBY..... Butte County
 J. P. CHRISMAN..... Contra Costa County
 F. J. WOODWARD..... San Joaquin County
 C. S. ABBOTT..... Monterey County
 F. A. CRESSEY..... Secretary.

Office, 415 California Street,

SAN FRANCISCO. - - CALIFORNIA

The Bank was opened on the first of August, 1874, for the transaction of ordinary Banking business.

Current Accounts are opened and conducted in the usual way, and interest at the rate of 4 per cent per month is allowed on the minimum monthly balance.

Deposit Receipts in sums of \$50 and upward received, and receipts given for the amounts, repayable on 30 days' notice of withdrawal. These deposits bear interest at rates varying with the current rate of discount.

Deposits for Fixed Periods are received, and interest allowed at the following rates: Three months, 6 per cent; Six months, 7 per cent; One year, 8 per cent. A share of the patronage of the public is solicited.

California Farmers Mutual Fire Insurance Association.

Office, 6 Leidesdorff St., - San Francisco.

Directors:

A. WOLF, A. W. THOMPSON, I. C. STEELE,
 1. G. GARDNER, J. O. MERRYFIELD, J. D. BLANCHARD,
 G. P. KELLOGG, Treas.

Finance Committee:

I. G. GARDNER, J. O. MERRYFIELD, A. W. THOMPSON

Trustees:

J. M. HAMILTON, Lake Col. C. STEELE, San Mateo Co
 J. O. MERRYFIELD, Solano Co. A. B. NALLEY, Sonoma Co
 G. W. COLBY, - Butte Co. O. S. ABBOTT, Santa Barbara Co
 H. B. JOLLEY, - Merced Co. A. W. THOMPSON, Sonoma Co
 A. WOLF, San Joaquin Co. E. W. STEELE, San Luis Obispo Co
 J. D. BLANCHARD, Pres't. W. H. BAXTER, Sec'y.

This association is organized for the purpose of affording the farmers of this State the means of safely insuring against loss by fire, at actual cost of insurance, without being connected with city risks. s22-tf

A GOOD BARGAIN.

\$500 will buy a good, pre-emption claim of 160 acres in Monterey County, with a good Dwelling House that cost more than that amount, situated one-half a mile from the Los Angeles Stage Road, and about the same distance from the line of the Southern Pacific Railroad. Apply to

MRS. ROWLANDSON,
 On the Premises, San Antonio, Cal.

AGRICULTURAL NOTES.

BUTTE.

POTATOES.—The Chico Enterprise of March 6th says that Abram Bidwell, Superintendent of the rancho Chico, will this year experiment in raising potatoes. He has prepared ten acres of ground, and will immediately commence planting. Hitherto the experiments made in this vicinity have been failures, but Mr. Bidwell thinks he can raise potatoes, that after full maturity, will keep all the year.

FROST.—The Butte Record states that the severe frost on the morning of the 3d inst. may have damaged the early fruit somewhat; but it is thought that the cloudy morning that succeeded may have neutralized to some extent the nipping air of the night.

CONTRA COSTA.

PROMISING.—The Antioch Ledger of March 6th says: Although the rain gauge at this place indicates that less than eleven inches have fallen thus far yet never has the grain looked better at this season of the year. In the immediate vicinity of Antioch, Messrs. Hutchison, McQuade, Fuller and Wills have perhaps the tallest wheat. All through the valley the summer-fallowed land gives promise of a full crop, while the late sown grain is fully three weeks earlier than usual. The weather is cool and cloudy with indication of rain. One inch of rain now would insure a large yield. In the eastern portion of the county the grain is even larger and more promising than on this side of the Diablo hills. In some instances we are told the farmer finds it necessary to cut the too rank growth to prevent lodging. The rainfall of Tuesday was considerably greater at Pacheco and Martinez than here.

FRESNO.

ANOTHER DITCH.—The Expositor says: The settlers in the vicinity of Liberty, we learn from Jonathan Rhodes, are engaged in bringing out a ditch of water for irrigating purposes from Cole slough. The ditch commences just below the bridge across the slough on the way to Kingston. It will be built and owned entirely by the settlers. Some twenty teams are now engaged in excavating the work. The work will be pushed ahead rapidly, and will probably be completed in time to furnish irrigating facilities for the farmers and settlers of that locality. It will afford a great convenience, and will be the means of increasing the prosperity of the settlement, and of inducing others to locate there. The lay of the country is such as to render the work entirely feasible.

NAPA.

CERTAIN CROPS.—The Calistoga Free Press of the 6th inst. says: Our section has during the past few days been visited by bountiful rains. Owing to the long dry and cold weather, the ground was getting quite dry, and farmers were beginning to complain of the drouth. The showers have put them in good humor again, and everything looks fair. The crops in this section may now be considered certain.

PLACER.

LARGE ACREAGE OF GRAIN.—The Placer Herald of the 6th inst. has the following: A flying trip, in the early part of the week, through the lower portion of the county, convinced us of these two significant facts: First, the acreage of grain in this county this spring far exceeds that of any previous year. Second, at no time in the history of the country, to our knowledge, did the growing crops look so promising at this time of the year. The summer-fallowed grain, particularly, is well set, of a good color, and unusually rank. As an idea how extensively farmers have sown, one told us that, without some serious back set, he would harvest 25,000 bushels of grain. The country, from the time you get out of the hills to Feather river, and from the American river to Bear river, is almost one continuous grain field. What little ground is not sown is now being summer-fallowed for another year. The farmers are in good spirits, and have a right to be.

THE BEAR RIVER DITCH.—The Placer Argus of March 6th says: The impression has been general in this vicinity that the farmers would fail to raise the required amount to buy an interest in the Bear river ditch, and that, consequently, it would pass into the hands of parties who would use all the water above Auburn. This impression is correct, so far as the failure of the farmers to buy, we believe; but we are informed that Mr. Reamer has made satisfactory arrangements, and will retain his control of the property.

SANTA CLARA.

TOBACCO CULTURE.—The San Jose Mercury, March 9th, says: J. W. Easton, Esq., brought to our office yesterday, a sample of Florida tobacco, grown last year on his farm near Santa Clara. The leaf is very fine, and by the expulsion of a little more of the volatile oils by proper curing would make a superb tobacco. Mr. Easton cultivated only about a quarter of an acre of tobacco last season as an experiment. He is well pleased with the result, and this year will increase the area to twenty acres. He will also experiment with two acres of cotton. There is no doubt that the rich, sandy loam of our river bottoms will produce excellent tobacco, and some of it can unquestionably be made profitable cotton lands.

SACRAMENTO.

THE REDWOOD.—The Sacramento valley Agriculturist, of the 6th inst., says that James Butler, of Florin, has a number of the big trees of Calaveras county growing, and is of the

opinion that they are the best forest tree suitable for the plains. He has the elm, ash, European larch, gum trees and many others, but gives the preference to the redwood for quick growth; it roots well, standing the heavy wind, while the others bend, break and require support; should be in every farm, as they are easily transplanted when young, by careful attention, and are found in our nurseries.

SAN JOAQUIN.

LOOKOUT FOR BIG CROPS.—A correspondent of the Stockton Independent, who has been riding through the valley with an eye to the wheat fields, admonishes the warehouse men in Stockton that they have got to make a great deal more room for the next wheat crop; the yield promises to be enormous. Speaking of a farm five miles from Linden, he says three crops of alfalfa can be raised in one season; that the soil produces seventy-five bushels of corn to the acre, and that beets grow to absolute perfection.

TUOLUMNE.

GOOD GROWTH.—The Sonoma Democrat, of the 6th inst., says: Last Saturday there was brought to our office a bunch of barley and wheat from the fields of John Finn, near Columbia, grown this season. The barley was three feet, and the wheat thirty-three inches long and represented to be fair samples of several acres. We are willing to put our grain-growing against the crop of snow and ice of the Eastern States during the winter.

CROP PROSPECT.—The Independent says: We learn that crops in the mountains are looking splendid—the grain being of thick and heavy growth, giving promise of great prosperity to the farmers.

YOLO.

BENEFIT OF THE RAIN.—The Yolo Mail says that the late rain will add hundreds of tons to the yield of wheat in Yolo county. It has fallen upon the trees and shrubbery so profusely planted by our citizens during the winter; it has fallen upon the ground lately sown with clover, and will sprout the new seed early; it has come at a time when it was beginning to be wanted, and when it was really needed. Thanks, then, for the beginning of spring showers, and for the promise it brings to the husbandmen.

LARGE WHEAT SALE.—W. J. Campbell has sold his last year's crop of Chili club wheat, amounting to 264 tons, for \$1.40 per cental, yielding him, even at that low figure, the nice sum of \$7,392.

YUBA.

IN OPERATION.—The Marysville Appeal, of the 5th inst., says: The Marysville Woolen Mill, which suffered considerable loss and damage by the flood of the 15th ultimo, is again in successful operation, a part of the machinery having been set in motion last week. It is anticipated that the remainder of the working machinery will be in operation next week; and the manufactory presents once more its business like and prosperous appearance.

PATENTS & INVENTIONS.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

[FROM OFFICIAL REPORTS FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.]

By Special Dispatch, Dated Washington, D. C., March 9, 1875.

FOR WEEK ENDING FEB. 23, 1875.

ABSORBING AMMONIA GAS IN WATER.—John M. Beath, S. F., Cal.

GRAIN SEPARATOR.—Josiah H. Locke, San Jose, Cal.

COMPOUND FOR THE PREVENTION OF SCALES IN STEAM BOILERS.—John H. Pitts, Oakland, Cal.

GAS METER.—Jacob Radston, S. F., Cal.

RAILWAY CAR AXLE.—Samuel L. Harrison, S. F., Cal.

FERTILIZING COMPOUND.—Chas. H. Hoffman, S. F., Cal.

SADDLE TREE.—Pemberton B. Horton, S. F., Cal.

WAGON BRAKE.—Robert J. Knapp, Half Moon Bay, Cal.

SCREW PROPELLER.—James H. Loftus, Oakland, Cal.

RE-ISSUE.

FOR TEAS.—Williams, Blanchard & Co., S. F., Cal.

—The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue. NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & CO., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with perfect security and in the shortest time possible.

GIVE YOUR FULL ADDRESS when you communicate on business to this office, especially in returning newspapers. The fact that your name is on our subscription list is of no assistance to us. Without your post office address we should have to look over thousands of names to find yours.

WOODWARD'S GARDENS embraces an Aquarium, Museum, Art Gallery, Conservatories, Tropical Houses, Menagerie, Seal Ponds and Skating Rink.

SUBSCRIBERS who by mistake get two copies of this paper, should notify us without delay.

An Important Sale of Live Stock.

The Glen Flora Herd of R. H. Parks, Waukegan, Ill., offered for sale at auction, April 7th, seems to be attracting marked attention East. Valuable medicinal springs have been developed on Mr. Parks' farm, and in view of giving them greater attention, as their importance seems to demand, he has concluded to make a clean sale of his rare specimen thoroughbreds. The Kentucky Stock Register, published in one of the most noted stock breeding sections of the Union and where Col. Parks' stock is best known, alludes to the sale as follows:

This will be undoubtedly the grandest opportunity ever offered breeders of the United States to secure animals so rich in Ketton, Wynyard and Kirklevington strains. The first 19 cows and heifers in the catalogue are descendants of the famous cow Princess, by Favorite, (252) the great-grand dam of the distinguished Belvedere, (1706) used by Thomas Bates on the Duchess family, and acknowledged to have been the sire of the best bull ever in England, which was Duke of Northumberland. The crosses intervening from Princess up are of the most extraordinary breeding, many of the sires being of the same blood, and what others there are is most generally of Earl Spencer's, Mason's and Bates' best strains, and appropriately called Gwynn's.

The next family that appears in the catalogue is representative of the straight Louans, by Otley, (1632), she being a daughter of 11th Duke of Geneva, (11,732), and out of 3d Duchess Louan, by 14th Duke of Thornedale, (8031); this is a gem, and we look for a long price, which she is certain to bring. Sixteen of the Louans of Glen Flora and Lou-Angeles descending from the same Cambria by Bertrand 2d (3144) as did Louan by Otley, will be an ornament to any sale. It is useless to go into any detail as to the merits of this noted tripe. There is no breeder in the land who is not familiar with the name of Harry Rice, one of the oldest veteran breeders of Kentucky. It was from his herd that this Louan of Glen Flora family descended. The Louans straight, from Cambria up are topped with Otley, (1632) Gold Dust, (584) Dinwiddie's Duke of Air, etc. While the Louans of Glen Flora and Lou-Angeles are topped from the same Cambria, by Locum, (11698) a son of Locomotive, (4242) Wiley, (32386) of the famous Misa Wiley family and Master Mason, etc. Five representatives of the Bright Eyes family, mainly of Pure Bates' Blood; one by Baron Bates 4th, and another by Beau of Oxford. Two by Apricot's Gloster, and one by Duke of Mason, (9899) will bring great competition from all quarters, as will also the Victorias.

We have often thought and looked upon this as being one of the best families in the Short-horn world, possessing as it does one of the longest pedigrees in existence, and being bred for so many generations in the hands of that great breeder, Charles Mason, whom it is said was the rival of the Collings, and by many in days gone by, to be then superior as a breeder. The 3d Duke of Oxford crosses, place them in the scale of being equal to any in the catalogue.

Mazurka is represented by a great grand daughter with the 3d Duke tops, and a very elegant thing she is, and being in calf to 4th Earl of Oxford, will be eagerly sought for.

The famous Peri family is represented by two individuals—Peri of Fairview, by Royal Duke of Oxford, (25021) and her daughter, by 13th Duke of Aldrie, (5535). The family is conceded to be one of the strongest Bates families in the country, containing as they do Duke and Oxford crosses on top of one of Booth's best families. This will, as far as we know, be the only chance to obtain a straight Peri at auction in America this season.

Six Blooms, called Oxford Blooms, the descendants of Bloom, by Sir Leonard, (10827), who was imported by Samuel Thorn, with strong Bates, and in one or two cases with all Duke and Oxford tops, will add an attractive feature to the sale. The descendants of imported Misa Butterfly by the 1200 guinea bull Master Butterfly (13319) by two females which are really superb things. Imported Cypress by Lord of Braith (1465) is represented by two or three in number; so is the celebrated Medora by Ambo, (1638). Imported Pangy from which the renowned Treble Gloster, (7341) descended is represented by several, topped out with Princess and Bates hulls. The pure Bates cow, Frantic, who was by the 4th Duke of York, (10167), is represented by several descendants. It will be remembered that the cow Filbert, from which the high-priced family of Lady Bates of the day descended, was of the same blood as Frantic; therefore, persons who desire some of the blood could not do better than attend upon this occasion. Fifteen or twenty more are included, representing several first-class families, make out the lot of females in the Glen Flora sale.

Judging from the catalogue we are induced to believe that few men on either side of the Atlantic can boast of having so many high-bred Short-horns as Col. Parks, and we know if it was not for another business which will require his time and money, he would not part with many animals we could select for five times the amount they will bring.

Fourth Earl of Oxford, a grand representative of the famous Oxford family, is used nearly entirely on the herd, thereby putting Bates on Bates, which is the fashion of the day.

We are not apprised of the number of bulls, but would judge from the females that a better lot of young high-bred bulls could not be found.

It would be well to remember the noted females that will be sold at Waukegan, Ill., April 7th next.

ARMES & DALLAM,

WHOLESALE DEALERS IN

WOOD AND WILLOW WARE

Baskets, Brushes and Twines,

Clothes Wringers,

Doty's Washing Machines,

AND

GENERAL HOUSE FURNISHING GOODS

And Manufacturers of

BROOMS, PAILS, TUBS, WASHBOARDS,

DASH,

CYLINDER,

THERMOMETER,

AND SQUARE BOX

CHURNS,

215 and 217 Sacramento St., San Francisco.

Davis & Sutton, Commission Merchants, For California Fruits; also for the sale of Butter, Eggs, Cheese, Hop, Green and Dried Fruits, etc., 75 Warren street, New York. Refer to Anthony Halsey, Cashier, Trade-men's National Bank, N. Y.; Ellwanger & Barry, Rochester, N. Y.; C. W. Reed, Sacramento, Cal.; A. Lusk & Co., Pacific Fruit Market, San Francisco, Cal.

For Bleaching or Washing In Cold or Warm Water.

FALKINBURGH & CO'S GRANGER SOAP

HAS NO EQUAL.

Don't fail to give it a trial, and be assured of a saving of money, time and labor. It speaks for itself. Warranted to accomplish more and do greater execution than any other soap. It is pressed, wrapped and perfumed.

ONCE USED, ALWAYS USED.

Sold by the principal Grocers throughout the country. Manufactured by

FALKINBURGH & CO.,

Oregon St., below Front, bet. Washington and Jackson, San Francisco, Cal. 4v9-10p

Anglo-Californian Bank.

LIMITED.

Successors to J. Seligman & Co.

London Office.....No. 3 Angel Court
San Francisco Office.....No. 412 California street.

Authorized Capital Stock, \$6,000,000,

Subscribed, \$3,000,000. Paid in, \$1,500,000.
Remainder subject to call.

DIRECTORS IN LONDON—Hon. Hugh McCulloch, Renben D. Sassoon, William F. Schollfield, Isaac Seligman, Julius Sington.

MANAGERS:

F. F. LOW and IGNATZ STEINHART,
SAN FRANCISCO.

The Bank is now prepared to open accounts, receive deposits, make collections, buy and sell Exchange, and issue Letters of Credit available throughout the world, and to do any money on proper securities. 2v9-ewbwp

LEA & PERRINS

—CELEBRATED—

Worcestershire Sauce.

Declared by Connoisseurs to be the only good SAUCE.

Caution Against Fraud.

The success of this most delicious and unrivalled Condiment having caused certain dealers to apply the name of "Worcestershire Sauce" to their own inferior compounds, the public is hereby informed that the only way to secure the genuine is to ask for LEA & PERRINS' SAUCE, and see that their names are upon the wrapper, labels, stopper and bottle.

Some of the foreign markets having been supplied with a spurious Worcestershire Sauce, upon the wrapper and labels of which the names of Lea & Perrins have been forged, L. & P. give notice that they have furnished their correspondents with power of attorney to take instant proceedings against manufacturers and vendors of such, or any other imitations by which their right may be infringed.

To be obtained of Messrs. CROSS & CO.,
San Francisco.

BELLA UNION HOTEL,

JOHN F. MILLER, Prop.,

SAN BERNARDINO, CAL.

This fine hotel is situated in one of the best parts of the city, and the proprietor will at all times use his best endeavors to promote the comfort of his guests.

THE CLEETON COOP COMPANY,

Of New Haven, Conn.,

Are now prepared to furnish societies and individuals with

Standard Exhibition Coops

AT REASONABLE RATES.

Correspondence Solicited.

ALEX. BUSWELL,

BOOK BINDER, PAPER RULER

AND BLANK BOOK MANUFACTURER.

521 Clay Street, S. F.

Blank Books Ruled, Printed and Bound to Order

COMPTON & BINFORD, REAL ESTATE BROKERS

Employment and Intelligence Office. Horse and buggy free to see property. Offices at Compton, and at corner of Court and Spring streets, Los Angeles, Cal.

LOCKE & MONTAGUE,

IMPORTERS OF

Stoves, Ranges,

Tin Plate, Sheet Iron, Iron Pipe,

House Furnishing Hardware,

Plain Japanned,

Planished and Stamped

TIN WARE,

112 and 114 Battery Street,

SAN FRANCISCO.

S. F. MARKET REPORT.

At Wholesale when not Otherwise Indicated.

Weekly Market Review.

DOMESTIC PRODUCE.

SAN FRANCISCO, March 10, 1875.

The Markets for Wheat and Wool offer decidedly better prospects at the present writing than they have done for some time. During the past week the Wheat Market has advanced 50 here, while, according to the *Mark Lane Enquirer*, of March 6th, it has advanced one shilling per quarter, or 5c per cental, in Liverpool. The same journal is also telegraphed as saying that there is a firmer feeling and better demand throughout the trade, and that speculation is wholly wanting. The Associate Press telegrams note no advance in the Liverpool Market, but as the market here has responded to the reported advance, we must conclude that it is true, and that again in this instance the Associated Press has proven itself unrelatable. The crop reports from all parts of the State are most reassuring, and it would now seem as if we would have a yield of 27,000,000 centals at least, or 21,000,000 for export. This would be large beyond all precedent, and in view of such a surplus it is well to estimate what may be the stock in the State at present writing. For this data are very much lacking, but the number of Wheat bags sold will, we think, furnish a reliable index. The bagasold equalled 12,000,000, representing 16,000,000 centals, and, making all allowances for the use of second-hand, etc., we think the estimate made by the *Sacramento Record*, of 21,000,000 centals, is not beyond the mark. Deducting 6,000,000 centals for seed, local consumption, etc., there remains 15,000,000 for export; of this there has been exported in Wheat and Flour the equivalent of 8,500,000, leaving 6,500,000 still to be disposed of. Assuming that shipments will continue to be made at about the same rate as heretofore for the next four months, they would amount to 4,200,000 centals, leaving, at the end of the harvest year, 2,300,000 still on hand. The improvement in the Wool Market East has been quite marked, and has given rise to the expectation of a moderately brisk demand for the remaining stock of Fall Wool in the State.

Barley—Receipts since our last: 5696 cts. Total for March to date, 8,616 cts. The market for Feed has, in consequence of small receipts, advanced during the week 10c@15c, and is now quotable: Bay, \$1.40@1.47; Coast, \$1.45. The market for Brewing has declined 2c, and is quotable at \$1.52@1.55 for Bay and \$1.40 for Coast. The New York market is quotable at \$1.25@1.30, a reduction of 5c. Sales of 1000 sbs Bay Feed at \$1.30, 500 do at \$1.45, 400 do choice Bay Brewing at \$1.52, and 600 do Bay Feed at \$1.35@1.40.

Beans—Receipts since our last: 1957 cts. Total since March 1st: 3235 cts. There has been no change in the market since our last. Nothing more than a quiet jobbing trade is in progress.

Broomcorn—Receipts since our last: 26 bbls. Quotable at 4c@7c for common and 7c@10c for good. A small sale at 4c was made the other day.

Buckwheat—Is nominal at \$3.25, with no transactions to record.

Beeswax—Receipts since our last: 8 cs. There are no sales to record. Quotable at 25c@27c.

Corn—Receipts since our last: 2935 cts. Total since March 1st, 3667 cts. In consequence of the large receipts the market has declined for White and advanced for Yellow. Quotable at \$1.57@1.60 for White and \$1.42@1.45 for Yellow. Sales of 125 sbs White at \$1.62, 200 do Yellow at \$1.40 and 200 do White at \$1.62@1.65.

Cotton—Receipts since our last: 12 bbls. Total since March 1st: 12 bbls. The market is quiet at 12c@14c.

Cornmeal—Table remains firm at 2c@3c, but Feed has advanced to \$3.00@3.50.

Feed—Receipts since our last, 453 sbs of Bran and 100 do Middlings. Total since March 1st, 958 sbs of Bran and 270 do Middlings. Bran weak at \$13@14, while Middlings and Oil Cake Meal remain unchanged.

Flour—Receipts since last, 14,218 qr sbs. Total since March 1st, 32,578 qr sbs. Total since Jan. 1st, 404,089 qr sbs. The market has again advanced to \$5.25 for Bakers' Extra. Local demand has been good during the week, but export demand has been light. Exports since our last 3364 bbls.

Fresh Meat—Pork dressed has shaded off and is quotable at 9c@9.5c. Pork on foot is quotable at 6c@7c. Lamb at 10c. Beef and Mutton unchanged.

Fruits—Receipts since our last: Apples 137 bxs. Oranges 879 bxs. Choice Apples are scarce, but common are in large supply. The Oregon in the market are not of very good quality. There are enough Peas for the demand, though the supply is small. There are plenty of Oranges in the market, but choice are scarce, and have advanced 2c@5. There are enough Lemons for the demand. Choice have advanced 5c. Tropical Fruits are scarce.

Game—Is scarce on account of the season being over. Nearly every kind has advanced. We quote Hares, \$2.50@3; Rabbits, \$1@1.50; Small Duck, \$1@1.50; Mallard and Canvas Back, \$3@4; Quail, Cal, \$1.50@1.75; Prairie Chickens would be worth \$3 if there were any to be had.

Wheat—Receipts since our last: 277,587 cts. Total since March 1st, 329,601 cts. Receipts since Jan. 1st have been as follows:

	Centals.
January.....	842,241
February.....	823,189
March, to date.....	329,601

Total.....1,995,031

Leather—We note a very quiet market, with no very large sale for exports or for home consumption; but the prospect ahead is very good, as the demand this year from boot and shoe factories promises to be larger than ever.

Metals—The market is much more active than it was a week or two since. We note large arrivals of Pig and Manufactured iron. Demands from the founders for the former are very active, while a good jobbing trade in the latter has started in. Tin Plate is very dull. The quantity imported the past year was out of all proportion to that imported any previous year, while the demand promises to be less.

General Merchandise—The changes in prices during the week have been confined to Coffee and Wine and Spirits. The former is half a cent lower and weak at that. California Spirits have advanced 2c a gallon, as also have Eastern. Brandy and Wine are stiff and promise to advance. Sugar is firm; Tea is weak; Hams are weak; Bacon and Lard firm; While Butter, owing to large receipts, is very low. Business has started up pretty lively during the week and promises well.

DOMESTIC PRODUCE.

WEDNESDAY M., March 10, 1875.

BEANS.					
Bayo.....	3	@	34		
Butter.....	3	@	4		
Pea.....	3	@	34		
Pink.....	1	@	17		
Sm'l wh. p. r. b.....	3	@	34		
BROOM CORN.					
Per b.....	10	@	10		
COTTON.					
Cal. 1874. p. b.....	12	@	14		
DAIRY PRODUCE.					
BUTTER.					
Cal. choice b.....	25	@	27		
Firkin.....	25	@	27		
Inferior.....	20	@	22		
Ubeese, Cal.....	14	@	17		
Eastern.....	15	@	20		
EGGS.					
Cal. fresh.....	24	@	25		
Ducks.....	22	@	25		
Eastern.....	22	@	25		
Oregon.....	22	@	25		
FEED.					
Bran, per ton.....	14	@	15		
Corn Meal.....	33	@	34		
Hay.....	9	@	10		
Middlings.....	20	@	22		
Oil cake meal.....	20	@	22		
Straw, p. bale.....	75	@	80		
FRESH MEAT.					
Beef 1st quality b.....	8	@	10		
Second do.....	6	@	8		
Third do.....	5	@	6		
Lamb.....	7	@	8		
Mutton.....	6	@	7		
Pork, undressed.....	6	@	7		
do, dressed.....	8	@	9		
Veal.....	8	@	9		
GRAIN, ETC.					
Barley, coast.....	125	@	130		
do brewing.....	140	@	150		
Buckwheat.....	3	@	4		
Corn, White.....	65	@	70		
do, Yellow.....	45	@	50		
Oats, choice.....	70	@	75		
do common.....	60	@	65		
Rye.....	120	@	125		
Wheat, coast.....	140	@	145		
do shipping.....	145	@	150		
do milling.....	150	@	155		
HOPS.					
California, 1874.....	32	@	40		
East'n. choice.....	50	@	55		
MISCELLANEOUS.					
Beeswax, per lb.....	25	@	27		
Honey in comb.....	18	@	20		
do strained.....	10	@	12		
Onions.....	1	@	15		
Pulu.....	8	@	10		
Almonds b'd sh'l.....	8	@	10		
do, soft.....	20	@	22		
Brazil do.....	14	@	15		
Cal. Walnuts.....	10	@	12		
C. Peanuts per lb.....	8	@	9		
Chile Walnuts.....	9	@	10		
Cocoanuts, 1000.....	50	@	55		
Filberts.....	17	@	18		
Peanuts.....	15	@	17		
POTATOES.					
Bodega.....	1	@	15		
Coffee.....	1	@	15		
H. M. Bay.....	1	@	15		
Humboldt.....	1	@	15		
Mission.....	1	@	15		
Pigeon 1 Pt.....	1	@	15		
ISAC. RIVER.....	1	@	15		
SALINAS.....	1	@	15		
St. Barbara.....	1	@	15		
Sweet, per cwt.....	34	@	35		
TOMATOES.....	1	@	15		
POULTRY & GAME.					
Broilers, small.....	4	@	5		
do large.....	6	@	7		
Doves, per dozen.....	10	@	12		
Ducks, tame, doz.....	9	@	10		
Geese, per pair.....	2	@	25		
Hare, per doz.....	2	@	20		
Live Turkeys, hens.....	10	@	12		
per b.....	18	@	20		
do gobblers.....	16	@	18		
do dressed.....	20	@	22		
Mallard Ducks.....	3	@	30		
do small.....	10	@	12		
Prairie Chickens.....	2	@	20		
Quail, per doz.....	1	@	15		
Rabbits.....	1	@	15		
do tame doz.....	10	@	12		
Roosters, young.....	10	@	12		
large.....	8	@	10		
Snake, Eng., doz.....	2	@	25		
Venison, per lb.....	1	@	15		
Wild Geese, doz.....	5	@	50		
do white.....	5	@	50		
FISH.					
Cal. Bacon, Light.....	15	@	16		
do Medium.....	14	@	15		
do Heavy.....	14	@	15		
Cal. Smoked Beef.....	9	@	10		
Eastern do.....	9	@	10		
do new hams.....	16	@	17		
Hams, Cal.....	14	@	15		
do Whittakers.....	17	@	18		
do Duffield, ch.....	16	@	17		
do Armour.....	16	@	17		
do Boyd's.....	16	@	17		
do Stewart's.....	16	@	17		
FEEDS.					
Alfalfa, Cal.....	9	@	10		
do California.....	15	@	16		
Canary.....	10	@	11		
Clover Red.....	17	@	19		
do White.....	65	@	75		
Cotton.....	6	@	10		
Flaxseed.....	4	@	10		
Henpe.....	8	@	10		
Italian Rye.....	30	@	40		
Ky. Blue Grass.....	50	@	60		
do 2d quality.....	40	@	50		
do 3d quality.....	30	@	40		
Millet.....	10	@	12		
Mustard, white.....	13	@	15		
do Brown.....	13	@	15		
Perennial do.....	20	@	30		
Rape.....	11	@	12		
Sweet Grass.....	75	@	100		
do Orchard do.....	30	@	35		
Red Top do.....	25	@	30		
Hungarian do.....	8	@	10		
Lawn do.....	50	@	60		
Mesquit do.....	15	@	20		
Timothy.....	8	@	10		
WOOL, ETC.					
FALL.					
Defective.....	9	@	11		
Fair grade.....	13	@	14		
Good to choice.....	17	@	18		
do extra.....	10	@	13		
Hides, dry.....	18	@	19		
do wet salted.....	8	@	9		
Tallow.....	6	@	7		
do Refined.....	9	@	10		

FRUITS AND VEGETABLES.

WEDNESDAY M., March 10, 1875.

FRUIT MARKET.				do St. Peter. ①				DRIED FRUIT.							
Tahiti, Or. M.....	1	@	15	Lorita, do.....	1	@	15	Apples, ② D.....	5	@	75				
Cal. do.....	15	@	20	06	Cal. do.....	15	@	20	06	06	Pears, ② D.....	8	@	10	
Limes, ② M.....	15	@	20	06	Limes, ② M.....	15	@	20	06	06	Peaches, ② D.....	9	@	10	
Cal. Lemons, ② M.....	15	@	20	06	06	Cal. Lemons, ② M.....	15	@	20	06	06	Apricots, ② D.....	12	@	15
Australian do.....	15	@	20	06	06	Australian do.....	15	@	20	06	06	Plums, ② D.....	15	@	16
do Sicily ② b'x.....	11	@	12	06	06	do Sicily ② b'x.....	11	@	12	06	06	Pitted, Or. ② D.....	15	@	16
Bananas, ② b'ncb 2.....	50	@	3	00	00	Bananas, ② b'ncb 2.....	50	@	3	00	00	do Extra, ② D.....	15	@	16
Cocoanuts, ② doz.....	100	@	100	00	00	Cocoanuts, ② doz.....	100	@	100	00	00	Raisins, ② D.....	12	@	15
Pineapples, ② doz.....	100	@	20	06	06	Pineapples, ② doz.....	100	@	20	06	06	Black Figs, ② D.....	5	@	6
Apples, ② b'x.....	75	@	100	06	06	Apples, ② b'x.....	75	@	100	06	06	White, ② D.....	8	@	9
Cherries.....	1	@	15	06	06	Cherries.....	1	@	15	06	06	Prunes, ② D.....	8	@	13
Blackberries.....	1	@	15	06	06	Blackberries.....	1	@	15	06	06	do German.....	11	@	12
do wild.....	1	@	15	06	06	do wild.....	1	@	15	06	06	Citron.....	32	@	35
Huckleberries.....	1	@	15	06	06	Huckleberries.....	1	@	15	06	06	Zante Currants.....	8	@	9
Strawberries ② D.....	1	@	15	06	06	Strawberries ② D.....	1	@	15	06	06	Dates.....	12	@	15
Gooseberries.....	1	@	15	06	06	Gooseberries.....	1	@	15	06	06	VEGETABLES.			
Raspberries.....	1	@	15	06	06	Raspberries.....	1	@	15	06	06	Asparagus.....	50	@	75
Currants.....	1	@	15	06	06	Currants.....	1	@	15	06	06	Beets.....	20	@	25
do black.....	1	@	15	06	06	do black.....	1	@	15	06	06	Cabbage, ② 100 lbs.....	50	@	75
Apricots.....	1	@	15	06	06	Apricots.....	1	@	15	06	06	Carrots, per ton.....	2	@	25
Plums.....	1	@	15	06	06	Plums.....	1	@	15	06	06	Cauliflower, doz.....	5	@	6
Peaches, ② b'x.....	1	@	15	06	06	Peaches, ② b'x.....	1	@	15	06	06	Celery, doz.....	40	@	50
do ext Mount.....	1	@	15	06	06	do ext Mount.....	1	@	15	06	06	Garlic, ② D.....	11	@	12
do ext Mount.....	1	@	15	06	06	do ext Mount.....	1	@	15	06	06	Green Peas.....	1	@	15
Pears, Bart. b'x.....	1	@	15	06	06	Pears, Bart. b'x.....	1	@	15	06	06	Green Corn ② doz.....	1	@	15
do Cooking.....	1	@	15	06	06	do Cooking.....	1	@	15	06	06	Sun'squash per ton.....	1	@	15
Crab Apples.....	1	@	15	06	06	Crab Apples.....	1	@	15	06	06	Marro'at Sash, ton.....	21	@	25
Nectarines.....	1	@	15	06	06	Nectarines.....	1	@	15	06	06	Okra, ② doz.....	15	@	20
Walrusmel' ② 100.....	1	@	15	06	06	Walrusmel' ② 100.....	1	@	15	06	06	String Beans, ② D.....	1	@	15
Musk'm'l's ② 100.....	1	@	15	06	06	Musk'm'l's ② 100.....	1	@	15	06	06	Lima Beans.....	1	@	15
Pomegran' ② 100.....	1	@	15	06	06	Pomegran' ② 100.....	1	@	15	06	06	Parasnis.....	15	@	20
Figs.....	1	@	15	06	06	Figs.....	1	@	15	06	06	Sh' Beans.....	1	@	15
Grapes, Blk Hg.....	1	@	15	06	06	Grapes, Blk Hg.....	1	@	15	06	06	Peppers, green, box.....	1	@	15
do Muscat.....	1	@	15	06	06	do Muscat.....	1	@	15	06	06	Okra, ② doz.....	15	@	20
do Malava'o.....	1	@	15	06	06	do Malava'o.....	1	@	15	06	06	Okra, ② doz.....	15	@	20
do Sweetw'r.....	1	@	15	06	06	do Sweetw'r.....	1	@	15	06	06	Okra, ② doz.....	15	@	20
do Mission.....	1	@	15	06	06	do Mission.....	1	@	15	06	06	Okra, ② doz.....	15	@	20
do Rose of Peru.....	1	@	15	06	06	do Rose of Peru.....	1	@	15	06	06	Okra, ② doz.....	15	@	20
do Tokay.....	1	@	15	06	06	do Tokay.....	1	@	15	06	06	Okra, ② doz.....	15	@	20
do Morocco.....	1	@	15	06	06	do Morocco.....	1	@	15	06	06	Okra, ② doz.....	15	@	20
												Okra, ② doz.....	15	@	20
												Okra, ② doz.....	15	@	20
												Okra, ② doz.....	15	@	20
												Okra, ② doz.....	15	@	20
												Okra, ② doz.....	15	@	20
												Okra, ② doz.....	15	@	20
												Okra, ② doz.....	15	@	20
												Okra, ② doz.....	15	@	20
												Okra, ② doz.....	15	@	20
												Okra, ② doz.....	15	@	20
												Okra, ② doz.....	15	@	20
												Okra, ② doz.....	15	@	20
												Okra, ② doz.....	15	@	20
												Okra, ② doz.....	15	@	20
												Okra, ② doz.....	15	@	20
												Okra, ② doz.....	15	@	20
												Okra, ② doz.....	15	@	20
												Okra, ② doz.....	15	@	20
												Okra, ② doz.....	15	@	20
												Okra, ② doz.....	15	@	20
												Okra, ② doz.....	15	@	20
												Okra, ② doz.....	15	@	20
												Okra, ② doz.....	15	@	20
												Okra, ② doz.....	15	@	20
												Okra, ② doz.....	15	@	20
												Okra, ② doz.....	15	@	20
												Okra, ② doz.....	15	@	20
												Okra, ② doz.....	15	@	20
												Okra, ② doz.....	15	@	20
												Okra, ② doz.....	15	@	20
												Okra, ② doz.....	15	@	20
												Okra, ② doz.....	15	@	20
												Okra, ② doz.....	15	@	20
												Okra, ② doz.....	15	@	20
												Okra, ② doz.....	15	@	20
												Okra, ② doz.....	15	@	20
												Okra, ② doz.....	15	@	20
												Okra, ② doz.....	15	@	20
												Okra, ② doz.....	15	@	20
												Okra, ② doz.....	15	@	20
												Okra, ② doz.....	15	@	20
												Okra, ② doz.....	15	@	20
												Okra,			

Agricultural Articles.

VINE AND FRUIT GROWERS,

TO RAISE LARGE CROPS

YOU MUST IRRIGATE.

To irrigate successfully, you must have the power that does not give out when the wind fails.

Laufkotter Bros. & Churchman's Horse-Power.



(PATENTED FEBRUARY 13TH, 1872.)
Never fails to supply more water than four or five Wind-mills, even supposing you had all the wind you want. It is also suitable for running light machinery, such as Berley Crackers, Corn Shellers, Fanning Mills, Grain Separators, or, for Sawing Wood. They are never failing, cannot get out of order, easily worked, substantial, and always give satisfaction wherever they have been used. One horse can easily work two 6-inch pumps, with a continuous flow of water. Force Pumps, from 3,000 to 10,000 gallons per hour. WINDMILLS of all kinds manufactured to order. Wells Bored, Windmills and Horse-Powers set in any part of the State, and repairing of all kinds done.
Manufactured and for sale by

LAUFKOTTER BROS.,

VT-2m-3m Cor. J and 10th Sts., Sacramento.

O. CREGO.

S. O. BOWLEY.

CREGO & BOWLEY,

Importers and Manufacturers

-OF-

CARRIAGES and WAGONS,

No. 9 Merchant's Exchange,

CALIFORNIA STREET.....SAN FRANCISCO

Keep constantly on hand top and open Buggies, top and open Rockaways, Jump-seat Buggies, Truck and Road Sulkeys, Skeleton Wagons, Basket Phaetons of the very latest styles and finest workmanship.

We would call particular attention to our fine stock of light Road and Trotting Wagons, made to order by the following celebrated makers:
Charles S. Coffrey, Camden, New Jersey;
Helfield & Jackson, Rahway, New Jersey;
Gregg & Bow, Wilmington, Delaware;
And the first-class makers, which we are prepared to sell on the most reasonable terms.

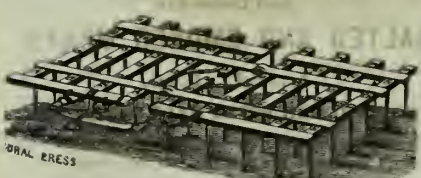
Also, a large assortment of single end double Harness, of the most celebrated makers:

O. Graham, New York; J. R. Hill, Concord; Pittkin & Thomas, Philadelphia.
Also, a full assortment of Dress and Light Blankets, Fur and Lep Robes, Whips, Halters, Surcingles, etc., at wholesale and retail.

CREGO & BOWLEY,

No. 9 Merchants' Exchange, California street, 24v5-3m San Francisco.

Donohue's Patent Harrow.



Patented October 13, 1874.

This Harrow, as may be seen in the cut, is constructed so that by its natural hanging and draft, without extra weights, the outer edges will keep down to their work, and preserve, as nearly as possible, a uniform level and penetration of teeth. To illustrate the engraving, if a line should be drawn through the two hinges it would cut the Harrow into two trapezoidal figures, thus causing the weight of the corners or acute angles to be nearly at right angles to the breaking line or joints of the two hinges, so that their superior leverage, owing to their greater distance from the hinges, will cause them to keep closely down to the ground when the harrow is working.

Orders received from all parts of the country, and a thoroughly durable implement furnished at reasonable rates, by the inventor, who is a practical worker.

F. DONOHUE,

Mayfield, Santa Clara County, Cal.

MATTESON & WILLIAMSON'S



Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over or side knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m

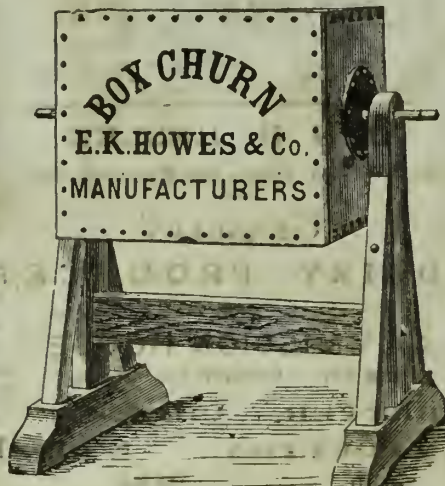
MATTESON & WILLIAMSON,
Stockton, Cal.

Allen's Planet Jr. Silver Medal

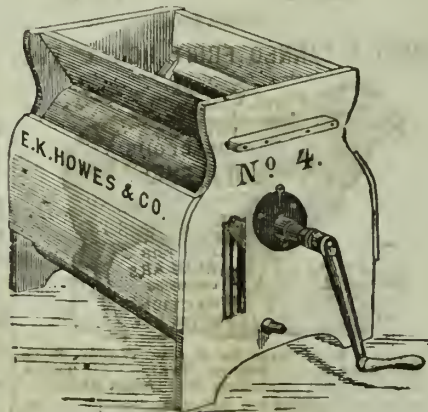
Hand Reels and Wagon Hoes, Tines new styles. They are like a charm, and hoe better, easier, and six times faster than the hand hoe. S. L. ALLEN & CO., Mfrs. 112 1/2 St. Phila., Pa. Circulars free. A Live Agent Wanted in every town.

E. K. HOWES & CO.,

NOS. 118, 120 and 122 FRONT ST., SAN FRANCISCO.



BOX CHURN.



THERMOMETER CHURN.

SOLE MANUFACTURERS ON THIS COAST OF

All Descriptions of Churns, Butter Workers & Moulds, Butter Tubs, (35, 50 & 60 Pounds), Butter Kegs—Plain and Gal Hoops—Wholesale & Retail.

Send for Price List and Illustrated Catalogue. Single Churns sent by Express, C. O. D., if desired. 9v5-6v6-3m

KIMBALL GAR, CARRIAGE

-AND-

AGRICULTURAL IMPLEMENT

MANUFACTURING CO.,

Cor. Bryant and Fourth Sts., San Francisco

The CALIFORNIA TUBULAR IRON AND WOOD FRAME HARROW—two, four and six-horse Iron Harrows, \$60, \$70 and \$75. Wood Frame Harrow, \$10 less on each size than the Iron.

The Harrow has an easy seat for the Driver. The middle section rests on three wheels with wings hinged on each side.

By use of Levers the Driver in his seat can raise or lower the Harrow, regulating at will the depth of the teeth in the soil, and in the same manner fold or raise the wings from the ground so as to drive from the road to the field, saving the use of a wagon.

Our CALIFORNIA SCRAPER is also made for the ease of the Driver, enabling one person to ride, manage the team and do the work.

Is adapted for leveling and preparing the surface of the soil for irrigation. And for making roads, removing dirt from ditches, cleaning barn yards, sheep corals, etc.

The IMPROVED EAGLE HAY PRESS—Best in use on this Coast. Cheap, Economical, Powerful, and easily repaired.

Will press bales weighing from 250 to 325 pounds, using less rope than any other press.

Three men with a good team of horses will bale from 10 to 15 tons per day.

Adapted for haling wool, hides, cotton, rags or moss.

Price, \$250. Weight of press, 2,500 pounds. Please send for circulars.

Farmers and Threshers

WISHING TO HAVE

Straw Burning Engines

For next season must engage them soon, as most of these now building are already sold. Threshing Engines for Repairs should be sent in now. A number of Second-hand Engines—taken in exchange for "Straw Burners"—for sale cheap. For particulars and prices, address:

H. W. RICE,

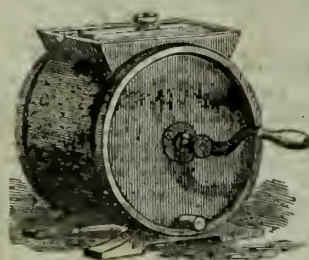
23v8-3m Heywood, Alameda County.

THE PUMPS SLUTHOUR PUMPS

Are sold 50 per cent. under any other in the market, considering the amount of water obtained for the power applied. They have now been fully tested for IRRIGATION, and entire satisfaction is guaranteed. Call and see them, or send for Circulars.

J. M. KEELER & CO., Agents,
306 California Street, San Francisco.

Geo. W. Chapin, Real Estate Agent, 434 Montgomery St., San Francisco, have and sell Ranches in all parts of the State. City Real Estate exchanged for Country Property. MONEY LOANED. Post Office Box 1120



CYLINDER CHURN AND DASHER



BLANCHARD CHURN.

Miscellaneous Notices.

J. M. NEVILLE.

G. H. BRYANT

NEVILLE & CO'S FACTORY

113 Clay and 114 Commercial Sts.,

SAN FRANCISCO.

BAGS of All Kinds,
TENTS, All Sizes and Descriptions.
HOSE for Hydraulic Use.
CANVAS, All Numbers.
TWINE for Sewing, Etc.



THE CELEBRATED

H. H. H.

HORSE MEDICINE

IS STILL AHEAD OF ALL OTHERS.

The Wholesale Druggists of San Francisco, give evidence of its appreciation throughout the State, by and rapidly increasing orders. We pledge it a cure for SPAVINS, WIND GALLS,

SWEENEY, SCRATCHES,

LAME AND STIFF JOINTS,

CALLONS, LUMPS,

AND ALL BLEMISHES,

SPRAINS OR BRUISES.

It is a household blessing and no family should be without a bottle in the house. For sale everywhere.

WILLIAMS & MOORE, Prop's.,

25v8-6m

Stockton, Cal.

POISON! POISON!
WAKELEE'S PATENTED
Granulated Squirrel Exterminator.

A NEW AND MOST DESTRUCTIVE POISON FOR THE WORST PEST OF CALIFORNIA.

For years the farmers of the Pacific Coast have been spending money in experimenting to find a safe, cheap and efficient way of ridding their grain fields of their worst enemy, THE SQUIRREL, which destroy Millions of Dollars' worth of grain every year; and unless a strong and combined effort is made to kill them off, they will become more numerous every year.

Wakelee's Granulated Squirrel Exterminator

Is just the thing the farmers of California have been looking for. It is SURE DEATH. One or two grains of it will kill a Squirrel so quick that if it is five feet from his hole it dies before it gets there. The Poison is put up dry and in granular form, and easily handled; in one pound tin at \$1 per pound. It goes a great way, as 10 to 15 grains of it are sufficient to place at each hole. Also successfully used for killing Gophers and Rats. It has been thoroughly tested in different parts of the country, and gave universal satisfaction. It is kept and sold by druggists and dealers generally through the country. The following are some of my testimonials, viz:

SANTA CLARA, April 20th, 1874.

H. P. WAKELEE, Esq.:—Your Squirrel Exterminator was used according to your directions, on my Quito Farm, with excellent success, and is my estimation is just the thing the farmers want to kill their Squirrels.

J. R. ARGUELLO.

SAN LEANDRO, Cal., April 3d, 1874.

H. P. WAKELEE, Esq.:—Dear Sir: I have given your Squirrel Exterminator a fair trial and find it to be an economical and very destructive preparation, and I can safely recommend it to our farmers. Yours,

J. M. ESTUDILLO.

DOUGHERTY STATION, Alameda Co., Cal.
Mr. H. P. WAKELEE, San Francisco: I have used your Squirrel Poison and found it to be just what you claim for it. It is sure death. Yours,

O. M. DOUGHERTY.

H. P. WAKELEE, Druggist,

Cor. Montgomery and Bush streets, S. F.

The National Gold Medal

WAS AWARDED TO

BRADLEY & RULOFSON

FOR THE

BEST PHOTOGRAPHS

IN THE

UNITED STATES,

AND THE

VIENNA MEDAL

FOR THE BEST IN THE WORLD..

No. 429 Montgomery Street,

6v6v3p

San Francisco, Cal..

EMPIRE PARLOR MATCHES.

We have imported the requisite Machinery and Chemicals to add to our previous assortment of Matches the celebrated Parlor Match, deservedly popular among families and smokers, on account of brilliant burning qualities, and absence of smell or odor. Manufactured from the best angular pine, a wood superior to any other, and found only upon the Pacific Coast. They are full count, and without objection of any kind. Packed in boxes of most desirable style. Brimstone and safety Matches of superior quality manufactured, and are guaranteed to give entire satisfaction. Encourage Home Industry, and get superior goods at less cost than the imported article. Ask your grocer for the EMPIRE PARLOR MATCHES; and be sure you get no others. For Sale by all Grocers.

B. BENDEL & CO.,

MANUFACTURERS, 318 FRONT STREET.

FACTORY—Corner Eleventh and Harrison streets, S. F. 14v5-6v6

J. & P. N. HANNA,

IMPORTERS AND DEALERS IN

Grain, Wool, Ore and Bean Bags,
Flax, Cotton and Linen
Twines.

COTTON, DUCK, RAVENS AND DRILLS—33, 36, 40, 42 and 45-Inch Wide Duck; 8, 10, 12 and 15-Ounce Duck.

Ore Bags, Tents and Hose
MADE TO ORDER.

Nos. 308 and 310 DAVIS ST.,

San Francisco, Cal.

E. K. CUMMINGS,
1858.E. H. BALSTON,
1875.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission
House,

ESTABLISHED 1868.

No. 424 Battery street, southeast corner of Washing-
ton, San Francisco.

Our business being exclusively Commission, we have
no interests that will conflict with those of the producer..
4v23-1v

Hooper's South End Grain Warehouse..

Japan and Townsend Streets.

SAN FRANCISCO, July, 1874.
I beg to inform you I have leased the above first-class
Fire-Proof Brick Warehouse, now being erected by Geo.
F. Hooper, Esq., and will be ready to receive storage on
the 1st of August. This warehouse offers superior indoe-
minate to parties desiring to store grain and flour, as it is
situated on the Water Front, and on the line of the O. P.
R. R. and S. P. R. R. It is well ventilated, rat proof, and
combines all the modern advantages and improvements
Yours respectfully, JOHN JENNINGS.
Advances and insurance effected at the lowest rates.
Storage taken at lowest current rates. 4v8-1v

\$5 to \$20 Per Day at home. Terms free. Ad-
dress G. BRINSON & Co., Portland, Me

OWENS, LANE & DYER MACHINE COMPANY.

Manufacturers of the following Specialties:

**Portable & Stationary Engines,
CIRCULAR SAW MILLS,**

OF ANY CAPACITY REQUIRED.

Also, the Celebrated

STEAM THRESHER, "California Chief"

Have recently added to their lists, the

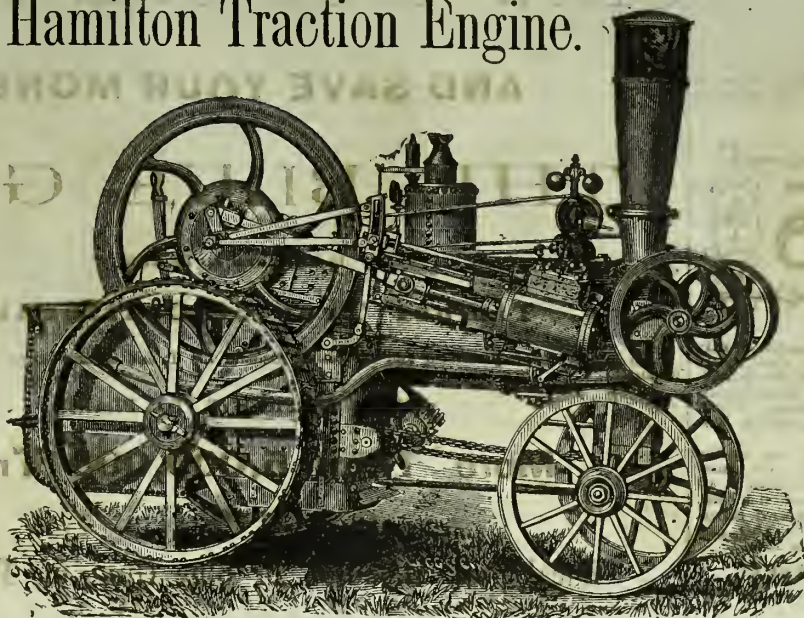
HAMILTON TRACTION ENGINE.

WORKS IN

MACHINERY DEPOT.

HAMILTON, O. ST. LOUIS, MO.

Hamilton Traction Engine.



OUR TRACTION ENGINE

Is no mere novelty or uncertain experiment, but is well designed, well constructed and thoroughly practical in all its operations. It is strong and substantial in all its parts, reliable and durable in action, and capable of any service for which the best of such Engines are adapted.

In its design and construction we have taken as models the best of the English engines of this class, and with modifications and improvements suggested by an experience in the construction and operation of Portable Engines, and a knowledge of the uses that will be required of them, and the conditions to which they will be subjected in this country. We thereby advertise that we are prepared to furnish a Road and Field Locomotive better adapted for such service and in many respects superior to any thing yet produced in that line.

For full description, prices, &c. of these or any other machinery in our line we invite parties wishing to purchase such machinery, to call and see or address us at our place of business in

HAMILTON, O., or ST. LOUIS, MO.,
OWENS, LANE & DYER, MACHINE CO

DURYEA'S SATIN GLOSS STARCH AND DURYEA'S IMPROVED CORN STARCH

Are the Best in the World.

USE IT ONCE AND YOU WILL USE NO OTHER.

For Sale by All Grocers.

FAC-SIMILES OF PRIZE MEDALS AWARDED THE



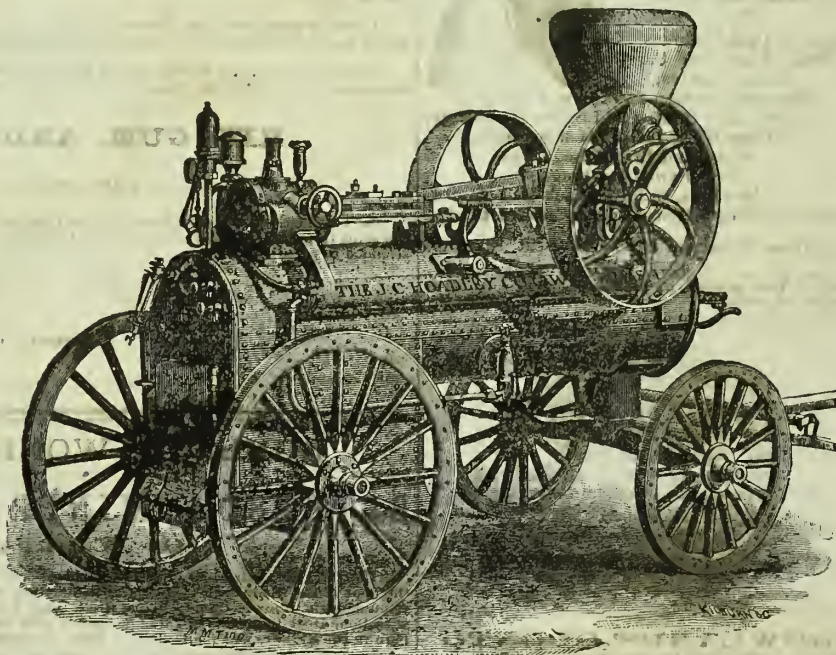
MESSRS. DURYEA
OVER ALL FOR THE COMPETITORS

"PERFECTION OF QUALITY OF THEIR GOODS"

The Messrs. Duryea have succeeded in refining Starch to entire purity and developing its entire strength and clearness, an improvement that will be readily perceived in the great strength of the Starch, the superior luster that it gives, and in its reliable uniformity. Much of the so-called starch contains from one-fourth to one-third foreign matter, readily perceived by sourness, mustiness, or a golden yellow tinge, peculiar to inferior starches, a color not desirable for one's linen, but inseparable from the use of common starch. They pledge themselves to the public to give a uniformly superior article, from one-fourth to one-third stronger than any other starch in the world, and at the common market rates.

**EGERTON, ALLEN & CO., Sole Agents for the Pacific Coast,
San Francisco, California.**

The Hoadley Regulating Cut-off THRESHING ENGINES.



The above cut represents the Hoadley New Style Threshing Engine, 5-horse power, with Patent Cut-off Governor. We also have the same style and size, with HOADLEY'S NEW PATENT STRAW-BURNING FIRE BOX. This new Engine has been thoroughly tested, and we are prepared to warrant it to give satisfaction. OUR GUARANTEE GOES WITH EVERY ENGINE INTO THE FIELD. This new engine is fitted out complete, with High Seat, Foot-Board for Driver, California Roller Brake (not shown in engraving), Iron Hub, Patent Wheels, Forged Bent Axle, and all Mountings in Perfect Order.

THE Hoadley Straw-Burning Threshing Engine

Is no heavier than wood-burning engines of same power, and is unquestionably the Best Threshing Engine in the world. It is Lighter, Better Made, Safer, and will do More Work than any other engine of same size and price ever built. THIS FACT IS INDISPUTABLE.

Farmers and Threshers desiring to buy Straw-Burners for coming season, should secure their Engines Early, as the number is not large, and many are already engaged. All Engines will be tested in presence of customers, when required. Send for Circular and Prices. Address,

TREADWELL & CO., Sole Agents, San Francisco.

Averill Chemical Paint, MANUFACTURED BY THE Cal. Chemical Paint Co.

PURE WHITE, AND ANY SHADE OR COLOR.

This Paint is prepared in liquid form, READY FOR APPLICATION—requiring no thinner or dryer, and will not spoil by standing any length of time. It is Cheaper, more durable, more Elastic, and produces a more Beautiful Finish than the best of any other Paint. It will not Fade, Chalk, Crack, or Peel off, and will last twice as long as any other Paint.

In ordering White, state whether for Outside or Inside use, as we manufacture an Inside White (either Flat or Gloss) for inside use, which will not turn yellow, and produces a finish equal to the finest China Gloss. Put up in 1/4, 1/2, 1, 2 and 5 gallon packages, and in Barrels. Sold by the Gallon. For further information send for Sample Card and Price List, or apply to the manufactory and office,

Cor. 4th and Townsend streets, S. F.
TYLER BEACH. M. C. JEWELL,
President. Secretary.

Orders Wanted at the National Employment-office, 608 Market street, room 2; office crowded daily with good men and women, seeking employment; particular attention paid to country orders. 26v8-3m
A. BRANDT & CO., Prop's

Union Box Factory, GEO. W. SWAN & CO., 115 and 116 Spear St., bet. Mission & Howard SAN FRANCISCO.

Apple, Pear, Plum, Peach, Cherry, Grape, Orange, Lime and Wine Cases.
Tomato, Potato, Fig and Raisin Boxes.
Strawberry, Raspberry and Blackberry Chests and Drawers, and Baskets for all kinds of Berries.
Peach and Pickling Baskets, Butter Chests and Boxes, Cheese Boxes, Square and Round Egg Carriers.
Drums for Figs, Cherries, Raisins, and for other Dried Fruits.
Free Packages—Boxes not to be returned—a good article, costing less than Sawed Boxes.
Lard Caddies, Coffee and Fruit Caddies.
Turkey and Chicken Coops, Bee-Hives, Etc.
Packing Boxes for Dry-Goods, Cigars, Candies, Canned Fruits, Honey, Macaroni, Crackers, Sugar, Soap, Boots, Etc.
In fact, every style of Boxes manufactured in the Union, and turned out in the Best Style at Favorable Prices. Orders from the country well attended to

Brittan, Holbrook & Co., Importers of
Stoves and Metals, Tinners' Goods, Tools and Machines, 111 and 113 California, 17 and 19 Davis streets, San Francisco, and 178 J street, Sacramento

BOWEN'S PREMIUM YEAST POWDER. Bowen's Premium Yeast Powder. Bowen's Premium Yeast Powder. Bowen's Premium Yeast Powder.

Best in the World! Every Can Guaranteed!!

For Sale in Every Village, Town and City on the Pacific Coast.

Ask Your Grocer for It.

Manuf'd by BOWEN BROS., 432 Pine St., S. F., and 11th & 12th Sts., Oakland.

RELIABLE. THE UNEQUALED. ONE PRICE DRY-GOODS HOUSE, 42, 44, and 46, Third Street, San Francisco.

THE GOODS ARE ALL MARKED, IN PLAIN FIGURES.

PEIXOTTO & SILVERMAN.

1874. GUIDE AND CATALOGUE 1875.
FREE.

To persons contemplating purchasing I will send my ILLUSTRATED, DESCRIPTIVE CATALOGUE and GUIDE to the VEGETABLE and FLOWER GARDEN WITHOUT CHARGE. It contains the most extensive and valuable list of



Flowering Bulbs, Roots and Plants, Semi-Tropical Trees, Ornamental Shrubs, Fruit and Shade Trees, etc., ever offered in this market. It tells how to successfully grow the Australian Blue Gum, the Monterey Cypress, Pine, etc., and the proper method of Cultivating Tobacco on this Coast.

My stock of seeds is in part my own raising and in part direct importations from the best European and Eastern growers, and is unsurpassed in all respects by that offered by any other establishment. 100,000 Australian Blue Gums and Monterey Cypress in boxes at from \$30 to \$50 per 1,000, raised at my own Nursery at San Rafael.

R. J. TRUMBULL,

Grower, Importer, Wholesale and Retail Dealer in Seeds, Shrubs, Trees, etc.

2078-6m-16p

427 Sansome street, S. F.

M. FALLON,

Cor. Seventh & Oak sts.,

OAKLAND, CAL.

Light & Dark Brahmas, Buff, White and Partridge Cochins, Spangled, Golden and Silver Polish, Spangled, Golden and Silver Hamburgs, Pure White-faced Black Spanish, White and Brown Leghorns, Silver Grey Dorkings, Houdans, Silkies, Black-Red Games, Bronze Turkeys, Rouen and Aylesbury Ducks.

All from Premium Stock of Best Strains.

Fowls of above varieties for sale; also, Chickens in their season. Eggs packed with care and sent in rotation as orders are received.

**ROWLANDS' ODONTO**

Whitens and preserves the teeth, prevents and arrests their decay, strengthens the gums, and gives a pleasing fragrance to the breath. The success of the last seventy-five years has proved its superiority over all other preparations for the teeth. Sold everywhere by all druggists, chemists, and patent medicine dealers. Ask for Rowlands' Odonto, of 20, Hatton Garden, London, and avoid cheap imitations.

SEEDS.**PLANTS.**

OF EVERY VARIETY, Fresh and reliable, such as experience and care only can select.

GRASS AND CLOVER SEEDS, KENTUCKY BLUE GRASS, HUNGARIAN, ORCHARD, ITALIAN RYE, RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL, CHOICE CALIFORNIA ALFALFA, WHITE CLOVER, RED CLOVER, Etc.

Also, RAMIE, JUTE AND TOBACCO SEEDS; together with a fine and complete collection of TREE SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGANTEA, PINUS INSIGNIS, Etc.

For Sale, wholesale or retail, by

B. F. WELLINGTON,(Successor to E. E. Moore).
425 Washington St., San Francisco. 22v7-1y**HEALD'S Business College.**

No. 24 Post Street, San Francisco.

The largest and best Business College in America. Its teachers are competent and experienced. Its pupils are from the best class of young men in the State. It is under the very best discipline. Its scholarships are good in the THIRTY-SIX Bryant & Stratton Colleges. It employs four of the best penmen in the State. It has the largest rooms, the largest attendance, and the most complete system of business training of any commercial school in the country.

For information, call at the office, 24 Post Street, or address, for circulars,

E. P. HEALD,

President Business College, San Francisco

FARMERS' UNION!

SUCCESSOR TO A. PFISTER & CO.,

Cor. Second and Santa Clara Sts., San Jose.

CAPITAL, \$100,000.
WM. ERKSON, PRESIDENT
H. E. HILLS, MANAGER
Directors:—Wm. Erkson, L. P. Chipman, Horace Little, J. P. Duley, David Campbell, James Singleton, Thomas E. Snel, C. T. Settle, E. A. Briley.
Will do a General Mercantile Business, also receive Deposits, on which such interest will be allowed as may be agreed upon, and make Loans upon approved security.

GROW YOUR OWN TREES**AND SAVE YOUR MONEY.****THE BLUE GUM**

IS DESTINED TO BE THE

Timber Tree of California.

To supply the unparalleled and increasing demand for Trees of the [most rapid growth, I have imported

SEED SUFFICIENT TO PLANT

More Than 5,000,000 Trees

OF THE

Eucalyptus Globulus or Blue Gum of Tasmania,

AND WHICH WE OFFER AT THE

LOW PRICE OF \$1.25 PER OUNCE, MAILED FREE ANYWHERE.

The Seed is Warranted fresh and free from adulteration or any foreign mixture.

PRINTED INSTRUCTIONS AS TO THE PROPER METHOD OF CULTURE WILL ACCOMPANY EACH ORDER.

I want it understood that this seed is now no longer a scarce article. An ounce contains about 3,500 seeds, and if heeded according to my instructions will produce 2,000 trees.

There is more money in tree culture than in growing wheat. Land owners who improve their opportunities to-day, will eight or ten years hence enjoy the riches of their foresight.

RED GUM, AND IRON BARK GUM,

And other varieties at proportionately low rates.

I will contract to grow from 1,000 to 1,000,000 Blue Gums from six inches to six feet high, and deliver the same from the first day of October next to March first, 1876. Terms on application. Orders large or small attended to promptly.

R. J. TRUMBULL,

Grower, Importer and Dealer in Seeds Trees, etc.

427 SANSOME STREET, S. F.

DUNBAR'S WONDERFUL DISCOVERY.**BETHESDA MINERAL SPRING WATER**
Of Waukesha, Wisconsin.

We claim Bethesda to be a specific in all cases of Diabetes, Inflammation of the Kidneys, Inflammation of the Neck of the Bladder and Urethra, Inflammation of the Bladder, Dropsy, Gouty Swellings, Stoppage of Urine, Albuminuria, Ropy or Cloudy Urine, Brick Dust Deposit, Thick, Morbid, Bilious and Dark Appearing Urine, with Bone Dust Deposits; Burning Sensation with Sharp Pains when voiding Urine; Hemorrhage of the Kidneys, Pain in the Kidneys and Loins, Torpid Liver, Indigestion, Calculus, and Female Weakness.

There is no remedial agent known to man that can cure the foregoing diseases as effectually as Bethesda Water. This fact has been demonstrated wherever the water has been used according to directions, which can be had at the General Agents' by application to them. The water is sweet and pleasant to the taste. It can be drunk at all hours. Why should any one suffer while this Water is so easily obtained?

DUNBAR, HENDRY & LAVERY, Sole Agents for Pacific Coast.

fb27-cow-bp-3m

107 STOCKTON ST., SAN FRANCISCO.

IRON PIPE,**PIPE FITTINGS**

—AND—

BRASS GOODS,**AT BOTTOM PRICES.****JAMES L. BARKER,**

406 and 408 MARKET STREET.

METAL**Commission Merchant.**

mr13-cow-bp

Bronze Turkeys

12 Gobblers from 8 to 20 months old, 22 to 40 lbs each, for sale now. Hens 14 to 18 lbs.

**Emden Geese**

40 to 50 pounds per pair at maturity. BLACK CAYUGA DUCKS.

Games, Brahmas, Leghorns, Houdans, Bantams, etc.

Eggs, fresh, pure, true to name; well packed so as to hatch after arrival.

For Illustrated Circular and Price-List, address

M. EYRE, Napa, Cal.**FERRETS.****RABBITS.****PIGEONS.**

Please state where you saw this advertisement.

The Popular Farm Journal.

—THE—

AMERICAN PATRON

Is acknowledged by all who have examined it to be the very best paper published in the interest of the Order of

Patrons of Husbandry,

And furnished at the low rate of

One Dollar and Twenty-five Cents Per Year,

With liberal reductions to clubs and Granges, and handsome Premiums to canvassers. Send for free sample copy and be convinced.
THE AMERICAN PATRON has an ably-conducted Editorial Department, dealing each week strong blows at monopoly in every form, clearly elucidating the great principles which underlie the agitation known as the

Farmers' Movement.

THE AMERICAN PATRON is a large eight-page paper, containing forty broad columns of elegant reading matter. The Agricultural Department is made up of original and select matter of general interest to the farmer.
This paper is not the rehash of a daily paper, but all the matter is carefully selected and prepared for this edition alone.

Important Inducements to Granges. Specimen copies sent free on application. Address all communications to

J. K. BARND, Publisher.

Findley, Ohio.

ENRIGHT'S**Portable Strawburning Engines**

Burns either Straw, Wood or Coal, Manufactured and sold by
JOSEPH ENRIGHT.
San Jose

NEW CROP OF**BLUE GUM SEED.****GRASS AND CLOVER SEEDS.****FLOWER AND VEGETABLE SEEDS.****TREE AND FRUIT SEEDS.**

OF EVERY DESIRABLE VARIETY AND OF THE BEST QUALITY; OFFERED AT WHOLE-SALE OR RETAIL, BY

GEO. F. SILVESTER, SEEDSMAN,

No. 317 Washington Street,

24v8-1f

SAN FRANCISCO

Improve Your Poultry,

IT COSTS NO MORE TO KEEP GOOD FOWLS THAN POOR ONES!

OAKLAND POULTRY YARDS,

Cor. 16th and Castro streets, Oakland, Cal.

Eggs for Hatching

GUARANTEED FRESH,

True to Name,

And to carry safely to any part of the country.



BRAHMAS, LIGHT AND DARK LEGHORNS, WHITE AND BROWN HOUDANS, COCHINS, BUFF, BLACK AND PARTRIDGE POLISH, GOLD AND SILVER, HAMBURG GOLD-EN, SILVER AND BLACK GAMES, AYLESBURY AND ROUEN DUCKS, DORKINGS AND BANTAMS.

BRONZE TURKEYS, the Largest in America.

Send for Circular to

GEO. B. BAYLEY,

Box 659, San Francisco.

16p

THE TURBINE.

Simplest! Cheapest!



Most Durable!

THE INVENTOR OF THE

DEXTER WINDMILL

Has made new and useful improvements in Windmills, and now feels confident of having the SIMPLEST, CHEAPEST, MOST DURABLE, and

ONLY PERMANENT WINDMILL IN THE WORLD.

SIMPLEST, because it is less complicated; CHEAPEST, because it never needs repair, standing on a firm foundation; MOST DURABLE, because it is all under cover, and has less rigging to get out of order; ONLY PERMANENT, because the only Windmill in the world that has never been injured by storms. Hundreds of people, who have thought the Dexter perfect, will be glad to observe the SUPERIORITY OF THE TURBINE over all predecessors. Although much improved, the price of mills remain the same as formerly. Persons who study their own interest will investigate the TURBINE before purchasing any other.

Territory for sale outside of California, at reasonable rates and easy terms.

Mills Built to Order of the Best Material, and at the Shortest Notice.

For further information regarding Mills or Territory, address,

A. H. SOUTHWICK,

P. O. Box 1385, San Francisco; or

P. O. Box 25, Oakland, Cal.

mr13-lam-bp

FOR SALE.

10,000 Acres—Grazing Land—San Luis Obispo County. Title, U. S. Patent. Apply to
MOODY & FARISH,
210 Davis street.



Volume IX.]

SAN FRANCISCO, SATURDAY, MARCH 20, 1875.

[Number 12.]

Answers to Enquiries About Homes.

The letter of inquiry which we now take in hand is from Nebraska city, and is rather remarkable for the diversified information it calls for. The questions to which answers are requested, are as follows:

"What is land worth about Stockton and in the San Joaquin valley, with or without improvements?—what are good thorough-bred Jerseys and Short horns worth?—what is the price of good pigs, two or three months old?—what is the price of trotting-horses?—what is land worth at San Diego and Los Angeles?—what is the difference between gold and greenbacks? As there are several families wishing to go there, we would like all the information you can give."

Lands can be bought around Stockton and in San Joaquin county, with improvements for \$20, to \$50 per acre, according to location and extent of improvements. They are near railroads with facilities for shipping by water also. We have as good stock of thorough-bred Jerseys and Short-horns, as you can find in America; but it would be impracticable for us to specify values, and to set prices on our neighbors' herds, further than the general statement that there is but slight variation in the same classes of stock between this and other states. In conversing recently with a leading breeder of Jerseys, we were told that he is selling a good many members of his herd, and that he aims to furnish them at such prices as will prevent the necessity of importation. The same may be said in regard to pigs. You can buy common stock, two or three months old, at two or three dollars each. This is lower than the price of any pigs in most of the Eastern states, but good stock here brings good prices.

It is a difficult matter to give the price of "trotting horses," especially where no rate of speed is specified; but in relation to horses generally, we would say that they probably vary more in quality and prices, than in any other state in the Union. San Francisco, like the other large cities, absorbs a large portion of the good horses in the country. The dray horses of this city are unsurpassable. They are the heaviest horses we have, some of them weighing 2,400 lbs. They are scarcely ever required to go faster than a walk, but in this gait they are good for any amount of work, and very handy. A good horse of this class may be bought for \$300. Our express horses are next in weight and value. The massiveness of the truck horse is not needed in this class, still a good deal of strength and great endurance are needed, as there is a good deal of up and down hill work for them. They must also be well broken, especially to stand. An average horse of this class is worth \$200. With fancy roadsters and coach horses it is as with trotters; prices are governed more by the humor and means of the purchaser than by the value of the animals. Besides the above classes we have a wide range of animals, ranging in usefulness and value from the horse of all work, worth \$150, to the diminutive mustang that can be bought for \$30.

The agricultural and mining districts are mostly supplied with the last named class of horses; namely from \$150, downwards. The country is full of the descendants of the old Mexican stock of horses. Their worthlessness, however, is more the fault of the owners than of the animals. A very large portion of them have never been broken to anything but the saddle, but for this purpose they excel the average Eastern horse, in fact, a good saddle-horse is as great a rarity in the Middle States, as is a good work-horse in California. The predominance in this country of the mustang blood in our horses is, in the main, to be deplored; still by this abundance of inferior horse, the poor farmer or emigrant with limited means, is enabled to overcome one of the greatest obstacles in the way of the beginner; namely a pair of working horses. For a hundred dollars a man can buy in most parts of California, a pair of horses with which he can at least begin farming.

In regard to land in San Joaquin county, we are informed that good wheat land can be

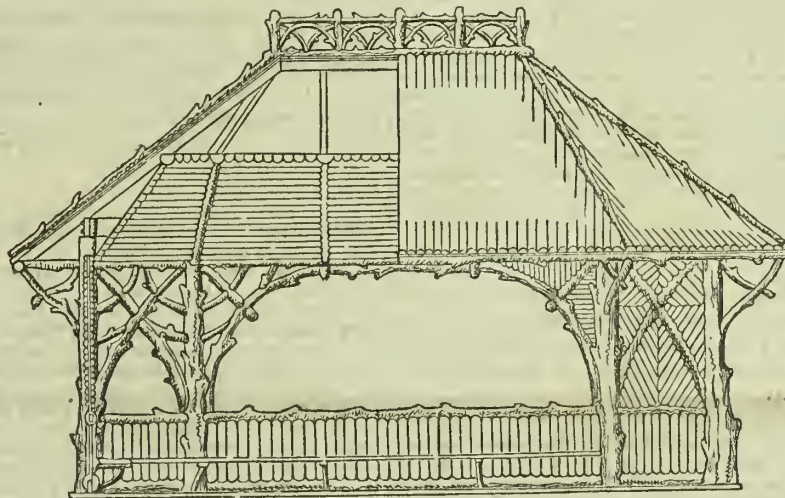
bought for \$10 to \$20 per acre according to facilities for shipping.

The difference between gold and greenbacks is 10 cents.

We hope that our friends in Nebraska will be satisfied with this showing, and they will come here and find things just as we have stated.

Beet Sugar.

The Sacramento company has contracted with farmers to supply the factory with sugar



A RUSTIC SHELTER.

beets at \$5 per ton. Hitherto the company has done its own farming. For many reasons it is desirable to let farmers attend to agriculture, and the factory to making sugar. Experience has taught the company many ways to economize, so that they will this year produce

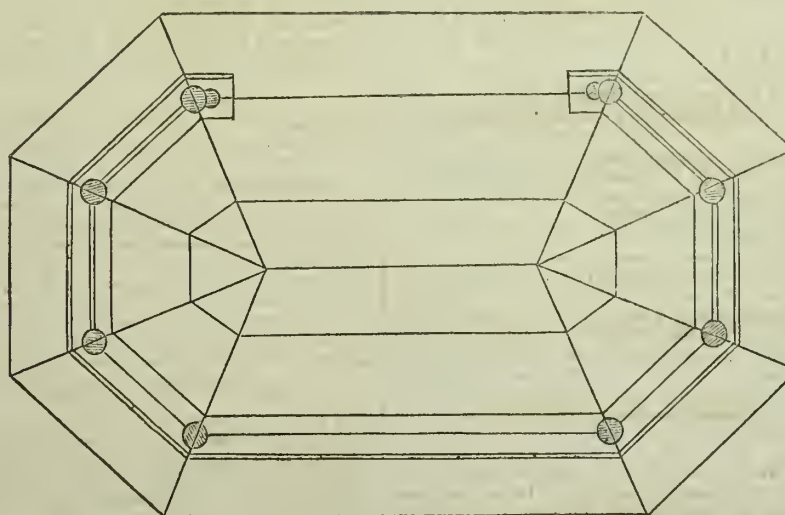
A Rustic Shelter.

The accompanying sketch is of a rustic shelter erected in 1872, by Mr. Anton Gerster, on the shore of the large lake in Prospect Park, Brooklyn, N. Y. Its dimensions are 28x16 ft. Posts, railing and plates are of sassafras timbers, twelve inches in diameter.

The octagon portion is enclosed with slips of red cedar, with ceiling boards between, making

a perfect tight roof. The inside is a high ceiling as shown in the plan.

The ridge is of rustic ornaments. In short, the plan is a working one, showing on the left, the inside with seats and ceiling finish, on the right, showing the outside finish. The seats are in the octagon portion, which gives seclu-



GROUND PLAN.

sugar at still less cost than last year, which was very profitable in its results.

It is now a safe business, in which capital may engage with perfect confidence. But it is necessary to procure skilled workmen and superintendents.

The present superintendent proposes to take a number of young men under instruction, in order that they may not depend on Europe for skill. This is a good move.

The molasses from sugar beets is not suited for domestic use. The company has put up a distillery to convert it into spirits; by this means a large saving will be effected.

Two years ago their production was all brown sugar; now 11-16 of all their sugar is white loaf of superior quality. The refinement is effected by superheated steam, and the process adds but a trifle to the cost.

Turlock has shipped 11,350 tons of wheat since last June up to the first of March.

The Place for Those Boys and Girls.

The postscript to a letter from a party residing in Enterprise City, Minnesota, contains the following: "I hope to look in upon you this month or in April. I represent eleven children, seven boys and four girls, constituting a fine family, and would like a warmer climate to winter in."

We are not fond of dilating upon the climate of California, for the reason that we do not like to lay ourselves open to the charge of "blowing;" and no one can do this subject justice without arousing such suspicions in the minds of outsiders. But we will take this occasion to correct an error which evidently prevails in the minds of many. We wish to inform our readers that this is as good a country to summer in as to winter in. While we escape the rigors of an Eastern winter, when this season passes away and spring approaches, it does not bring with it the disarrangement of the physical and even mental system which the radical change of extremes of cold and heat produces.

In connection with California summers more should be said about the comfort of our nights in the warm season. In the Atlantic States the nights are the most uncomfortable portion of the twenty-four hours, all through the warm season; the heat being more prostrating; and when people leave their chambers it is like escaping from a place of punishment instead of leaving a haven of rest. There is a general languor and lack of appetite, and they actually find more rest, and means of recuperation, in the exercise of the day than in sleep at night. Cool nights, "good nights for sleeping," are characteristic of all California; and none of the charms of the country are more fully appreciated than this. The buoyancy and cheerfulness of the people of California is undoubtedly due in a great measure to this.

A "fine family of seven boys and four girls," bringing with them industrious, frugal habits, will meet with a good reception in any part of California; and if they possess the adaptability of character essential to success in any new country, their chances will be much better here than in the Eastern States.

FRUIT DEALERS' RULES.—The commission dealers of Chicago and representatives of the Fruit Growers' Association of Illinois held a meeting recently at which the following rules were adopted:

"All fruit shipped by the members of this association shall, as far as possible, be graded as follows: First, good, which shall have none but sound fruit in it, and shall be graded the same throughout the package; provided, that some of the very finest may be denominated "fancy." The second grade shall be constituted of such fair fruit as will pay for shipment, but which is not guaranteed perfect, although it is entirely sound.

On all of first grade—"good" and "fancy"—the shipper's name is to be put on each package in plain letters, and is a guarantee of its perfection, else the sale is invalid.

All of the second grade is to be sent into market without brand, and sold on its merits. But in all cases all parts of the package are to be of the same class of fruit throughout.

Concealing rotten or gnarled fruits in a package, and covering the outside with fair fruit, shall be considered *prima facie* evidence of dishonesty in all the investigations under these rules.

The meeting pledged itself to adhere strictly to the above, and adopted another rule which provides a penalty of expulsion for any violation of these rules, or for any unfair dealing. We hope to see all these rules transplanted from Chicago to San Francisco.

GOOD REPORTS FROM TULARE COUNTY.—Mr. G. W. Camp writes from Grangeville, Tulare county, March 5th, as follows: "Crops look extremely well here, but as most of the grain was sown very late, we will need one or two more good rains to insure a good crop. The new irrigating ditches in this vicinity are nearly completed, and the old ones are running full of water, making the plains, which a few years ago were a desert, a perfect paradise."

TELL US JUST WHERE YOU ARE.—If those who wish to have their paper stopped, or desire a change in the address, would be a little more explicit in giving the town, county and State, it would be more satisfactory to all parties concerned.

CORRESPONDENCE.

[The *RURAL PRESS*, in opening the columns of this department to its correspondents, does not desire to lay before its readers anything which is not in keeping with its character and position as an agricultural and family paper. Facts are always thankfully received; and suggestions and matters of opinion on subjects connected with agriculture are also acceptable; though correspondents are to be understood as speaking for themselves and not for the *PRESS*.]

Trip to Mt. St. Helena and Vicinity.

MESSRS. EDITORS:—The road from Santa Rosa winds along the edge of the plain toward Healdsburg, through a beautiful and finely improved valley. After a few miles we bore off through the hills toward Knight's valley, passing over undulating and ascending grades to the ranch of Tanz and Lillingthal. The cañon at the roadside contains a small stream, tumbling from rock to rock. Its sides are half concealed by a luxuriant growth of evergreen trees and shrubs, and the tyron or chokeberry was gorgeous with its clusters of crimson berries. These men have 240 acres of rolling land, with good improvements, including 5,000 vines, an orchard, and water pipes from a spring into the house and barn. Price, \$7,000, with stock and farming implements. Whether it is a bargain or not I do not know; but it would be a cozy place to live, and not very remote from the railway station.

From the top of a ridge on the north side of this place we had a splendid view of the broken mountain ranges in all directions. Here and there valleys and farm houses are visible, and far to the north rises the St. Helena range, and the mining region of Pine Flat in full view. Early discoverers thought they discerned the likeness of a sleeping figure in the shape of the mountain crest, and named it Saint Helena. Very little aid is required from the imagination to see the saint reposing on her back, with the rounded outlines of face, bust, and extended limbs in profile, as if covered with a sheet. It is the highest peak between the Bay of San Francisco and Mt. Shasta, and visible more than fifty miles. Descending rapidly we crossed a tributary of Russian river, and wound our way again up hills and along narrow gorges, in passes dangerous for the meeting of wagons. After crossing Elk creek we arrived, late in the day, at Mr. Geo. Hood's ranch, near the west end of Knight's valley. The bachelor housekeeper, his son, was absent. We took possession and spread our lunch on the table. Dinner over, we set out on foot to look after the sheep and lambs. There is a vineyard of 20,000 vines, and some other good improvements on the place. The owner had the good taste to leave standing many madrone and live oaks to beautify his grounds. While looking up the sheep the loud report of a rifle alarmed the flock. Away below, in a wooded ravine, a puff of blue smoke rose curling over the foliage, and three deer leaped into the open ground, and rapidly disappeared. Wildcats and eagles are terrible marauders, and very destructive here on young lambs.

Returning to the house an hour by sun, my host busied himself with preparations for supper, and the visitor strolled out along the Calistoga road for new points of view. Down a steep bank, holding by fragrant bunches of pepper wood, and sliding to the bottom with a leap across the streamlet below; then over a fence into the highway, leading between hills covered with verdure, past magnificent piles of gray rocks, protruding from the green sward and hoary with the marks of time, their crevices adorned with vines and shrubs, fit ornaments for a park—past herds of cattle and sheep, grazing, or lying in the pastures, where no habitation was in view, and the quiet of nature and the long shadows of the descending sun, made up a picture not often seen by the denizens of cities. Right and left the green pastures swelled from the plain into knolls crowned by clumps of live oaks. Behind, and miles away, towered bare, rocky ridges, with St. Helena overtopping them all, and tinged by the setting sun with golden hues, which shaded into rose colored and deeper tints as the light faded.

A clattering of hoofs down the road, a cloud of dust, and directly young Mr. Hood came racing home from a day's work helping a neighbor mark his sheep. We reached the house in time to assist his paternal ancestor dispose of the supper. He had burned his hands in preparing the steak after a recipe given by Judge Langdon, who is not only a good lawyer and a genial gentleman, but a noted cook, which in early times was of more value than his other accomplishments.

In the morning breakfast, and away through Knight's valley to Calvin Holmes' ranch of 2,000 acres. Here large and commodious barns give shelter to 2,000 sheep and numerous well bred cattle. The farming machinery is sheltered also. Whatever may be said of the waste of Californians, it does not apply to this ranch. Thrift and intelligence seem to control his operations from the smith shop to the vineyard. He thinks there will be an increase of one hundred per cent. this year in his lambs, to his flock of ewes. We declined the hospitable invitation to stay to lunch, as it was yet three

hours till noon, and drove on. The quicksilver mines are in this vicinity, but as we do not dabble in stocks they were not visited. Their ground-sluicing has ruined Knight's valley creek, once a sparkling trout stream, now a slimy ditch.

On the way to Healdsburg, via. Alessuder's valley, we saw a mountain road climbing to the mines, and steam puffing from works a long way off on the mountain side. The sky was lowering; heavy mists hung around the peaks and settled down to the tops of lower eminences, which in places swelled into emerald islands of grassy verdure above the mists. For many miles to the Russian river the plain is very fertile and highly improved. It is one of the best agricultural regions in the State, and extends down around Healdsburg, and into the Santa Rosa valley. The climate is also magnificent. The writer speaks advisedly, after prosecuting long searches from end to end of this coast. The almond and the vine are largely cultivated, and no irrigation is required for any purpose. Farmers here estimate an increase of fifty per cent. in the extent of wheat planted over last year.

As you have invited correspondence descriptive of different portions of the State, for the information of immigrants, it is proper to mention that the prices of farming lands along this route vary according to improvement and location, from \$20 to \$100 per acre. Good grazing lands sell for \$10 to \$20 per acre. Santa Rosa is the shire town of Sonoma county. It contains two flourishing colleges and good public schools. The population is not far from 3,500, and is rapidly increasing. Stage lines radiate to various points from Santa Rosa, which has first-class hotel accommodations.

Healdsburg has a population of about 1,200, and is a bustling, thriving town. There are many evidences of prosperity in its surroundings, and the environs are full of beauty. Its proximity to the mines renders its future tolerably well assured. If the vandals who cut the forest trees out of its place would turn their misdirected energies to filling up the laguna in the heart of the town, they would do something in the way of atonement for their barbarism. The business men, however, sustain one of the best country papers in the State, the *Russian River Flag*, published by the Howell Bros.

J. B. ARMSTRONG.

Mussel Slough Country.

MESSRS. EDITORS.—Perhaps some of the readers of your valuable paper would like to know how farming and other matters are prospering in Kings River or Mussel Slough country.

It is some five or six weeks since we had any rain, yet notwithstanding this our volunteer grain and grass is as early as it has been for several seasons past. The weather has been very pleasant for the last three weeks, until the last five days, during which we have had north-west winds which have had a bad effect on late sown grain.

The people in this section of country, or west of Mussel Slough, are independent this season in regard to water. We have the Rhoads, the Lake Side, and the Last Chance ditches. The latter supplies about 12,000 acres with water this season. It is the opinion of most of the farmers that if grain does well here this season, the country will be destitute of about one-half the number of men and horses that will be needed to harvest it in due season.

Alfalfa has attracted the attention of a good many farmers in this country, and there will be about 2,000 acres of it sown this year in this vicinity. This country seems well adapted to its growth. A good stand will yield from one and a half to two tons at each mowing and will, besides, keep from three to five head of stock during the winter.

J. H. J.

Grangeville, Tulare Co., March 1st, 1875.

THE SCUPPERNON GRAPE IN NEW YORK.—EDITORS *PRESS*:—In reply to your inquiry about this grape—It is a strong and healthy vine, withstanding the extreme heat and moisture of a southern climate and growing to great size and age. The fruit grows in small clusters, is very foxy and pungent—with a thick skin, and hard pulp, but makes a very good wine; and growing to great size—yields large crops per vine. We see the fruit at our fairs every year, but we do not consider it desirable as compared with our Concord and other better varieties, and in a country where the foreign grapes do so well as they do in California, we should hardly suppose it desirable.

J. B. JONES.

Rochester, New York.

THE REPORT OF THE GEOLOGICAL SURVEY OF MISSOURI.—This volume, comprising 734 octavo pages, besides index and plates, is a worthy successor to the report of Prof. Pumpelly. Like that report, it treats with special fullness of the resources of Missouri in useful minerals and cannot fail of a direct and immediate effect in advancing the development of the State. We take pleasure in presenting to our readers as full an account of its contents as our limited space will permit. The plates appended to the volume comprise about ninety lithographic illustrations, referring, almost without exception, to ore deposits and mining and metallurgical operations.

THE *Anbun Herald* says that Mr. Silen, an extensive fruit raiser near Newcastle, picked the first strawberries of the season from his vines on the 8th inst.

POULTRY YARD.

Carbolic Acid in Poultry Houses.

A writer in the *London Field* strongly recommends the use of carbolic acid for destroying insects in pigeon and poultry houses, asserting that it neither injures the birds nor tends to drive them from their nests. He uses it in the form of a solution of two ounces of common carbolic acid to three quarts of water, applying this once a week with a watering-pot, after the house has been carefully swept out. Besides the lice and acari that it destroys, it is also efficient in driving out fleas. For the purpose of expelling lice from the bodies of pigeons, the proposed method is said to be to mix one part of Calvert's liquid carbolic acid with thirty parts of water, first mixing the acid with a very little glycerine, adding the water, and shaking well before use. This is to be applied with a small brush to the roots of the feathers about the lower part of the belly and around the vent, where the greatest number of insects will always be found. This application leaves no stains, kills the vermin instantaneously wherever it touches them; and two or three applications, at intervals of a few days, are sufficient to make the foulest specimen thoroughly clean. The writer also uses Calvert's carbolic acid disinfecting powder, dusting it often over the bodies of even the young birds, without injury to them, and with equally good results.

[I can vouch for the truth of the above. There is no carbolic powder in quantities to be had on this coast, as I import it in 100-lb. barrels from St. Louis. It is about the only thing which enables us to successfully contend with lice. After our rains cease it is almost impossible to raise chicks on account of the rapid multiplication of insects, of which we have four kinds; but carbolic acid, with some other precautions and applications, will secure success. This matter of contending against lice will be the subject of a future paper for the *PRESS*.—EYRE.]

OVER-FEEDING CHOICE FOWLS.—In the illustrated poultry circular published by M. Eyre, Jr., of Napa, Cal., we find the following:

In many cases those who purchase fancy fowls, especially Brahmas, for the first time, ruin them by over feeding. They thus destroy the egg producing qualities of the hens, and then, perhaps, assert that the breed is inferior to the common dunghill, when in reality the fault is wholly with themselves. I feed twice a day to fowls in confinement in the morning soft food, about two tablespoonfuls to each fowl, and at night a pint of grain to eight fowls, and if they do not eagerly run for that I lessen the amount. I give regular supplies of green food, of course, and, at certain seasons a small quantity of meat. I refer to mature fowls; growing chicks should be fed all they will eat.

I find that it will render my circular too lengthy to give directions, as I at first intended, for care and treatment of fowls, and the proper precautions against their two greatest enemies on this coast, lice, and a swelling of the head and running at the nostrils, nearly allied to roup; but I intend to write for the *PACIFIC RURAL PRESS*, during the spring, a series of articles which I hope may be of benefit to those who raise fowls on this coast, where, with proper care, success is so easily attained.

TO MAKE HENS LAY.—When eggs bear such a price, and are so delicious in the many ways the good cook brings them to the table, it is necessary the hens should have a little attention. Give them warm drink every morning. See that they have an abundance of gravel; old pieces of crockery pounded up will answer better than nothing. Concoct a pudding for them two or three times a week, not oftener. Place an old pail out at one side, and into this throw the meat scraps that are good for nothing else, egg-shells, beans, hominy, bread crusts, corn parched very brown, coarse meal, siftings, etc., and when the day arrives to serve up this dish, take the water in which you have parboiled your pork and beans, or other greasy water, stirring into it bran sufficient to thicken well, allowing it to cook a few minutes, pouring the whole over these saved up scraps. Let it stand a short time after it is thoroughly stirred, and feed while warm. Aside from this give warm drink every morning and you will have plenty of eggs.

IMMENSE PHOTOGRAPHS.—There are now on exhibition in Paris says the *Revue Industrielle*, the two largest photographs which have been made since the introduction of the art. One of these photographs represents the principal bronzes—the *Departure*, by Rodé—of the *Arce Triomphe de l'Etoile*. Each of the prints facade of the new Opera, the other one of the measures four feet three inches in length and three feet four inches in height. They were obtained in one single piece, by well known processes, and with the aid of a large and specially constructed camera.

A CALIFORNIAN of twenty years experience, is of the opinion that good, sweet Mission grapes fed to hogs would make as much pork, pound for pound, as corn, if hogs were let in the vineyards late in the fall, to eat the grapes, rather than to sell or pack them for \$15 per ton.

SHEEP AND WOOL.

American vs. English Breeds.

Editors *Rural New-Yorker*:—I notice in the November number of the *American Agriculturist*, Mr. Joseph Harris, in his "Walks and Talks," has at last come around to my way of thinking in regard to breeding English sheep in this country. He says, "It is not an easy matter to keep our sheep up to the English standard." I say it is impossible, and have argued that not only the climate was against us, to which Mr. Harris alludes, but that the English system of feeding produces an excessive growth, consequently a weakened constitution, ill adapted to our rigorous and changeable climate; and being thus pampered, I insist that there is a constitutional propensity inherent, requiring more stimulating food than American farmers usually feed; and moreover, if we should follow the English formula to the letter, the sheep will deteriorate. Mr. Harris brought out an important fact in this connection which substantiates my position and sheds light on the English system of breeding and at the same time shows the absurdity of the glamour of "imported" when he remarks:

We often hear of "improved" Cotswolds, or "improved" Leicesters or "improved" Berkshires, which I suppose simply means that they have been crossed with some other breed. Bring this "improved" stock here and keep it here and it will inevitably degenerate. It is easier to make an improvement than to keep it. The measure of honor among American breeders will not admit of these crosses to keep up the standard with the various thoroughbred breeds, as custom has established a law requiring a direct descent without any break from imported stock. After we cross the water, no questions are asked and no guarantees are required from sheep or pig breeders. It is evident from these facts that the English breed has a great advantage, owing to the ready gullibility of Americans and their fashionable weakness for "imported" stock. The English breeder can doctor, pamper and cross his pigs and sheep without limit and call them whatever names he choose, and his enterprise is accepted by the Americans as standard authority. How long shall this nonsense continue? Is it not time that we began to establish American breeds?—F. D. CURTIS.

The Wool Market.

NEW YORK, March 15.—During the week but few buyers have been in town, and their purchases have been simply to supply the immediate wants of their mills. Light medium grades are wanted, but the supply of that description is very light, the stock being composed chiefly of finer grades. Fall California has met with a fair demand, but sales have been mostly of the poorer grades, which dealers seem anxious to dispose of. The prices realized are generally low, as holders have but little confidence in the future of the market. Foreign clothing wool moves slowly, but carpet stock is improving in demand, as the inquiry for goods is increasing. Sales for the week are 1,500 bales Greek and 27 do. Persian, private; 55 do. Cape, part at 36½ cents; 300,000 pounds Fall California at 16@19c. for bony and slightly do., and 20@25c. for free; 85,000 pounds Spring do. at 26@35½c.; 35,000 pounds black do. at 24c.; 200 bags scoured do. at 60@56c.; 100 bales choice Oregon, at about 43c.; 5,000 pounds coarse do. at 35@39c.; 53,000 pounds Western Texas at 30@32c.; 3,000 pounds medium do. at 35c.; 100,000 pounds Colorado, private; 3,000 pounds heavy fleece at 50c.; 4,000 pounds unwashed combing do. at 44c.; 10,000 pounds Ohio do., private; 30,000 pounds super pulled at 48@50c.; and 25,000 pounds gray Noils at 24c.

Boston, March 13.—There has been no material change in the Wool market, but the demand has been more active, and transactions embrace several large lines of fine wools, but prices are far from satisfactory. The decline in fine Ohio and Pennsylvania fleeces has been from 3 to 4 cents per pound, from the highest point a few weeks ago, and even at this decline manufacturers appear to be quite indifferent about supplies. Medium and No. 1 fleeces would now command higher prices than XXX and Picklock, and a coarse X is higher and more wanted than a fine XX. The demand runs about exclusively on wools suitable for the manufacture of coarse fabrics, and for the time being the fine wools are dull and neglected. A good XX Ohio and Pennsylvania would not bring over 53 cents, and sales have been made at that figure, while a good X has been sold as high as 56 cents. The order in fact has been reversed, and fine fleeces and desirable lots of super and extra pulled are so comparatively scarce and so much sought after that we look for a firm market and good prices for all available lots. Transactions in California wool have been 360,000 pounds, at 26@39c.; Fall California, 14@24c.—Call.

THE editor of the *Grayson Herald*, in speaking of a trip he made in his neighborhood last week, says that he rode through a field of wheat belonging to Mr. McDonald, of 10,000 acres, which he summer fallowed, sowing twenty-five pound of seed to the acre, which will yield from thirty to forty bushels.

FARMERS in vicinity of Folsom say their wheat is looking splendid, and they expect a good yield this season.

Result of the Tree Planting Act.

Minnesota is the first State in the Union that has shown any palpable results growing out of the Congressional Act for the encouragement of forest-tree planting. This Act provides that the title to a quarter section of public land may be acquired by any citizen, twenty-one years old, who shall plant, protect and keep in healthy condition, forty acres of timber, the trees thereon not being more than twelve feet apart each way. This incentive would seem sufficiently strong to stimulate the planting of trees to an extent that would make good to the second coming generation, at farthest, the damages that this generation has inflicted upon the native forests of America. Still, there has been a manifest lack of faith that any substantial results would follow. It was supposed that the shifting habits and general impatience, characteristic of the American people, would fail to make the Act of any avail.

But it seems that in this, as in others of serious emergencies, we are likely to astonish lookers on. We find that, in Minnesota, one hundred and seventy thousand acres have been claimed under this Act, and that over twenty million trees have been planted.

At a recent meeting of the Minnesota Agricultural Society, an essay on forest culture was read by Leonard B. Hodge, which contain the following bold but tenable propositions:

First—That the farmer on the bleakest portion of our treeless region can, with less ready money than it would cost to buy a breaking plow, surround his stock yard and buildings with a wind-break within five years that will protect him as effectually as though he was in the middle of the big woods.

Second—That a crop of trees can be grown as surely, and, in proportion to its value, with far less expense than a crop of corn.

Third—That ten acres properly planted to timber, and properly cultivated, will, in five years, supply fuel for a family in great abundance, and also fencing for a farm of 160 acres.

Fourth—That the most worthless lands of our treeless regions can, through the intervention of the tree-planter, be sold for \$100 per acre, within twenty years.

Fifth—That the net profits on a quarter section of prairie, properly prepared, planted, and cultivated with forest trees, will, within ten years, exceed the net profits of ten quarter sections of wheat.

Sixth—That a single cottonwood-seed, although smaller than "a grain of mustard," can, by intelligent cultivation, be developed into a cord of firewood within twenty years.

Seventh—That any young man of muscular development and good "horse sense" can surely accomplish these results, providing always that he is not in too great haste to get rich, and,

Eighth—That the genuine white willow, properly handled, will increase faster than money at interest at four per cent. per month, and that the first Division of the St. Paul and Pacific Railroad Company is now prepared to furnish it to settlers on their lines, delivered at any station on the prairie, free of transportation, at a cost of \$1 to \$2 per 1,000 trees. These may to some sound like bold, reckless and perhaps ignorant assertions, but they are hereby made and I propose to stand by them.

In Minnesota, we have planted forest trees, given them from eight to sixteen years' cultivation, at a cost of not to exceed five cents per tree, and some of those trees will to-day yield a cord of wood per tree. We have planted and cultivated hundreds of thousands of trees within two years.

It is to be hoped that this report, and these suggestions of Mr. Hodge, will act as a stimulus in relation to the vast scheme of forest culture. There should not, however, be too much patterning in this work. In selecting trees, each district should give careful consideration to its special needs and peculiar advantages.

A NEW PREVENTIVE FOR THE EFFECTS OF BEE-STINGS.—Mr. G. Walker has made some interesting (but unpleasant) experiments lately, whereby he has proved that immunity from the pain and other effects of the stings of bees can be obtained by inoculation. The following description of his manner of experimentalizing on himself is taken from the *Lancet*:

He went to one of his hives, caught a bee, placed it on his wrist, and allowed it to sting him, taking care that he received the largest amount of poison by preventing it from going away at once. The first few stings he got during this experiment had the usual effect; the whole of his forearm was affected with a cutaneous erysipelas, and there was disorder of the nerves, accompanied with heat, redness, swelling and pain. This attack lasted till Tuesday, and on Wednesday, October 7th, he was so far recovered that, following the same plan, he stung himself three times more, also on the wrist. The attack of erysipelas this time was not nearly so severe, but, as before, he felt a stinging sensation as far up as his shoulder, and he noticed that a lymphatic gland behind his ear had increased considerably in size, the poison having been taken up by the lymphatic system. On Saturday, October 10th, he again treated himself to three stings, and the pain was considerably less, though the swelling was still extensive. At the end of the next week (October 17th) he had eighteen stings; then he stung himself seven times more during the next week and reached the number of thirty-two on October 31st, the course of the experiment having lasted nearly four weeks. After the twentieth sting there was very little swelling or pain, only a slight itching sensation, with a small amount of inflammation in the immediate neighborhood of the part stung, which did not spread further.

The *Placer Argus*, of the 13th, says they were shown an orange a few days ago, that was grown at Ophir, in this county, which for size and quality was equal to the best grown at Los Angeles or San Diego.

Physiology of Eggs.

Every fowl has two small organs near the extremity of the body called the ovaria. They are filled with elastic tissue, and feel under the finger like a sponge. The eggs are started here, and those which will mature a year or two, or three years hence, are in embryo. One is forced up, is sized by the stroma, which is seventeen inches long and passed rapidly through. When the egg leaves the ovary it consists of yolk only, but in its passage through that short canal the yolk is surrounded by enough albumen to perfect the chick. The white of the egg has in it all that nature requires for making bones, muscles, blood vessels, connecting tissues, skin and feathers.

Just before the egg leaves the body, this canal has the power of secreting lime for the shell. This shows how valuable the egg is as nutriment, and also what demands are made for rich food by a hen that lays an egg daily. Besides what she requires for her sustenance, she is called upon to secrete the material for the body of an entire chick, and also retains for the little creature sufficient to last many hours after it leaves the shell. It shows also that a hen cannot make albumen so rapidly except out of albuminous food, such as wheat, meat and small animals.

It is not true that there are a certain number of eggs, and that this number exhausted, no more can be expected; but it is true that the secretions lessen as old age comes on, and latterly the hen fails to have sufficient force to carry forward the process. The practical bearing of this is that we must see that the fowl is always well kept. The way to have good laying pullets is to quicken the circulation and strengthen the system by liberal nutriment. The yolk is food for the first three or four days. Careful housewives make a mistake by attempting to feed them before the expiration of this time. Let the mother bird have charge and success will be certain, for she knows better than any man can what the chick requires.—*Poultry Review*.

Improvements in Telegraphic Apparatus.

A number of telegraphic instruments have been for some time in operation upon the Government lines between the Capital and the War Department, constructed and arranged on a plan invented by Mr. Merritt Galley, of Rochester, New York. An important feature of this system arises from the fact that there is comparatively little expense, and but little change of instruments. A common telegraphic instrument arranged for single transmission, as per old Morse system, may be converted into a line for transmitting messages in both directions at the same time, with the ability to draw a copy of either or both messages at any or all way stations of the line. The line has been in operation with batteries over twenty-five per cent. out of the balance, and still a margin of over twenty per cent. remained for the adjustment of instruments. Preparations are being made to place Mr. Galley's invention not only on all the Department lines, but also on the Signal Service. The Atlantic and Pacific and the Western Union Telegraph companies, as well as others, are also looking into the merits of the invention, with a view to its adoption, should it prove in every way satisfactory.

The most ingenious and perhaps the most important instruments exhibited by the inventor, are those for automatic transmission, in which the objections urged against the automatic in common use seem to be obviated. The invention is emphatically automatic—a single operator with it not only preparing accumulating matter for transmission, but it will transmit any portion of the same to its proper destination, having perfect control of the entire work even over a number of lines, while sitting at a single instrument. He exhibits an instrument which requires no perforated message stub, but by means of peculiar but simple mechanism transmits message after message with the instrument, until such time as the line can be secured, when by a stroke of single key they are sent into the line complete.

Curious Facts About Sponges.

Recent investigations have shown this curious fact about sponges. No matter how long a sponge may have been used, no matter how long it may have been kept dry, its life is apparently restored when it is wet. The sponge being wet with warm water and being placed in a warm room, the extremities of the sponge, after a little while, appear to be alive, and reach out like so many snakes. The longer they are, the greater the motion. It was observed that wetting the sponge with salt water seemed to increase the motion. Nearly half of all the slender points seemed to come to life, but after they become dry the motion ceases.

All sorts of dust were put upon the sponge so that they should be under the same circumstances as the pores of the sponge, but nothing but the pores of the sponge appeared to be in motion. Under the instrument, the sponge has no longer the appearance of a sponge; it appears like caverns, rocks, etc. These moving parts, when caught with pliers, would pull out a portion of the sponge. When there is much water in the sponge, they seem to be satisfied, but it is as the sponge is drying gradually that they appear to have life. This fact was discovered with an instrument which magnified only 42 diameters.

Glove Manufactory.

There are quite a number of glove manufacturers in various parts of the State. There are several in this city to which we propose to make particular reference in future numbers. There is an establishment of this kind in Napa, in which an average of seventy-five deer and fifty sheep skins are daily converted into glove material. The process of tanning employed there says the *Napa Register*, is a secret. It is essentially a chemical process of which the public know nothing, except its beautiful results.

An article of sheep glove leather is made there of wonderful strength and exquisite finish. It is really beautiful. It is made of various styles and colors to suit the public taste. Deer skins are also finished up in a variety of styles to suit the market. The weekly product of glove leather averages 750 skins. The raw material is purchased at all points in the interior and along the coast from the Columbia river to the Mexican boundary. The purchases are generally direct, and not through Commission houses. Here may be seen piled up by hundreds, or perhaps thousands, deer skins in all stages of manufacture.

In addition to the above about 9,000 sheep pelts are tanned and made into ordinary leather monthly. They yield about 20,000 pounds of wool. Wool washing is also carried on extensively, and for two or three months in the year, from 2,000 to 3,000 pounds of wool per day are cleaned and graded. There are many localities in the State where this branch of business might be profitably introduced.

Effects of Poisons on Molluscs.

Professor William North Rice, of Middletown, Conn., states that among the most interesting results of his experiments was the observation that certain poisons, which act with extreme violence upon the mammalia, are very feeble in their action on mollusca. This is especially true of hydrocyanic acid and woorara. Specimens of *Ulyanassa obsoleta*, immersed in dilute hydrocyanic acid on Friday, showed somewhat feeble signs of life on the following Tuesday. A specimen of *Lunatia heros*, into which a quantity of woorara had been injected, was found the next day to show no sign of any injury. Indeed, both of these poisons seemed to produce death very little sooner than the animals would have died in stale water. The sudden introduction of a large amount of carbonic acid in the manner which has been described, seemed to produce no decided effect. On the other hand, chloral hydrate seems to be very suddenly fatal, the animals treated with it becoming instantly contracted, and not resuming their activity when kept for a number of hours in sea water. Cyanide of potassium is similar in its effects, though not quite so instantaneously fatal. The effects of quinine are similar, though less energetic. Chloroform produces instantaneous contraction, and probably death.

MODE OF ASCERTAINING THE VARIOUS KINDS OF MATERIALS IN MIXED FABRICS.—A German industrial journal gives, after M. Vupp, the following treatment for fabrics containing silk and wool, with vegetable fibers. All vegetable fibers resist caustic alkaline solutions, even when boiling, and are dissolved by sulphuric, nitric, hydrochloric acids, even when diluted with odor. Vegetable fibers when burnt do not give forth any characteristic odor. Wool, insoluble in the above acids, is readily attacked by caustic alkalies, especially when hot; the sulphur which it contains combines with the alkali, and the solution becomes black when acetate of lead is added to it. In burning, wool produces the same smell as horn. Silk is dissolved both in the acids and the caustic alkalies, and produces an odor similar to that of wool, but it contains no sulphur, and, consequently, its solution in alkalis is not blackened by acetate of lead. In order to distinguish these materials in a tissue, it is treated first with concentrated hydrochloric acid, cold; the residue is then washed in a filter, and, if necessary, bleached, by means of water containing chlorine, and then washed again in pure water and boiled with caustic soda, which dissolves the wool, leaving the vegetable fiber intact. The wool is distinguished from silk by adding acetate of lead to the liquid, as already mentioned.

WATERED BUTTER.—In the course of some investigations made by Professors Angell and Hehner, England, out of analyses of fifteen samples of butter which were determined by them, twelve of the samples, which were undoubtedly good butter, contained 6 to 13 per cent. of water; the astonishing quantity of 42.3 per cent. was found in one sample from London, or an excess of about 32 per cent. of water, for which Londoners pay from 32 to 43 cents per pound. Another butter from the same place had 24 per cent., these high ratios being due to the fact that the butter had been treated with milk. On the other hand, a sample purchased in Ventnor was found to contain under 4 per cent. of water, and according to the author it contained 50 per cent. of foreign fat. The authors also found that genuine butter spread out on a sheet of paper and exposed for a week to the air in the laboratory became, so far as the senses could judge, indistinguishable from tallow.

A DESTRUCTIVE WORM.—It is estimated that the army worm destroys \$50,000,000 worth of cotton annually in the Southern States.

Achievements by the Sand Blast.

There has recently been exhibited in London, a plate of glass about half an inch thick, which by the sand blast has been pierced through in about ten minutes, and also a large flat file, in which a slit about four inches long and three-eighths of an inch broad, had been cut, by the same means.

The fact seems to be abundantly demonstrated, that sand, driven by an air blast of the pressure of four inches of water, will completely grind or de-polish the surface of glass in ten seconds. If the glass be covered by a stencil of paper or lace, or by a design drawn in any tough elastic substance, such as half dried oil, paint or gum, a picture will be engraved on the surface. Photographic copies in bi-chromated gelatine, from delicate engravings, have been thus faithfully produced on glass.

In photographic pictures in gelatine, taken from nature, the lights and shadows produce films of gelatine of different degrees of thickness. Now, it is found that a carefully regulated sand blast will act upon the glass beneath these films more or less powerfully, in proportion to the thickness of the films, and the half-tones or gradations of light and shade are thus produced on the glass.

Then, too, if the sand blast be applied to a cake of rosin, on which a picture has been produced by photography in gelatine, or drawn by hand in oil or gum, the bare parts of the surface may be cut away to any desired depth. The lines left in relief will be well supported, their base being broader than their top, and there being no under-cutting—as is apt to occur in etching on metal with acid—an electrotype from this matrix may be made, and can be printed from an ordinary press.

Eucalyptus Globulus.

A correspondent of the Department of Agriculture, writes as follows:

Iberia, La.: I obtained a few seeds of the *Eucalyptus Globulus*, and succeeded in raising one of those beautiful trees. It is now five feet high and seventeen months old. Other parties have had excellent success in raising these trees.

The *Boston Journal of Chemistry* for October, gives extracts from a lecture by Professor Bentley, in England, upon the properties and uses of this tree. In alluding to its power of destroying malaria, he says: "It is in this respect commonly regarded as being serviceable in two ways: First, by the far-spreading roots of this gigantic tree acting as a sponge, as it were, and thus pumping up water and draining the ground; and secondly, by emitting odorous, antiseptic emanations from its leaves." The professor does not attach much importance to the latter influence.

He cites the Cape of Good Hope, Algeria, Constantia, Cuba, and the Department of the Var, as localities where the planting of this tree has had a marked effect in the diminution of malarial disease.

INTERESTING INVESTIGATION.—M. Faivre has recently performed a series of experiments of the mulberry, hazel nut, and cherry laurel, which he considers go far to prove the fact that the substances which supply the food of plants have an ascending motion in the bark. For this purpose he made perfect or imperfect annular incisions through the bark or detached pieces of the bark, to which buds were attached, or removed entire cylinders of bark from the trunk. The result of the experiments was that the buds always continued to develop when the communication remained uninterrupted with the lower portion of the trunk; while when this communication was completely destroyed, the buds invariably withered away. It the bud was separated by a perfect annular incision, it withered the more slowly the greater its distance from the incision; and in these cases the starch disappeared entirely from the incision; and in these cases the starch disappears entirely from portion so the wood above the incision between it and the bud. When entire cylinders of bark with buds on them were removed, the buds continued to develop, and even produce branches bearing leaves.

NEW POTTERY GLAZE.—M. Constantin, a chemist of Brest, has invented, for common pottery-ware, a glaze which is completely inoffensive, and which is destined to replace the lead glaze which, up to now, has been always employed, and which has had the serious inconvenience of producing intoxications more or less mild. Already in 1872, M. Constantin had produced a glaze comparatively less dangerous by reason of the small quantity of lead which it contained. His mixture consisted of a silicate of soda added to powdered flint, with a very little minimum of red lead. Since that the glazes accepted at the manufactory of Lanilis, near Brest, do not contain any trace of lead. The two formulas which they use are: First, 100 parts of silicate of soda at 50 degrees; 15 parts of powdered quartz; 15 parts of Mendon chalk; or, second, 100 parts of silicate of soda at 50 degrees; 15 parts powdered quartz; 15 parts Mendon chalk; 10 parts borax. The addition of borax makes the glaze more fusible and brilliant; it requires a less vivid fire than the first formula, and it can be colored green by copper and brown by magnesia.

HOW TO SWALLOW A PILL is thus stated by a correspondent: Put the pill under the tongue and behind the teeth, and let the patient immediately take a large swallow of water, and he will neither feel the pill nor taste it. In fact, he cannot tell where it has gone, and I have seen them look about the floor to see if they had not dropped it.

PATRONS OF HUSBANDRY.

STATE GRANGE HEADQUARTERS.

I. G. GARDNER, State Agent; Executive Committee Rooms; Fruit Growers' Associations, and Farmers' Mutual Life Insurance Company, all at No. 6 Liedesdorf street. W. H. BAXTER, State Secretary, at Grangers' Bank, 415 California street, S. F.

Grange Clubs for the Rural.

The Secretary (or some other Patron) is invited to act as club agent for the PACIFIC RURAL PRESS in every Grange. Circular and sample copies sent free. Five or more names will constitute a club, at the rate of \$3 a year. No new subscriptions will be taken without payment in advance. We will pay the postage after Jan. 1st, 1875. All club subscriptions in Granges should end on the last day of the month. Old subscribers may join the club by paying the Secretary up to club dates. Every Patron farmer should read a reliable agricultural paper. We need the support of all on this coast. Help the Secretary (or club agent) to make up a large list in your neighborhood. Don't delay.

NOTICE TO STOCKHOLDERS OF THE GRANGERS' BANK OF CALIFORNIA.

At the meeting of the Directors, on Feb. 9th, the following resolution was passed:

That all assessments due and not paid on Feb. 1st, 1875, shall be charged interest at one per cent. per month from that date till paid. It will be to the interest of all delinquents to give this notice prompt attention.

Also the following resolution was passed:

That on all stock taken on and after the first day of April, 1875, a premium of one per cent. per month will be placed, reckoning from Aug. 1st, 1874, on all assessments payable up to the time the stock is taken.

F. A. CRESSEY, Sec'y.

San Francisco, Cal., Feb. 9th, 1875.

Secretaries will be supplied with a printed list of subscribers for this paper upon sending a list of their offices within the range of their Grange. Also with blank report, etc., for clubs.

The National Grange and the Texas Pacific Railroad.

As contradictory statements have been circulated in reference to the action of the National Grange on this question, conveying vague and indefinite ideas concerning the position of the Order in the matter, we give below the report of the Committee on the subject, which was unanimously adopted at the Convention, February 12th:

"Your Committee, to whom was referred resolutions of the Texas State Grange, and of numerous other bodies in different sections of the United States, to extend its aid to the Texas Pacific Railroad, have had the same under consideration, and ask to make this report:

"Your Committee have viewed with great interest the expressions of approval and appeals to Congress to forward this great work, emanating from the State Granges and Boards of Trade, from the Pacific to the Atlantic, and are impressed with the great and obvious benefits which would result to this whole nation by the speedy completion of this road; and as it is an enterprise too vast to depend alone for its success upon private capital, equal justice to all sections of our common country requires aid of the National Government to forward this work, under the proper restrictions and safeguards, insuring the Government against loss, and the people against unjust impositions and discriminations.

"Your Committee therefore submit the following resolutions:

"That this National Grange earnestly invites the attention of Congress to the necessity of a speedy completion of the Texas Pacific Railroad, and asks of that body reasonable aid to the company, which has inaugurated this great national enterprise under such cautionary restrictions and safeguards as the prudence and wisdom of Congress may devise to guarantee the Government against loss and protect the agricultural interests of every section of the country against unjust discriminations in the price of transportation."

In Memoriam.

WHEREAS On the 8th day of February, 1875, the Great Master or the Universe has called from us here below to eternity above, our beloved Sister, Kate Ransom Rine, and passed her to a higher degree,

Resolved, That the members of St. Helena Grange, Patrons of Husbandry, No. 30, have learned with profound sorrow the death of Sister Virginia Kate Ransom Rine, one of the charter members of this Grange, and one of its most devoted and self-sacrificing workers; though an invalid, and therefore seldom able to be with us, yet always cheering us with some hopeful message, verbal or written.

Resolved, That the fittest method of cherishing her memory is to imitate her example of good works, her patience in a protracted illness, her unshaken and unswerving fidelity to duty in all the relations of life, her consecration to all the interests of the Grange movement, and her childlike trust in the wisdom and goodness of her Heavenly Father.

Resolved, That to our greatly bereaved Brother, Dr. D. K. Rule, the husband of the deceased, and to all the relations of Sister Rine, we extend our condolences and sympathy.

Resolved, That a copy of the foregoing resolutions be spread upon the minutes of this Grange, and that a copy be sent to the family of the deceased, to our county papers, and to the Rural Press for publication.

CHAS. A. STONY, Secretary.

St. Helena Grange, March 6, 1875.

ELK RIVER GRANGE ON TEXT BOOKS.—Among the Granges that have defined their position on the school book question, is the Elk River Grange, which indorses the action of the Board of Education, in substituting the Pacific Coast Reader for the McGuffey's Series.

Eighth Annual Session of the National Grange.

A Summary on the Proceedings by J. W. A. Wright.

Brother Wright, of this State, has furnished the *Patron of Husbandry*, published at Columbus, Miss., with the following summary of the proceedings:

On the 16th of February, at 2 p. m., closed the longest and certainly a very important meeting of the National Grange, which convened at Charleston on the 3d. The session continued 12 days, and each day witnessed some important action of that body, notwithstanding what has been said by some papers, unfriendly to our Order, about the time spent in excursions planned for the recreation and information of the delegates by the hospitable attention of the members of Ashley Grange, No. 1, and the citizens of Charleston generally. Only 72 members, all told, were present, instead of 150 as has been erroneously stated. 35 States and three Territories were represented. 24 lady members were present this year, while you will remember that last year there were 17 ladies present in an attendance of 70.

The important acts of the session already made public may be summed up as follows:

1. The emphatic request for Congressional aid, with proper restrictions, to the Texas Pacific R. R.

2. Action favoring the construction of a double steel track railway from the Mississippi river near St. Louis to the Atlantic at some Northern port.

3. Resolutions favoring the speedy completion of the Spartansburg and Asheville R. R., thus connecting Chicago and other Western cities with the Atlantic at Charleston by a route of 100 miles shorter than by any other.

4. Hearty approval of the resolutions of the Agricultural Association of Georgia, which recommend the construction of canals to connect the Ohio and Tennessee rivers with the Atlantic.

5. Recommendation of government aid to repair the levees on the Mississippi.

6. Advocating the opening, by National aid, of the mouth of the Mississippi.

7. Request to Congress for reduction of tax on Tobacco.

8. Expressed opposition to an injurious extension of patent rights.

9. Recommendations with regard to the Centennial Exposition at Philadelphia.

10. Resolutions favoring the early completion of the Washington National Monument.

11. Adoption of the Constitution of the National Grange as amended at the last session, and ratified by three-fourths of the State Granges.

12. Other important amendments to the constitution and by-laws.

13. Careful preparation, for the use of the Order, of a Parliamentary Guide and a Digest of Decisions on Constitutional Questions.

14. Decision to move the headquarters of the National Grange from Washington to some point in the West, which the members of the Executive Committee are to select.

15. Distribution of part of the funds of the National Grange as a loan without interest to the different State Granges. This loan is in the proportion of \$2.50 to each Subordinate Grange in each State, but it is not intended to be divided among the Subordinate Granges.

16. Additional safeguards have been thrown around the expenditure of the funds of the National Grange for the ensuing year, looking chiefly to economy.

17. No one result of this session was more satisfactory than the proof that, in spite of all malicious assertions of hostile papers to the contrary, our worthy Secretary and Treasurer have handled all the funds entrusted to their keeping with the most perfect integrity.

18. The election of members of the Executive Committee was an important matter. At the last session it was determined to increase the number from three to five. D. W. Aiken of South Carolina is re-elected for three years, and the two new members are D. T. Chase, of New Hampshire, and John T. Jones, of Arkansas. R. E. Shankland, of Iowa, continues for two years and Wm. Saunders, of Washington City, for one year. You see that the five are well distributed, in this way illustrating how truly national our Grange work is.

19. The National Grange will meet in San Francisco next November, if on investigation it is found that the expense to its Treasury will not be too great.

20. An important change made by the ratification and final adoption of the new Constitution is, that Past Masters are no longer, as such, even honorary members of the National or State Granges.

Such are the chief results of public interest. Many other things were done which will be made known in due form and time to the brotherhood.

But how can words do full justice to the happy and useful effects of the friendly intercourse brought about by this meeting in Charleston, especially by such intimate acquaintance as was secured by the three or four delightful excursions tendered so generously and so courteously by the citizens of South Carolina?

You have no doubt read with interest the utterances of different speakers on the occasion of the public reception, the visit by invitation to the Chamber of Commerce, the excursion up Ashley river, and again on the bay to Sumter and other points of interest. To be brief, you may put it down as certain that the

words spoken on all these occasions were not shallow words of mere courtesy, but were heartfelt and earnest.

They were but the outpouring of the kindly sympathy reciprocated not only by the members of our Order but by the many kind friends of Charleston who represented every class of our interests.

Rest assured this meeting and its undoubted good results are among the many powerful influences which are tending with irresistible force to sweep away misgovernment from our midst, and to make our people one in interest and one in feeling, as they should ever be.

Yours fraternally, J. W. A. WRIGHT.

Greene Springs, Ala., Feb., 1875.

The Grangers' Business Association.

The Board of Directors of the Grangers' Business Association, of California, at their regular meeting, held on the 9th and 10th of March, 1875, have requested and accepted the services of the speakers, hereinafter mentioned, to make a canvass in the interest of the Association, to present to Patrons of Husbandry the scheme of business of the Incorporation, and solicit subscriptions to the capital stock of the company. Addresses will be made at 1 p. m., at the halls of the several Granges, as follows:

By Brothers Joel Russell and Daniel Inman, at Oakland, Saturday, March 20th; Livermore, Monday, March 22d; Hayward, Tuesday, March 23d; Centerville, Wednesday, March 24th; San Jose, Thursday, March 25th; Saratoga, Friday, March 26th; Santa Clara, Saturday, March 27th; San Mateo, Monday, March 29th.

By Brothers C. J. Moseley and W. L. Overhiser, at Crescent, Saturday, March 20th; Pescadero, Monday, March 22d; Santa Cruz, Tuesday, March 23d; Watsonville, Wednesday, March 24th; Castroville, Thursday, March 25th; Salinas, Friday, March 26th; Gilroy, Saturday, March 27th; Hollister, Monday, March 29th; Mountain View, Tuesday, March 30th.

By Bros. B. Marks, W. H. Baxter: Martinez, Saturday, March 20th, 1875; Pacheco, Monday, March 22d; Antioch, Tuesday, March 23d; Walnut Creek, Wednesday, 24th; Point of Timber, Thursday, 25th; Danville, Friday, 26th.

By Bros. R. C. Haile and O. Hubbel: Petaluma, Saturday, March 20th; Bloomfield, Monday, March 22d; Sebastopol, Tuesday, March 23d; Santa Rosa, Wednesday, March 24th; Bennett Valley, Thursday, March 25th; Healdsburg, Friday, March 26th; Geyserville, Saturday, March 27th; Cloverdale, Monday, March 29th.

By Bros. C. J. Cressey and J. D. Blanchard: Vallejo, Saturday, March 20th; St. Helena, Monday, March 22d; Calistoga, Tuesday, March 23d; Pope Valley, Wednesday, March 24th; Berryessa, Thursday, March 25th; Napa, Saturday, March 27th.

By Bros. J. E. Brooks and A. Adams: Rockville, Saturday, March 20th; Suisun, Monday, March 22d; Vacaville, Tuesday, March 23d; Elmira, Wednesday, March 24th; Dixon, Thursday, March 25th; Maine Prairie, Friday, March 26th; Davisville, Saturday, March 27th.

By J. C. Merryfield and N. Jones: West Graton, Saturday, March 20th; Woodland, Monday, March 22d; Cache Creek, Tuesday, March 23d; Buckeye, Wednesday, March 24th; Capay, Thursday, March 25th; Hungry Hollow, Friday, March 26th; Antelope, Saturday, March 27th; Yolo, Monday, March 29th.

Bro. Geo. Colby will make his own appointments for Butte and Tehama counties and publish them.

Bros. A. C. Bradford, M. S. Babcock and Thos. Fowler will make their appointments for Tulare, Fresno, Kern and Inyo counties and publish them.

Bros. M. Thorn and G. W. Henning will announce themselves for Ventura, Los Angeles, San Bernardino, San Diego and San Luis Obispo counties.

John H. Hegler, Grangers' Dairy Agent, will meet with the members of the various Granges in San Luis Obispo county as follows: With Cambria Grange on Thursday, March 25th; Moro Grange, Saturday, March 27th; San Luis Obispo Grange on Monday, 29th; Old Creek Grange on Wednesday, 31st; Arroyo Grande on Friday, April 2d, and will meet the San Luis County Council on Saturday, April 3d, at the usual place of their meetings.

Brothers Harding and G. C. Pearson at Yuba City, Saturday March 20th; N. Butte, Monday, March 22d; Sutter, Tuesday, March 23d; South Sutter, Wednesday, March 24th; Sheridan, Thursday, March 25th; Lincoln, Friday, March 26th; Roseville, Saturday, March 27th.

Sherman Island, Rio Vista and Meridian will be provided for and will receive timely notice.

Brothers J. B. Carrington and Thos. Upton at Stockton, Saturday, March 20th; Lathrop, Monday, March 22d; Castoria, Tuesday, March 23d; Atlanta, Wednesday, March 24th; Wildwood and Collegeville, Thursday, March 26th; Farmington, Friday, March 27th; Oakdale, Saturday, March 27th; Waterford, Monday, 29th.

Ceres, Modesto, Turlock, Merced, and Plainsburg will be notified by Brothers Cressey and Upton.

The foregoing covers the utmost possible ground which can now be reached by special

appointments, to be kept by the gentlemen whose services are available.

Special appointments, which may be made by Granges, and of which they give timely notice to the Secretary, will be kept by speakers to be designated by the Board. Masters and other officers of Granges will confer a great favor upon the Directors by drawing attention to the above appointments, and extending to our speakers the hospitalities and courtesies which are the well known characteristics of Grangers. The Board must also request all Patrons to bear in mind that appointments for speaking at all the Granges cannot be made; that the expenses incident to such a canvass would include all of the several Granges would involve such an expense as to materially diminish the funds which should be devoted to the business of the company and its employers, and that this consideration and the impropriety of over-taxing the kindness of our speakers, who give us their time, are the reasons, which we hope may be satisfactory to Patrons, which prevent a full canvass of all the Granges.

Therefore, the Board respectfully suggests to such Granges, as we can meet by these appointments, to invite such other Granges as we have been forced to leave without special appointments to meet with the Grange at which a meeting has been designated.

It is the belief of the Board that no request is needed to insure the giving of such notice by the Granges to members as will secure to our speakers good audiences. The importance of the subject on which these addresses will be made and the universal sympathy felt by Patrons with us in this work will doubtless suggest to the officers and members of each Grange the propriety of giving such notice. By order of the Board, WM. VANDERBILT, Sec'y.

March 12, 1875.

In Memoriam.

EDITORS PRESS:—The following resolutions were recently adopted by Riverside Grange.

WHEREAS, Through the command of Providence our late worthy Treasurer, Brother G. H. Clift, has been summoned from temporal to spiritual things—therefore,

Resolved, That the members of Riverside Grange, as an evidence of our appreciation of his merits, and regret that unavoidably he has been compelled to take his final departure from us, do tender to the family and friends of our departed worthy Brother the most sincere sympathy in this, our mutual hour of bereavement.

Resolved, That the members of this Grange wear the usual badge of mourning for thirty days.

Resolved, That one copy of these resolutions be forwarded to the afflicted family of Brother Clift, one sent to the *RURAL PRESS* for publication, and one put on the records of this Grange.

[Signed] G. W. GARCELLE, }
EDWIN HART, } Com. on Res.
C. E. PACKARD, }
G. W. GARCELLE, Sec.

Riverside, Cal., March 8.

In Memoriam.

A sister, of Bennett Valley Grange, writes, March 9, 1875: Bennett Valley has been called upon to pay their last respects to one of its Brother Patrons, J. H. Plank. We feel his loss very much. We needed his counsel. He was a real helper, and beloved by all who knew him. Being a charter member, he was made Secretary at the organization of the Grange, and re-elected at the annual meeting. He faithfully filled the office as long as his health would permit. He leaves a father, sister, and beloved mother. The latter will feel his loss especially, as he was always ready to lend a helping hand to aid her in all things and comfort her when in trouble. The sympathy of many friends is with her whose head is whitened with the frosts of many winters.

THE GRANGERS' BUSINESS ASSOCIATION.—We would again call the attention of subordinate Granges and all Patrons in California to the notice in another column of the appointment of speakers detailed by the Grangers' Business Association to meet with, and explain to the different Granges the purposes and plans of the organization. It is desirable that these meetings should be well attended. Patrons by being present will be able to learn all about the working of the business arm of the Grange. We understand the capital stock is being rapidly taken, and there is no doubt but that the united effort which will be made the coming week, will put the organization on a thorough working basis.

NEW SALEM AND FARMINGTON GRANGES.—The members of the above Granges held a meeting recently for the purpose of organizing a County Council for Tehama county. The questions of building a new narrow gauge railroad and the opening of the Sacramento river for the navigation of steamboats were discussed, and resolutions were passed heartily endorsing both projects. The members also pledged themselves to "patronize any opposition that will carry our freight for a fair and reasonable compensation."

MEETING OF SANTA CLARA COUNTY COUNCIL. EDITORS PRESS:—You will please give notice of our next meeting, which will be on the second Monday in April (12th), in the Grange hall in Santa Clara, at 1 p. m.

A. B. HUNTER, Sec'y pro tem.

FROM NEVADA.—We are informed that Paradise Grange, No. 5, Nevada, have incorporated and are preparing to build a hall.

From the Granges.

Sutter Mill Grange, El Dorado County.

EDITORS PRESS:—As I have not seen any notice of the progress and doings of Sutter Mill Grange in the *RURAL* for a long time past, I take this occasion to let our sisters and brothers throughout the State know through your valuable paper, that we have a little Grange up here in the old and "historic town of Coloma," where the first nugget was found, that is alive and at work in the good cause. We started less than a year ago with a full list of charter members, and have since doubled our number, with a fair prospect of ere long attaining a membership of one hundred or more, which we think pretty good for the foothills, with a community whose interests are divided between agriculture and mining. On Saturday, 27th ult., we graduated a class of thirteen new members, upon which occasion we had a harvest feast, long to be remembered by the participants therein, and we were honored by the presence of the Worthy Master and many of the members of the pioneer Grange of the Pacific coast—Pilot Hill, No. 1; also by the Worthy Masters and many of the members of the El Dorado and Placerville Granges. Over one hundred good sisters and brothers were seated at tables which were heavily laden with the good cheer prepared for the occasion; and prominently interspersed amongst the roast chickens and other viands too numerous to mention, were choice brands of the sparkling "nectar," from the celebrated cellars of our worthy brothers, Robt. Chalmers and Othick, situated within sight of the Grange; also some choice grapes, in fine order from the vineyard of brother E. Smith. Toasts, speeches, etc., enlivened the occasion, and joyousness prevailed throughout; and as the time of separation drew nigh, each one seemed to feel a regret thereat, and expressed a desire for a frequent return of such occasions. Such is the benign influence of our noble Order over those who, previous to becoming members thereof, were comparative strangers, and seemingly felt but little interest in one another. Our joyousness was somewhat marred on account of the illness of our worthy Ceres, the wife of our worthy Master; hence we were deprived of their good offices upon the occasion, which was universally regretted.

The weather is delightful; the rain of last week came just in time, and will doubtless insure a good hay crop, which is about all we care to sow grain for in this locality, though some good grain is raised here. Indications are now favorable for a bounteous fruit crop, which is our main dependence, and if realized will set most of our fruit growers on a sound footing.

In conclusion, I would say to all who are in search of comfortable homes, and a happy and contented community, and where the very best of fruit is grown in great abundance, and a healthy climate, this is the place.

I have extended this to an unusual length; but as we do not trouble you often, I trust we may be pardoned. Fraternally yours,
A GRANGER.

Coloma, March 10, 1875.

Danville Grange, Contra Costa County.

EDITORS PRESS:—We met for the first time in our new hall on the first Saturday in January, when our officers for the ensuing year were installed by Brother Inman, Master of Livermore Grange. The business of the Grange being disposed of, Brother Inman proceeded to address the Grange in regard to the proposed *Business Association of Grangers*. He handled the question in a masterly manner, and it was apparent to every one that he meant just what he said. This address was to the point—no meaningless phrases. He was terribly in earnest; and from the way the stock was subscribed for, one would suppose that he had infused some of his spirit into the members present. The thanks of the Grange were tendered to Brother Inman for his able address. We had our usual harvest feast yesterday, when quite a number of the Brothers and Sisters of Hayward were present, and participated. Everything passed off pleasantly and nothing appeared to mar our happiness.

RONDYS.

Danville, Contra Costa Co., Feb. 27th, 1875.

Rincon Grange.

EDITORS PRESS:—Our Grange is progressing finely, the officers were all installed on the night of the 14th of January last. Since our last quarterly returns we have taken in three new members and have a class of five more on the way. We are just now getting into real good working order. The Grange now is considering the propriety of having a threshing machine, an article greatly needed in this neighborhood. The prospects for a bountiful harvest is very flattering, and farmers are all in the best of spirits. JOHN TAYLOR, Sec'y.

Chino, San Bernardino county, March 1.

Cambria Grange, San Luis Obispo County.

EDITORS PRESS:—Our Grange is still alive, though the attendance is small, owing to rush of work. Our hearts are in the work so we cannot fail. The *PRESS* comes regularly a welcome visitor. If the Patrons of California do not sustain the only paper devoted entirely to their interest, then are they unworthy the cause they have espoused, and the name they bear.

MARY E. IVINS.

Cambria, March 1st, 1875.

Petaluma Grange.

EDITORS PRESS:—Petaluma Grange had a pleasant treat on the 13th inst. W. W. Chapman was elected Master vice George Hammond, resigned. Subjects of discussion were Interest, National Banks, Government Finances, Salary Grabs, Monopolies that ruin the producer and fortify the non-producer, and Subscription of Stock to the Business Association.

F. PARKER, Secretary.

P. S.—I noticed in the *PRESS*, a little too late to be of much use, that an appointment is made for speaking at our Grange on the 20th inst. If the *PRESS* were sewed and trimmed so that it could be opened in a few seconds like a book, it would be much handier. Several papers are done up in that style, and I like them very much; with that improvement, I think your subscribers would be much pleased. Can you afford it?

Fraternally, F. P.

[It would cost us some two thousand dollars for machinery to accomplish so desirable an object. We are in advance of most of our neighbors on this coast, in procuring machinery to fold and press our papers in the form in which we now send them out. In the Eastern cities one folding and pressing machine is often made to serve a dozen or more weekly papers at a trifle more cost than it would require to use it for a single journal. To fold, paste and trim our edition by hand, would make from one to two days delay in issuing it.—Eds.]

Mountain Grange.

EDITORS PRESS:—Mountain Grange No. 173, P. of H., had its officers installed on the 9th day of January, 1875, by our Worthy Deputy, J. D. Fowler. After the ceremony of installation, all partook of a bountiful feast, furnished and prepared by our lady patrons.

Our membership is gradually increasing, and embraces many heads of families that encourage the growth and welfare, not only of the order, but culture of the soil and interest for their brother farmers of this San Benito valley. Our Grange is located in San Benito county, in San Benito township, thirty miles from the nearest town. We have a total membership of forty-seven members, and a class of eight ready to take the first degree.

Our meetings are regular every second and fourth Saturday of the month, and sometimes an extra session is held. Many reside from one to twenty miles away. The social features of our order are necessarily neglected to some extent, in consequence of having degree work at every meeting since our organization.

I intended at our last meeting to find out how many subscribed for your valuable paper, but the rush of business being so great, I neglected it. You may expect to hear from us soon. Fraternally yours,

JOHN BROWN, Secretary.

Lower Lake Grange.

EDITORS PRESS:—Our Grange is getting along finely, though there is still room for improvement. Since we have "monopolized" most of the Grange material in this vicinity, our meetings are more interesting than when so much occupied in conferring degrees. We labor under the disadvantage of having to rent a hall, but, as well as another order, are thankful to Masonic brethren for that privilege. During an idle moment, while in session assembled, our village bard, H. W., penned the following to the Masonic Hall:

"Here Masons meet, in truth to greet
Each brother with a word of cheer;
Here Temp'ars try to kill Old Rye
And Brandy, Wine and Beer;
Here Grangers too, with good in view,
Are trying hard to stay
The tide of wrong that sweeps along
The poor from day to day."

If some one could tell us through your valuable paper how to proceed with a low state of funds to build and furnish a hall, the information would be thankfully received.

Crops are looking well in this section, but need rain.

LUCY S. WILSON,

Lower Lake, March 9, 1875. Secretary.

Hungry Hollow Grange, Yolo County.

EDITORS PRESS:—It has been a long time since I have seen anything in your valuable paper about this Grange, or about Hungry Hollow; I suppose there is some of your readers who think Hungry Hollow is some small canyon, but that is a mistaken idea. Hungry hollow is a valley nine miles long, north and south, by an average of six miles wide, east and west. It is bounded on the south by Cache creek, east and north by the foothills, and on the west by the Cache creek mountains, which are sometimes called the coast range of mountains. Hungry Hollow is a beautiful valley of some 50 odd miles of fine farming land, and is one of the healthiest valleys in this State. The facilities are good here for schools, there are three splendid schoolhouses in this valley. The number of children is about 110. There is a large amount of grain sown in this valley this winter, and a great deal of the grain is summer fallow and looks very fine. The beautiful valley lays 70 miles north of Mt. Diablo, which can be seen on a clear day with the naked eye. We have had a fine shower of rain to-day.

VIDE ET CREDE.

Hungry Hollow, March 2, 1875.

Riverside Grange.

EDITORS PRESS:—Our Grange, which barely held its own for one year, has recently received an impetus, and our number is nearly doubled, with a good degree of interest.

G. W. GARCELUE, Sec.

Riverside, Cal., March 8th.

Washington Grange, San Joaquin County.

EDITORS PRESS:—Our second harvest feast was held on the 13th inst. Seven members were fully received as P. of H. in our Order. The feast was then announced, and all marched to the tables. After the usual ceremonies, a free invitation was given the many guests to be seated, and when the tables were filled, many of the Order stood back and looked wistfully on, thinking it a long time for their turn, as many jokes were broke and kind feelings expressed for the hospitality manifested. The tables did not "groan" as I have heard of others doing, though they were heavily laden with tempting viands and apparent miniature Sierras—well some of the cakes looked as if they were just brought from the mountains, the sides being beautifully enclosed with wreaths; while the tops had the appearance of snow, thickly studded with transparent hailstones. We had not the courage to mar its beauty. We expect another "square meal" soon, as six members are advancing. We now number 38 members, besides the applicants, and prospects are brightening.

M. L. COOK, Sec'y.

March 15, 1875.

Panama Grange, No. 138.

Brother S. Baker, Secretary of the Panama Grange, writes: "Although our Grange has not been as prosperous as we had supposed it would be when it was organized over a year ago, still, we should not complain, as we have nearly doubled our numbers. This, with no hall to meet in, does very well for a country. The officers were installed March 5th.

Stockton Grange No. 70, P. of H.

The following resolutions were passed by the Stockton Grange:

Resolved, That the use of the name "Grange," or "Patrons of Husbandry," by any corporation, or individual, (connected with the Order or not,) for the purpose of carrying out any private scheme, or enterprise, is contrary to the spirit and principles of our Order, and should not be countenanced in any manner by members of the Order.

Resolved, That a copy of these resolutions be sent to the *PACIFIC RURAL PRESS* and *Stockton Independent* for publication, and also a copy be sent to every Grange in this county.

Stockton, March 6th, 1875.

Borden Grange, Fresno County.

A member of this Grange writes, March 8th: "Borden Grange has not prospered in every way as much as we could wish; but we hope to make a better showing this year than last."

Election of Officers.

*SANTA CLARA COUNTY COUNCIL.—H. M. Leonard, M.; J. W. Haskel, O.; Mrs. J. Knowles, L.; Willis Morrison, S.; Mrs. H. C. Paine, C.; J. A. Wilcox, Sec'y; H. E. Hills, T.; J. Holland, G. K. Trustees—C. Jones, L. P. Alexander, Francis Dresser. Yours fraternally, A. B. HUNTER, Sec'y. pro tem.

Industrial Items.

ARTICLES of incorporation were filed in the San Joaquin County Clerk's Office last week by the San Joaquin and Fresno water company. The purposes of the company are the construction and maintenance of a canal and other works to divert the water of the San Joaquin river, and convey it through the counties of Fresno, Merced, Stanislaus, San Joaquin and Contra Costa, for the purposes of agricultural transportation and mining.

WE LEARN from the *Visalia Delta* of the 11th inst., that artesian water has been struck in the Mussel Slough country, the water rising two feet above the surrounding country. The pipe is in tough clay, and when this is penetrated it is believed a strong flow of water will be the result.

CASTINGS for fifty box cars for the Northern Pacific narrow gauge railroad are being made at the Vallejo foundry. They include all the iron work except the wheels, which are obtained from the East.

MR. W. H. MARTIN, of this city, has gone to Kansas to escort a colony of about fifty families to this State. They have had an agent in the State for weeks hunting up a location, but it will not be fixed until the arrival of the colonists.

THE *Santa Cruz Sentinel* of the 13th says: The two foundries and two planing mills in Santa Cruz are busy turning out machinery and doing work for the two railroads now being constructed into town.

It is reported probable that a starch factory will be put up near Lomaes by another season, for which the enormous potato crop of that section will furnish staple.

It is predicted that the number of elegant residences erected in San Francisco during the year 1875 will exceed that of any previous year.

A COMPANY has been organized and a woolen mill is to be erected at Petaluma, and in running order by May.

THERE are very strong probabilities of Santa Cruz having an outlet by rail via San Mateo.

It is proposed to have a grand squirrel hunt in Big valley on Saturday next, says the *Lake county Bee*. Twenty-five of the best shots of the county have already been selected by Stonebreaker and Parrish, who will act as captains of the hunters. Those who kill the most squirrels are to be treated to a dinner by the defeated ones.

Agricultural Items.

THE Sherman Island overflow occasioned the destruction of a large area of grain, but as the water is receding the farmers are hopeful that they may yet grow a crop of potatoes the present season. A portion of the land will doubtless be drained in season to make a crop of hay. Above Mayberry slough the wheat crop never looked more promising. The grain tall and thick and will be considerably earlier than usual.

THE *Petaluma Argus*, of the 12th inst., says: Between five and seven thousand sacks of potatoes are now stored in the different warehouses in town. Last week over seven thousand sacks were shipped to San Francisco, an unusually large quantity for this time of the year. Farmers are at present hauling potatoes to town in moderate quantities. The price paid by dealers is \$1.50 per one hundred pounds.

EXPENSIVE LEASE.—Farm leasing in the Eastern States is generally resorted to by those who lack means to buy even the cheapest farms. Here it is otherwise. A farm in this State consisting of 20,000 acres has just been let for five years at an annual rental of \$40,000. The farm is stocked with 1,900 head of cattle, 100 horses, 50 mules and 1,500 hogs, costing the lessee, with crops, \$74,250.

THE contributions of wheat from the United States to the bread supply of Great Britain in 1874 constituted 55 per cent. of the whole imports, and those of Russia 13 per cent. The aggregate export of wheat and flour from the United States to Great Britain during the year exceeds an equivalent of 52,000,000 bushels.

REFERRING to the Stockton wheat market, the *Independent* says: It is estimated there are at least eight thousand tons of wheat still remaining in the warehouses of Stockton, two thousand tons of which have been sold for shipment. The market is dull at present, particularly so for wheat of an inferior quality.

A New irrigating district is soon to be formed in Los Angeles under the Bush irrigation law, which will include Anaheim and the surrounding country to the extent of 12,000 acres. The water will be brought from Santa Ana river. This will be the second district formed under the new law, and will bring in all about 26,000 acres under irrigation.

THIS is the way that trees grow in Los Angeles county, according to the *Los Angeles Express*, which says: "The eucalyptus trees at B. D. Wilson's park, Wilmington, are only one year old from the seed, and have attained a height ranging from eight to fifteen feet, and a very luxuriant growth of branches and foliage.

A REPORT from Sierra valley says the soil is in excellent condition for plowing, and farmers all over the valley are getting in their grain. Crops will depend entirely upon the spring rains. Unless there is a good supply of rain the hay and grain crops will be complete failures.

A GENTLEMAN who has an eye to the abundance of the earth, and who had his weather eye open while passing through green fields, says that more promising grain than is now growing on the Denniston Rancho was never seen in that locality.

ABOUT 15,000 acres of grain have been planted this season in the Borden settlement, Fresno county. Of this amount, Major Reading, Friedlander, Major Holmes and Mr. Hall have about 6,000 acres. Grain is looking as well as could be desired.

THE Sacramento Sugarbeet has all its beets sowed, and most of them are above ground. The area laid down this year to sugar beets, by this company, is larger than ever before; and they look for a better yield than usual.

THE Bluzome ranch was sold yesterday at Santa Rosa, by Sheriff Latapie, at auction, for \$20,000, the Bank of California being the purchaser. The ranch is a portion of the Casalamnyomi grant, recently patented.

SANTA ANITA RANCHO, one of the finest ranches in Los Angeles county, comprising an area of 8,500 acres, has been sold to E. J. Baldwin, of San Francisco, for \$200,000, cash.

THE grain-fields on all kinds of land in the vicinity of Marysville, Yuba county never looked more promising. Some of it is so stout that it will lodge before cutting time.

FARMERS in Borden settlement, Fresno county, have begun to irrigate their fields. They have planted this season about 15,000 acres of grain, and it is looking finely.

THE *San Mateo Gazette* is authority for the statement that in the San Pedro valley, near School House station, the potato blight is showing itself.

A BIG canal to drain the tule land in Big Meadows is talked of by the owners of swamp and overflowed land in that section.

BETWEEN five and seven thousand sacks of potatoes are now stored in the different warehouses in Petaluma.

TULE fires are now in order, the tules now being in the best condition for burning preparatory to cultivation.

NINE hundred and sixty-eight boxes of oranges were shipped from the Los Angeles depot Friday for San Francisco.

THE Buena Vista ditch company, of Kern county, have completed one mile of ditch, twelve feet wide at the bottom.

THE crops at Half-moon bay are most encouraging.



Causes of Domestic Unhappiness.

Various as are the sands on the sea shore are the causes of domestic unhappiness. In too many cases ending with the ending of the light on the domestic hearth. The principal cause, and the one I shall principally confine myself to, is the use and abuse of intoxicating beverages and the immoderate use of tobacco. My God, if man had the power to penetrate the evils resulting from the use of the above ingredients, the picture would so terrify the senses and the blood cast into the river Styx, to be engulfed in the depths of that fabled stream. What misery rises in that sparkling cup! What filth is engendered by that vile weed! And when they carry their polluted presence into the divine sanctuary of home they become truly execrable. The wife of finer sympathies must breathe the perfume. The child of tender years must suffer the choking sensation. The first lessons of life are learned under the debasing influence. You—a father commissioned by heaven to rear and educate young immortals—what of your stewardship? I am sorry to be obliged to ask the same question of some mothers—though thank God it is the exception—and not the rule. Remember life is made up of little acts, just as much as if every one was a large one, each and all leaving their impression on the same. For a father or mother to show by precept and example the use or abuse of stimulants or tobacco to the young and rising generation is an evil toward this and future generations. The moral effects are fearful, the physical is too palpable for illustration. Witness the demeanor of those who live by the strictest rule of sobriety and decorum. Contrast such a family with one whose hours are spent amongst the fumes of tobacco and intoxicating beverages.

The one is respected at home and abroad. The other shunned as a social fester on the body politic.

It would seem as if no warning voice of nature, no depths of moral depravity, no ruin to home and hearth, no lost affection, sweet as the breath of heaven can turn man from the depths of misery which the degrading cup and weed has cast upon him. The home circle is full of light houses, by which the traveler may steer clear of the quicksands of destruction.

I might dilate upon the many mortgages crushing the husbandman, whose initial beginnings were hatched while under narcotic influence or alcoholic stimulants. A continual use will bring on indifference to the rules of order and economy. It is like a small rill at the source, but soon the rill becomes an angry torrent, and the subject of its tyranny swept from the face of the earth.

If I could only breathe into the heart of every Granger or head of family, to abstain from the use of intoxicants, and the vile weed which is the handmaid of the former, thousands of happy homes would return thanksgivings for the whisper. Man has no enemy like either the one or the other, instead of life being a turmoil of selfish misery, and in many cases utter degradation. If these two articles were banished from our houses, our saloons, our statute books and from all our borders—when this takes place home will smile—as when Eden bloomed—before man's fall or earth was doomed. As it is, we meet it every day—see it around all corners—we feel its foisted breath, we see it rolled in death's filthiest garment. We cannot flee from it; we must meet it, fight it, wrestle the monster in his lair, and then die off without knowing that its fangs are a whit shortened. Grangers, stand up in thy strength for domestic peace and purity! Let us frown the monster from our midst, and show the world that we are capable of a great moral reformation as well as a social and financial reform. King is he who can truly govern himself; and by so doing he is in a condition to conduct the duties of the farm and fireside with judgment over the domestic hearth.

JOHN TAYLOR,

Mt. Pleasant, February 2, 1875.

HAPPY EVERY DAY.—Sidney Smith sent the following from a newspaper and preserved it for himself: "When you rise in the morning, form the resolution to make the day a happy one to a fellow creature. It is easily done; a left-off garment to the man who needs it; a kind word to the sorrowful; an encouraging expression to the striving—trifles in themselves as light as air—will do at least for the twenty-four hours. And if you are young, depend upon it, it will tell when you are old; and if you are old, rest assured it will send you gently and happily down the stream of time to eternity. By the most simple arithmetical sum, look at the result. If you send one person only happily through the day, that is three hundred and sixty-five in the course of a year. And suppose you live forty years only after you commence that course of medicine, you have made 14,600 persons happy—at all events for a time."

Children and Dogs.

"Dogs is healthy for children" say the old wives, and not without some foundation in fact. The influence of these lively and affectionate playmates of childhood is very happy; so much so that we have sometimes thought that a boy who has never had a pet dog has been cheated out of half the enjoyment and no small part of the moral culture of infancy. But dogs have bad tricks, and, unless properly trained, are apt to be anything but "healthy" for children. They express their affection in a very bad way. We know that it is a common opinion that there is something wonderfully wholesome about a dog's tongue, and that his natural habit of licking the objects of his affection is rather to be encouraged than repressed. Nevertheless one of the first requirements in a dog for a child's pet is that he be trained to emulate prudent humanity and restrain his tongue. It is not "healthy," whatever the old wives may say. This, setting aside the question of rabies altogether. A much more common affection of dogs is a tape worm, for whose development both men and dogs have to contribute. Its immature or cysticercal stage is spent in the human body, often causing great mischief; then it migrates to the dog, completes its development, and makes provision for a new crop to infest humanity, forming cysts or hollow tumors in various parts of the body. The full grown worm is the smallest tenia known, only about 1/4 of an inch in length. The embryo is often as small as 1/200 of an inch; yet, according to Coubold, death has been caused by a single individual lodged in the brain. At a late meeting of the Australian Microscopical Society, Mr. Sidney Gibbons, exhibited specimens recently taken from a human subject, and said there could be no doubt that they were frequently implanted in children as a consequence of allowing dogs to lick their hands and faces. It is a nasty practice at best, and a pet dog's first lesson should be to keep his tongue to himself.—Sci. American.

A Ten Thousand Dollar Daughter.

On a certain day, on a Pennsylvania railroad, a belle of a thriving Pennsylvania town, the daughter of a wealthy lumber merchant, was travelling in the same car with a shrewd old citizen of her native town and an agreeable gentleman from the West, who tells the story. The latter had been talking to the belle, but as the night drew on and the young lady grew drowsy, he gave up his seat to her and placed himself beside the somewhat cynical Pennsylvanian. The latter began conversation by pointing to a high mountain, past which they were whirling, and said:

"You see that mountain? Six or eight years ago it was covered with as fine a forest as ever grew, and worth ten thousand dollars and upward. Now, without a tree, covered with stumps, the land is scarcely worth a continental. The net produce of that mountain lies over there in that seat," and he pointed to the recumbent belle; "that is my calculation. It has just absorbed all of that lumber, which my father owned, to raise and educate the girl, pay for her clothes and jewelry, bring her out in society and maintain her there. Some of you young men, if you were given your choice between the mountain yonder, as it now stands, and the net produce on that seat, would take the net produce; but as for me, give me the stumps."

OWNING A HOME.—The strength of the American Republic is in the universal desire to own a house. It is moulding all the people, native and foreign, into one homogenous mass. The ownership of a home is something of which neither the Irish peasant nor the German laborer has, in his own country, any conception, but it is here the goal of his hopes and desires. Education comes next; it is a something the need of which is not felt until the adornments of home are thought of. This desire to own the roof under which one sleeps is distinctively an American characteristic, and seems by nature adapted to the growth which is raising us in importance in the scale of nations. It is the link which connects the man with the Government; it adds to his interest in the making and execution of the laws, and identifies him with the usages and customs of the people. It is this element which gives the people of Switzerland their unity and power, and the lack of it causes nine-tenths of the unrest in Ireland. No feeling is stronger than the attachments of home, and no nation whose people possess this as a common sentiment can lose its liberty.

THE INFANT.—A lovely child lay sleeping, the moonbeams kissed his forehead, and in every ray of light an angel sported. No wonder they should leave their Eden home to linger awhile on earth to gaze upon aught so lovely. Pure as the snow wreath which mantles the Alpine hills, or the lily with its bow decked with pearls, was this infant—sin had never touched it. Its little heart was far from guile as were the seraphs which looked upon his beauty. No—were the angels alone gazing; no, no, a fond mother watched it, and as the moonbeams played around its cheek she thought of the innocence which dwelt within the heart of her cherished infant.

"WOMAN is a delusion, madam!" exclaimed a crusty old bachelor to a witty young lady. "And man is always hugging some delusion or other," was the quick retort.

Hints For Young Mothers.

The three requisites for babies are plenty of sleep, plenty of food, plenty of flannel. The saying that man is a bundle of habits is true of babies as it is of grown children. If an infant is accustomed from its birth to sleep from six o'clock at night till daylight, the habit of early sleep will be formed, and the mother may have all her evenings to herself. If the baby sleeps all night, a long morning nap will naturally come about dinner time, after which the child, except when very young, should be kept awake till six o'clock. Perseverance in this routine will soon result in securing quiet evenings for both child and parent. Some mothers have a long season every morning, and every night, in getting the baby asleep. They rock them and sing till Morpheus enfolds them. With most children this is entirely unnecessary. An infant can be accustomed by a few days' training to go to sleep itself for a morning nap as well as for the longer rest at night. A mother has duties to herself as well as to her offspring. While she should exercise a constant care in securing its utmost physical comfort, she should secure rest and recreation for herself. In no other way can she keep fresh in feeling and buoyant in spirit. Nothing is so wearing as the unceasing tending of a fretful baby. Every means should be employed to aid the child in taking care of itself and giving as little trouble as possible. It may learn in babyhood to amuse itself with toys or by watching movements going on around it. Fashion as well as good sense required infants' dresses to be made with long sleeves and high in the neck. Fashion requires children of all ages to be warmly clad. Flannel should encase the whole body, with the exception of the head and hands. The fruitful cause of colic in infants is the nakedness of their necks and arms. Regularity in feeding is as important as either of the other requisites. Babies cry as often from being overfed or fed too frequently as from hunger. Let the mother obey the dictates of common sense in this matter and not force food into a baby's stomach for every little complaint it makes. Children of three and four years old need much more sleep than they usually have. For irritable and nervous children sleep is a specific, and it can be secured to them only by force of habit. Many light forms of disease may be cured by keeping a child in a uniform temperature and in quiet. Let young mothers experiment on these suggestions, and we are sure they will have many an hour in the nursery for reading and thought.

A FEMALE WARRIOR.—A curious case of assumption of sex was lately discovered in Paris. A pensioned officer, named Senkeisen, now nearly eighty years old, fell ill, and had to be taken to the Neckar Hospital. There the doctor in charge discovered that the officer belonged to the female sex. Her secret being thus detected, the *vieille de la vieille* no longer hesitated giving the story of her life. She was fourteen when she lost her father, a Bavarian Colonel. Her grandfather, General Baron Von Senkeisen, had the command of a Bavarian army corps. Bavaria was then the ally of France. By some unexplained whim this grandfather forced her to enlist in one of the regiments of his division. She advanced rapidly in the campaigns of Germany and Spain, and was wounded twice, and severely, at Waterloo. She was then admitted in the hospitals as an officer of the second class. In 1830 she took service again, and went to Algeria; in 1833 she obtained French naturalization and a pension. This woman has a glorious character to boast of, having received letters of congratulation on her valorous deeds from Marshals Berthier, Angereau, Senechal, and General Dapont, who was sentenced to death for having capitulated at Baylen with 40,000 men.

RATHER HOT.—At a dinner party in London last August, there were two sisters present, one a widow who had just emerged from her weeds, the other not long married, whose husband had lately gone to India for a short time. A young barrister present was deputed to take the widow into dinner. Unfortunately he was under the impression that his partner was the married lady whose husband had just arrived in India. The conversation between them commenced by the lady's remarking how extremely hot it was. "Yes, it is very hot," returned the young barrister. Then a happy thought suggested itself to him, and he added with a cheerful smile, "But not so hot as the place to which your husband has gone." The look with which the lady answered this "happy thought" will haunt that unhappy youth till his death.

NO SONGS HEARD THERE.—A recent traveler says: "What always impresses more than anything else in Egypt and Palestine has been the entire absence of cheerful and exhilarating music, especially from the children. You never hear them singing in the huts. I never heard a song that deserves the name in the streets or houses of Jerusalem. One heavy burden of voiceless sadness rests upon the forsaken land. The daughters of music have been brought low. 'The mirth of the tabret ceaseth, the noise of them that rejoice endeth; the joy of the harp ceaseth!'"

An elephant is 1,227,386 times larger than a flea, but yet there are women who growl at paying two shillings to visit a menagerie and will turn a feather bed over for half a day to hunt a flea.

Make Children Useful.

The energy which some children manifest in mischievous pranks may be made to subserve useful and instructive purposes. Little odds and ends of employment may be given them—work suited to their small capabilities may be assigned them—and under judicious direction and considerate encouragement their little heads and hands can accomplish much, and that gladly. The bright little ones who would "help" mama should not be repelled with a harsh word, but some simple task should be devised for their occupation, and some trifling thing—so very great to them—should be the reward of its performance.

As a general rule, give your children something to do. A daily employment of some sort will exercise their minds healthfully, and develop elements of usefulness and self-reliance which may prove inosculably valuable to their manhood and womanhood. Miserable is the plan urged by some that they "have not the time" to look after their children. No such pretext can divest them of the grave responsibilities which the having of children imposes. The laws of God and of humanity demand of parents the best care and training for their children they can bring into exercise. How many poor wretches there are, taxing society with their maintenance, who owe their worthlessness and sins to the negligence of their parents in developing and directing good natural endowments for lives of industry and independence! Large Firmness in a child is a good thing; it contributes to steadiness of thought and deed. Large Self-Esteem is desirable; in that it confers the sense of personal worth and dignity. Large Approbativeness is most serviceable in its restraining and stimulating ministrations. Large Destructiveness is a good heritage; under proper control it contributes to activity and achievement. Large Combativeness is a good quality; it contributes courage, boldness, and progression to the character. Large Acquisitiveness, rightly trained, supplements industry with economy and thrift. But such qualities in children need the guidance of a discreet parent. Mismanagement, neglect, easily lead to their perversion and the ruin of a life which, otherwise, might have been a splendid success.—*Annual of Phrenology.*

The Life to Come.

What does a man take with him when from the extreme verge of life he launches into what lies beyond? It looks as if he took nothing. Death seems to pass a sponge over all that has gone before. Be it the end, or be it a new beginning. It seems a total breaking off from all that life has hitherto consisted in. That is what makes it terrible.

But if we look at it truly, his past life is just the one thing that a man does take with him when he dies. He takes himself. And that self is the product of all his past experience and actions. As an oak bears in itself the result of every shower that through long years has freshened it, of every gale that has toughened it or stripped its bows of sunshine that has fed it and the drought that has parched it, so a man, when he stands at the end of life, is what he has been made by all his joys, and sufferings, and actions. That is what he takes into the other world—his own character.

The life to come and the life that now is, are part of one another. They are related. The man is not the same that the boy was, but what the day was, entered into the man as a part of him. The strength we gain by our victories this year, and the weakness into which we come by defeat, will be a part of us next year. So, there is not an act, not a word but casts its influence forward into the to-morrow that lies beyond death.

To-Morrow.

To-morrow may never come to us. We do not live in to-morrow. We cannot find it in any title deeds. The man who owns whole blocks of real estate and great ships on the sea does not own a single minute of to-morrow. To-morrow! It is a mysterious possibility not yet born. It lies under the seal of midnight, behind the veil of glittering constellations.

Enjoy the present, whatever it may be, and be not solicitous for the future; for if you take your foot from the present standing, and thrust it forward to to-morrow's event, you are in a restless condition. It is like refusing to quench your present thirst by fearing you will want to drink the next day. If to-morrow you should want, your sorrow would come time enough, though you do not hasten it. Let your trouble tarry till its own day comes. Enjoy blessings this day, if God sends them, and the evils of it bear patiently and sweetly, for this day is ours. We are dead to yesterday and not yet born to to-morrow.—*Jeremy Taylor.*

A woman in the *Woman's Journal* writes: "Girls in treating dissipated young men as equals do a wrong which they can scarcely realize. Such men should be made to feel that until they redeem themselves and walk with correctness and honor in the part of right, good people will stand aloof from them. Girls who respect themselves will not be seen with such young men, and will decline to receive them on the familiar footing of friendship. It is a mistaken friendship to poltice when caustic is needed, and I am inclined to think that a little sharp decision on the part of the girls of to-day would go far to correct the general looseness of the morality among young men."

A Profitable Wife.

I have been married twenty-two years. The first four years before I was married I began farming with two hundred and fifty acres, in Blue Grass region, Kentucky. I handled cattle, hogs, sheep and horses—principally the first two named—and lived, I thought, tolerably economically; spent none of my money for tobacco in any way, neither betting a cent or dissipating in any way, and yet at the end of four years I had little or no money. I then married a young lady of eighteen years of age—who had never done any housework or work of any kind except to make a portion of her own clothes. She had never made a shirt, drawers, pant, or waistcoat, or even sewed a stitch on a coat, and yet before we had been married a year she had made for me every one of the articles of clothing named, and knit numbers of pairs of socks for me—yes, and mended divers articles for me, not excepting an old hat or two. She had also made butter, sold eggs, chickens, and other fowls, and vegetables to the amount of near six hundred dollars in cash, at the end of the year, whereas, during the four years that I was single I had never sold five cents worth—besides making me purely happy and contented with my home. And so far as to making of money, we have made money clear of expenses ever since we have undertaken the farm, and she has made four hundred dollars every year except one, during the time, selling butter, eggs, and marketing of different kinds. My yearly expenses of fine clothing, etc., before I was married were more than my yearly expenses after I was married combined with the expense of my wife and children; and our farm has increased from two hundred acres; and I believe that if I had not married, it never would have increased but little if any; and I have never been absent from home six nights, when my wife was at home since we were married, and her cheeks kiss as sweetly to me as they did the morning after I was married.—*Ex.*

If I Had Leisure.

"If I had leisure, I would repair that weak place in my fence," said a farmer. He had none, however, and while drinking cider with a neighbor, the cows broke in and injured a prime piece of corn. He had leisure then to repair his fence, but it did not bring back his corn.

"If I had leisure," said a wheelwright, last winter, "I would alter my stove-pipe, for I know it is not safe." But he did not find time, and when his shop caught fire and burned down, he found leisure to build another.

"If I had leisure," said a mechanic, "I should have my work done in season." The man thinks his time has been all occupied, but he was not at work till after sunrise. He quit work at five o'clock, smoked a cigar after dinner, and spent two hours on the street talking nonsense with an idler.

"If I had leisure," said a merchant, "I would pay more attention to accounts." The chance is, my friend, if you had leisure, you would probably pay less attention to the matter than you do now. The thing lacking with hundreds of farmers who till the soil is no more leisure, but more resolution—the spirit to do—to do now. If the farmer who sees the fence in a poor condition would only act at once, how much might be saved. It would prevent breechy cattle creating quarrels among neighbors, that in many cases terminate in lawsuits, which take nearly all they are both worth to pay the lawyers.—*Annual of Phrenology.*

A BEAUTIFUL THOUGHT.—When the summer of youth is slowly wasting away on the night-fall of age, and the shadow of the path becomes deeper and deeper, and life wears to its close, it is pleasant to look through the vista of time upon the sorrows and felicities of our earlier years. If we have a home to shelter, and hearts to rejoice with us, and friends have gathered around our firesides; then the rough places of wayfaring will have been worn and smoothed away in the twilight of life, while the many dark spots we have passed through will grow brighter and more beautiful. Happy, indeed, are those whose intercourse with the world has not changed the tone of their holier feeling, or broken those musical chords of the heart, whose vibrations are so melodious, so tender, and so touching in the evening of their life.

STEP BY STEP.—Life is made up of little things. He who travels over a continent must go step by step. He who writes a book must do it sentence by sentence; he who learns a science must master it fact by fact—principle by principle. What is the happiness of our life made up of? Little courtesies, little kindnesses, pleasant words, genial smiles, a friendly letter, good wishes and good deeds. One in a million, once in a lifetime, may do a heroic action; but the little things that make up our life come every day and every hour.

THE TRUE THEORY.—Here is the true theory of marriage. Dr. Holland said: "Whenever any pure, true, good woman marries a man whom she loves, she gives herself to him. She belongs to him. He owns her as no other man on the face of the earth does or can." To which Mrs. Livermore assents, but adds: "Whenever any pure, true and good man marries a woman whom he loves, he gives himself to her. He belongs to her. She owns him as no other woman on the face of the earth can own him. That is my theory of marriage."

YOUNG FOLKS' COLUMN.

Dick's Watch.

Dear little Dick, curled up by the fire,
Sat watching the shadows come and go,
As the dancing flames leaped higher and higher,
Flooding the room with a mellow glow.

His chubby hand on his side was pressed,
And he turned for a moment a listening ear;
"Mother," cried he, "I've got a watch!
I can feel it ticking right under here!"

"Yes, Dick, 'tis a watch that God has made,
To mark your hours as they fly away;
He holds the key in his mighty hand,
And keeps it in order night and day.

"Should he put aside, the mystic key,
Or lay his hand on the tiny spring,
The wheels would stop, and your watch run down,
And lie in your bosom a lifeless thing."

He crept to my side and whispered soft,
While his baby voice had an awe-struck sound,
"I wish you would ask him, mother dear,
To be sure and remember to keep it wound!"

Letters to Boys—No. 8.

DEAR BOYS:—While stars, rings, crosses and diamonds, of purest whiteness are filling the air out of doors, I will take a seat by a good coal fire and write to you.

If you were to stand at the window, and look forward, you would think that thousands upon thousands of the smallest, whitest and softest of feathers had been turned away from the sky, and sent whirling and dancing down to the earth out of very pity. Do you ask "why out of pity?" Because a covering of beautiful snow looks better than the bare brown, frozen earth, and gray old rocks of New England. The New Hampshire boys are having fine sport this winter.

In this place, the skating has been good on the river, and I have seen the boys skating along the streets and side-walks, for they have been covered with ice. The skates are made of stout wood to fit the sole of the boot, and fastened with leather straps at the toes and ankle. A screw from the skate enters the boot heel, and iron points press into the front of the sole. A bar of steel two inches deep and less than one-half inch wide, runs the length of the skate through the center. All one has to stand on, is this narrow bar. One of this description lies before me. It comes to pass that those who put them on for the first time find the ice rapping them on the back of the head, and see more stars than they can count, whether there are any in the sky or not.

Sleds of every description are out for a race. Sleds old and new, large and small, unpainted, and every color in the rainbow.

'Dasher,' 'Clipper,' 'Racer,' 'Flyaway,' 'Lily,' 'Rose,' 'Bird' and 'Snowball'; and so on from 'Snow King' to 'Gen. Grant.' Away they go, and the rule seems to be, that the one who goes the fastest and makes the most noise, is the best fellow.

Among all my readers, is there one whose lips move to the tune of "Oh! wouldn't that be splendid." Well I expect it is; but I know of two boys who wish they had kept away from the ice. One (a member of our Sunday school) was sliding face downward on his sled, when he ran against a wall, and tore about half the skin from his face. And on Christmas evening, when so many happy girls and boys were receiving presents from loaded trees, a physician was called from our church, to set a broken jaw for a boy who had fallen on the ice, and not only broken his jaw, but injured his brain, so that they fear he will never recover. So you see it is not all splendid.

But I must not take up too much room in the "Children's Column." With best wishes for your happiness, I remain, your Sister,

JENNIE E. JAMESON.

New Market, N. H., Jan. 1875.

ALWAYS ON THE MARK.—Yes, always on the mark. It is possible even for boys, and if you are not on the mark while you are boys, you will not be when you have grown up to manhood. Every individual is more or less governed by habit, and if you cultivate the habit in youth of being punctual, it will be an easy matter to be always on the mark when you have grown up to assume the active duties of life. How frequently have we heard the remark made in reference to some particular individual,—"he is always late—he never keeps an appointment!" A man who is forever late, always behind the appointed time, will soon lose the confidence of the community, for they will correctly reason that he has but little regard for his word. Endeavor, then, while young, to cultivate the habit of punctuality; aim to incorporate it into your being as an indispensable element of character.

At a school at Wallsend, near Newcastle, England, the master asked a class of boys the meaning of the word "appetite," when, after a short pause, one little boy said: "I know, sir. When I'm eatin' I'm 'appy, and when I'm done I'm tight."

HARRY, after looking on while his new little sister cried at being washed and dressed the other day, turned away, saying: "If she screamed like that in heaven I don't wonder they sent her off."

GOOD HEALTH.

Insulated Beds.

An insulated bed is one set on some non-conductor of electricity, so the electricity cannot flow to and from it freely. Their usefulness is as yet a matter of experiment. Their value might be tested by invalids, at little expense, for an insulated bed can be made by placing the four feet on four strong glass tumbler. Dr. Wagenhol, of Columbus, Ohio, recently read an article on the subject before a medical society, detailing many cases of acute rheumatism which had been benefited by sleeping on an insulated bed. We quote:

"On December 25th, 1871, I was attacked with rheumatism of the ankle and knee joints in one limb, then the other. I treated myself actively by alkalies, opiates, etc., in the ordinary manner recognized by the profession as of most value in this disease. I was unable to leave my bed for three months, could not walk until April, 1872, and did not fully recover until the warm weather in June. On the 16th day of December I was again assailed by my tormentor, treated myself as before, and I thought myself happy that I was able to be out of my room in eight weeks, privileged to hobble around the streets of the city with the aid of a cane. Warm weather restored me to health, and during the summer and winter I attended to my professional duties. On February 16th, 1874, while I was congratulating myself that I should escape my annual attack, I was suddenly seized in the night time with severe pain in both ankles. In the morning I failed, after an ardent effort, to leave my bed. Fever was intense, as also the swelling of ankle and knee joints. A sense of coldness of the lower extremities existed, which was even more distressing than the pain caused by the swelling of the joints. This condition continued until the morning of the 18th. From the 16th to the 18th I was unable to sleep. On the morning of the 18th I insulated my bed by causing the legs of the bedstead to be placed in four glass tumblers. I fell into a profound sleep, waking on the morning of the 19th bathed in a profuse perspiration, without the aid of anodynes. I steadily improved, and in a few days was out of my room.

"This single case is of little consequence, but the Doctor gives a large number of others corroborating it. How much is due to insulation and how much to the expectation of a cure, we cannot tell.

The closing part of Dr. Wagenhol's paper is suggestive, and we quote it:

"One of the patients makes mention of the sensation of drowsiness which came over him by the prolonged use of the insulated bed. This I have noticed in several cases, and distinctly observed it in my own. Now the question is, do the effects of this form of treatment, which in comparison with our former modes, is simply marvelous, depend upon expectant attention? Is it another specimen of the wonderful power the mind has over the body, or does it depend upon changing the electric state of the body? It certainly deserves attention, as, in either case the patient is benefited, and this is the end of all therapeutics.

"I have in my possession several communications from gentlemen of worth and eminence in the profession, who fully corroborate my experience in the particulars set forth; and I am confident that if this subject, which I deem important to the profession as well as to the community, is properly tried and thoroughly investigated, much information will be gained and large beneficial results will be accomplished.

"We live to learn; as we learn we advance in knowledge, our information and attainments expand, and thus our usefulness is made felt in communities in which we reside, and our vigor and energy is undaunted, by reason of the good results we obtain."—*Herald of Health.*

A Cure for Lockjaw.

In the course of lectures recently delivered before the British Society of Arts, by Dr. Benjamin Richardson, the following important remarks were made upon nitrate of amyl:

One of these specimens—I mean the nitrate of amyl, has within the last few years obtained a remarkable importance, owing to its extraordinary action upon the body. A distinguished chemist, Professor Guthrie, while distilling over nitrate of amyl from amylic alcohol, observed that the vapor when inhaled quickened his circulation and made him feel as if he had been running. There was flushing of his face, rapid action of his heart, and breathlessness. In 1861-2 I made a careful and prolonged study of the action of this singular body, and discovered that it produced its effects by causing an extreme relaxation, first of the blood vessels and afterward of the muscular fibers of the body. To such an extent did this agent thus relax, I found it would overcome the tetanic spasm produced by strychnia; and having thus discovered its action, I ventured to propose its use for removing the spasm in some of the extremest spasmodic diseases. The results have more than realized my expectations. Under the influence of this agent, one of the most agonizing of known human maladies, called *angina pectoris*, has been brought under such control that the paroxysms have been regularly prevented; and in one instance at least altogether removed. Even tetanus, or lockjaw, has been subdued by it; and in two instances of an extreme kind, so effectively as to warrant the credit of what may be truly called a cure.

DOMESTIC ECONOMY.

LIVING TO EAT, AND EATING TO LIVE.—Eating is a necessity of life, but the spectacle presented at some tables when the family has assembled for a meal might well suggest the question, do these people know why they eat? To be sure no little knowledge is requisite if we would supply the wants of nature in the proper manner; but is there any hardship in informing one's self with respect to so important a matter as the preservation of a strong, healthy body? Is health, and its accessory ability to perform life's duties well, a minor consideration, quite inferior to a knowledge of arithmetic, or geography, or of the mechanics or music? An eminent English observer has said that "a man must live forty years before he knows how to eat." True enough according to the prevalent mode of gathering the knowledge of what is fit for our stomachs as we go along in life, thus making our system a sort of experimental laboratory for the analysis of all sorts of so-called pabulum. And how few survive forty years of constant experiments with their alimentary function.

The masses are yet quite ignorant of the philosophy of nutrition, and riot in their ignorance. The housewife may be skilled in the preparation of toothsome dishes, but very rarely knows what is suitable or unsuitable among her materials for the uses of the body. If the article "tastes good," that quality is generally a sufficient warrant for its appropriation.—*Annual of Phrenology.*

THE modern kitchen is the cooks fortress; from it drawing-room company is carefully and jealously excluded. In all families the children look upon the kitchen as a paradise of dainty devices. In some they are never allowed to enter; but in others the little missy is sometimes privileged to make a bit of paste into ducks and drakes, or to knead some dough into a cake for the doll's birthday. Such frivolities a modern cook sternly represses. She supposes the young ladies will want to make puddings next or to come down and try recipes out of "them rubbishy books." She has no notion of encouraging such pranks. A favor has to be made of leave to use her bowls and spoons, and the young officer just home from his regiment dare not venture into the sacred precinct to concoct a real Indian curry or a Mulligatawny pillow unless he has first ascertained that cook is in a good humor. Even the lady of the house is informed very plainly that after her morning visits she is not expected to disturb the quiet of the lower regions.

HOW TO COOK OATMEAL.—First, be sure to get new, fresh oatmeal, as if it becomes damp or old it is bitter. Put one quart of water into a tinned stew pan, salt sufficient to be palatable; stir in carefully so as not to have it lumpy, three or four handfuls of oatmeal. Put it over the fire and stir continually until it has swollen all it will, using care not to have it burn on the bottom. When it has swollen all it will, add more water, and then put the stew pan into a kettle of hot water and leave it cooking for several hours—the longer the better, as the longer it is cooked the softer and more jelly-like it becomes. Having the stew pan in another kettle of hot water prevents its burning on the bottom, and you are relieved from constant stirring. It is good with milk, syrup or sweetened milk, or even with butter alone.

SOMETHING NEW IN THE PRESERVATION OF FRUIT.—The following method for the preservation of fruit has been patented in England. The fruit is placed into a vertical vessel in layers, separated by layers of pulverized white sugar, and is then covered with alcohol of 80 degrees Gay Lussac. After 12 hours the closed vessel is inverted and the maceration allowed to continue from 12 to 72 hours, according to the nature of the fruit, which is then removed and allowed to drain and dry. About two pounds of sugar and two pounds of alcohol are recommended for four pounds of fruit.

RAISED CONNECTICUT DOUGHNUTS.—Heat a pint of milk just lukewarm, and stir into a small cup of melted lard and sifted flour, till it is a thick batter, add a small cup of domestic yeast, and keep it warm till the batter is light, then roll into it four beaten eggs, two cups of sugar worked free from lumps, a teaspoonful of salt, and two of cinnamon. When the whole is well mixed, knead in wheat flour until as stiff as biscuit dough. Set where it will keep warm, till of spongy lightness, then roll the dough out half an inch thick, and cut into cakes. Let them remain till light, then fry them in hot lard.

CRUSTED APPLE PUDDING.—Pare, core and stew slightly, two quarts of tart mellow apples, and place them in a pudding dish; then, to one and a half pints of wheat meal, add one gill of Zante currants, and boiling water enough to make a dough, stirring lightly until mixed; roll it out one-third of an inch thick, and spread over the apples. Bake it in a quick oven forty or fifty minutes, take out, reverse on a hot plate, mash the apples with a spoon, and sweeten, if desired; cut it in pieces like a pie, and serve warm, with some fresh sauce.

SHAKESPEARE CAKE.—Six cups of flour; one of sugar; one of rich cream; eight eggs.



PUBLISHED BY

DEWEY & CO.

A. T. DEWEY, W. B. EWER, G. H. STRONG, J. L. BOONE

PRINCIPAL EDITOR.....W. B. EWER, A. M.

Office, No. 221 Sansome street, Southeast corner of California street, where friends and patrons are invited to our Scientific Press, Patent Agency, Engraving and Printing establishment.

Subscriptions payable in advance.—For one year, \$4; six months, \$2.25; three months, \$1.25. Remittances by registered letters or P. O. orders at our risk.

Advertising Rates.—1 week, 1 month, 3 months, 1 year
Per line.....25 .80 \$2.90 \$5.00
One-half inch.....\$1.00 \$3.00 \$7.50 24.00
One inch.....2.00 5.00 14.00 40.00

No Quick Advertisements inserted in these columns.

GET UP CLUBS FOR THE RURAL PRESS.

OLD SUBSCRIBERS and other reliable persons are authorized to get up clubs of five or more subscribers for this paper at \$3 per annum for each name. Our terms for all subscribers are cash in advance. Postage will be prepaid by us after January 1st, 1874. The papers will be addressed singly to each individual. Regular subscription price \$4. Sample copies free. Let those who will work for the Rural Press in mind that they will confer a lasting benefit on new subscribers, besides improving their own talents by business practice. Try your hand and report at once. We offer all a chance. You do not know what can be done till you try!

SAN FRANCISCO:

Saturday, March 20, 1875.

TABLE OF CONTENTS.

GENERAL EDITORIALS.—Answer to Enquiries About Homes; Beet Sugar: A Rustic Shelter; The Place for those Boys and Girls; Fruit Dealers' Rules, 177; No Name Again; Butter for 1875; Alfalfa for Hog Feed, 184. Broadbooks' Excelsior Pruning Shears, 185.

ILLUSTRATIONS.—A Rustic Shelter; Ground Plan, 177. Economy of the Vegetable Kingdom; Broadbooks' Excelsior Pruning Shears, 185.

CORRESPONDENCE.—Trip to Mt. St. Helena and Vicinity; Mussel Slough Country, 178.

POULTRY YARD.—Carbolic Acid in Poultry Houses; Over-Feeding Choice Fowls; To Make Hens Lay, 178.

SHEEP AND WOOL.—American vs. English Breeds; The Wool Market, 178.

PATRONS OF HUSBANDRY.—Progress of the Patrons in California; New Granges; Meetings; Etc., 180-81.

HOME CIRCLE.—Causes of Domestic Happiness; Happy Every Day; Children and Dogs; A Ten Thousand Dollar Daughter; Owning a Home; The Infant; Hints for Young Mothers; A Female Warrior; Rather Hot; No Sonas Heard There; Make Children Useful; The Life to Come; To-Morrow, 182. A Profitable Wife; If I Had Leisure; A Beautiful Thought; Step by Step; The True Theory, 183.

YOUNG FOLKS' COLUMN.—Dick's Watch (Poetry); Letters to Boys—No. 8; Always on the Mark, 183.

GOOD HEALTH.—Insulated Beds; A Cure for Lockjaw, 183.

DOMESTIC ECONOMY.—Living to Eat, and Eating to Live; How to Cook Oatmeal; Something New in the Preservation of Fruit; Raised Connecticut Doughnuts; Crusted Apple Pudding, 183.

POPULAR LECTURES.—Economy of the Vegetable Kingdom, 184-5.

HORTICULTURE.—A Plea for Our Native Shrubs, 185.

AGRICULTURAL NOTES from various counties in California, 188.

MISCELLANEOUS.—The Report of the Geological Survey of Missouri; Innumerable Photographs, 178. Result of the Tree Planting Act; A New Preventive for the Effects of Bee-Stings; Physiology of Eggs; Improvements in Telegraphic Apparatus; Curious Facts About Sponges; Glove Manufacture; Effects of Poisons on Molluscs; Mode of Ascertaining the Various Kinds of Materials in Mixed Fabrics; Watered Embroid; Achievements by the Sand Blast; Eucalyptus Globulus; Interesting Investigation; New Pottery Glaze, 179.

Our Paper This Week.

Immigration—the leading subject of journalism at the present time—receives its due share of attention. We give another of those interesting and practical lectures on Economic Botany, by Professor Bessey, with a great variety of other subjects properly handled. For family reading, our Home Circle contains its usual wholesome feast. The Patrons of Husbandry will find their special department this week filled with fresh and varied matter. Carefully read this, an average number of our paper, and you will see why the Rural Press is so popular, and wherein lies its increasing influence.

ON FILE—"Anaheim and Vicinity," G. F. M.; "From Lakeside," C. W. C.; "Co-operation in Building New Homes," J. C. C.; "St. Helena and Vicinity," J. B. A. Just before going to press we received the following: "From Tulare County," W.; "In Memoriam," J. Q.; "From Walnut Creek Grange," Occasional; "De Air Shauke," W. P. E.; "Bennet Valley Grange," G. N. W.; "Plummer's New Fruit Dryer," J. T. G.; "From Lafayette," N. J.

RURAL PRESS SUPPLEMENT.—With the Rural Press of April 3d will be issued an eight-page supplement, among the contents of which will be the newly revised Grange directory. Every subscriber will receive a copy.

The hop yards of Puget sound, Washington Territory, are receiving orders from California for roots.

Butter for 1875.

There is no product of the farm that has held its own in price for the last ten years, or more, equal to butter. Within this period, there has been, we may safely say, nothing upon which the producer could so safely reckon his profits as on whatever amount of butter he could furnish. These profits, we are aware, have never been enormous; but they have always been fair, and a large portion of the time have been good. We have seen tight times among dairymen, but we never hear of downright panics among them, as we too often do among the producers of wheat, cotton, hops and tobacco. We have seen the butter makers of Central New York going about with as fine rolls of butter, as ever was or ever can be made, urging the same upon the people of the cities at 12½ cents per pound; but at the same time they could meet their pecuniary obligations, and now they can show a banking credit that is unsurpassed by any agricultural community in America; while their butter dairies are now run to their fullest capacity, their products finding ready sale at an average of about 28 cents per pound.

This case is given, not for any local interest which it possesses, but as a faithful exemplification of the history of the American butter dairy; and of the world's dairy, in fact. Such will be its history in California. We have endeavored on all suitable occasions to impress this idea upon the minds of the farming community of this coast. Those who embark in dairying cannot expect to pay for their farms with the profits of one season, as has been done in some instances of wheat growing; nor can they ever reckon on the large returns per acre that hops, tobacco and some other crops sometimes give; but on the other hand they will never meet with the overwhelming financial disasters that occasionally sweep over those other fields of agricultural enterprise. And even though there may be a season, or a succession of seasons, during which a dairy district is only able to hold its own financially, their land will be feeding itself, and becoming richer all the time; whereas, in some other departments of farming the land is becoming impoverished, even while the farmer is counting his supposed profits.

The present agricultural condition of this State, taken in connection with the general scarcity of butter throughout the United States, and in England also, should stimulate the farmers of California to begin at once to increase this product. In urging the enlargement of the dairy of the State we have reference more to butter than to cheese; first, because the want of the former is urgent, and second, because it is more within our reach.

In regard to the scarcity of butter in England, the London Farmer, of January 18th, contains the following: "Grave and wise butter factors in Tooley street assure us that the supply of butter this spring will be the smallest known for several years, when compared with the annually increasing demand; and that this important article of consumption will probably soon cost nearly, if not quite, 2s 6d per lb. This is a serious outlook for many persons, as butter is a necessary part of the daily dietary of Englishmen. We cannot expect butter cheap from France whilst 3 francs per lb. is paid for the best in Paris and other places; nor from America whilst it is worth more than ½ a dollar per lb. in large towns in the United States. In Canada, whence we usually receive large quantities, the markets are being swept by United States merchants of all the higher class butters. The Yankees are formidable competitors of ours, and are enabled to outbid us in the Canadian provinces, notwithstanding they have to contend with a duty of nearly 20s. the cwt., and we have only carriage to pay across the Atlantic at from £1 to £3 per ton. And as we depend so largely on foreign butter, it is somewhat disappointing to our urban population to find that at a time of home scarcity, there is also a diminution of produce in the countries on which we mainly depend to make up any deficiency in our own markets, and so keep prices down at a reasonable level to the consumer. And whilst we would not wish to create a panic, we still cannot but think that our contemporary, Punch, some time ago was perfectly correct when he mentioned 'the price of butter' as one of the items in his category of 'Rocks Ahead.'

Those best acquainted with the commercial points of the dairy subject, are of the opinion that the time is close at hand when a new outlet will be opened for any surplus that we may have. It is expected that the entire demand for dairy products in the West Indies and South America will be supplied from the United States.

The home butter trade is in a healthy condition. Reports from the Eastern dairies inform us that preparations are making for increasing the cheese product, to an extent that will probably supply the increased consumption. In some states 20 per cent. increase of the cheese production is anticipated. But we are assured that there will be little, if any increase in the production of butter.

There are legitimate reasons for this preponderance of cheese in the dairy increase of the East, but it is hardly worth our while to go into an explanation of them; but there are as legitimate reasons why the increase should be in favor of butter in our dairy, and it is essential that these should be explained here. In the first place the increase can be more immediate

in its inauguration and in its profits. No time is required for building factories, or to secure the confidence of capitalists or any body else, in order to insure the formation of stock companies or co-operative unions. In the second place it does not necessitate getting into debt. It calls for no increased outlay of money for dairy implements, and scarcely any for stock, even. Whatever changes are made in the farm stock should be made with this object as a basis. If this point is kept in view, season after season, controlling the purchases and "trades" that are made in farm stock, there will be an improvement in our dairy stock, which, though almost imperceptible in its course, will, in a few years add greatly to the wealth of the State.

To those of our farmers who are turning their attention dairywards, we would say, don't allow your heads to get turned with any notions about fancy butter and fancy prices. Our standard California butter is good enough. Whenever we have too much of it we can ship it to Eastern markets, where it has already achieved a reputation, and obtain good prices for it. There are a good many people who talk and write about "gilt edged butter" who probably never eat anything above the grade of common family butter, and had to spread even that pretty thin.

People would like to have cheese, but they must have butter. If the dairy resources of California were properly developed, butter could be cheapened so that we could any of us spread it much thicker than we now do, and the favorites of fortune could butter both sides of their bread. Let the good women of the country help to make the butter dairy a success, and cheese dairying will surely follow, under the factory system, and this will greatly modify the drudgery of dairy life.

Alfalfa for Hog Feed.

Great is alfalfa and the Rural Press is its prophet; though we are not disposed to spread this faith with the cimeter. It is now pretty generally conceded that this product is to be the main reliance of California for cattle, and we have endeavored to provide our readers with all available information on the subject. Of late, considerable interest has been manifested in regard to alfalfa as food for growing hogs. We have conversed with farmers who have given it a thorough trial in this connection, and who report the most satisfactory results. When swine are turned into a field of alfalfa they eat it clean and do not trample it as much as would be expected. They are extremely fond of it, and will leave most other kinds of feed if this is within their reach. When fed exclusively on alfalfa, hogs are apt to "sour," and it has been found that a mixture of some constipating food is needed for this purpose; the tulle root has proved to be extremely serviceable.

It is mostly in connection with the tule lands that we now speak of alfalfa as food, as the most direct evidence which we have obtained in this matter is from these localities. The method practiced by parties heard from, is to turn the hogs upon a field of alfalfa, and before filling themselves they are allowed to range over a piece of newly plowed tule land. Having ready access to the tule roots they soon eat sufficient to counteract the laxative nature of alfalfa. Swine thus managed are reported as making rapid growth and keeping in good condition.

This, it seems to us, is an important point gained in connection with the increase of the pork product of California. The system of keeping hogs on "nothing," through three quarters of the year, then feeding corn during the last quarter, so that their sides will measure six inches of clear fat, is now obsolete. What is wanted now is a hog of moderate size, small bone, and quiet habits and that is fit to kill at any age. People now want their pork with "a streak of fat and a streak of lean."

No Name Again.

It was only two weeks ago that we published a remonstrance against correspondents omitting or attaching fictitious signatures to their contributions to the Press; more especially those that contain any "local hits." Such points are objectionable in the best form in which they can be presented; and when they come in upon us from anonymous sources, savoring of local prejudices, they are particularly unpalatable. We are not disposed to favor either intolerance or railroad corruption; but if the residents of a town are dissatisfied with having their local postoffice in "a whisky shop," there is no propriety in their sending anonymous communications on the subject to journals published in distant cities; they should seek for a remedy nearer home. Or if certain men in their district are supposed to be corrupt or weak-kneed on the subject of local railroads, those who are disgusted at such conduct should not attempt to use an agricultural paper for a whipping-post.

We have said thus much for the special benefit of "P. H. M.," who sends a communication to the Press smacking of this offensive flavor. It is to be hoped, however, that others will see the point, and that they will refrain from all attempts to use this, or any other journal, as a cats-paw for raking their local fires.

POPULAR LECTURES.

Economy of the Vegetable Kingdom.

Eighth Lecture Delivered before the University of California College of Agriculture, on Thursday, January 28th, by Prof. C. E. BESSEY.

[Reported and Illustrated for the Rural Press.]

Spurgevents, Laurels and Olives.

The topic to-day is, first, the Spurgevents, the plants belonging to the order *Euphorbiaceae*. The order is to some extent represented here, so that probably you are somewhat familiar with its characteristics. It is one of the most extensive orders we have, numbering fully three thousand species, distributed in all climates. In the temperate countries they are herbaceous, in many cases very small plants growing to a height of four or five inches. In South and East Africa they have leafless, succulent stems, often rising to the height of trees, being very much in shape like the cactus, while in tropical and South America they become very large trees. Throughout the whole order there is a continuous milkiness in the juice. This juice is in many cases exceedingly poisonous, so that we may put down the order as a poisonous one. The plant of greatest importance is the one from which we derive our supply of India rubber or caoutchouc. It is a large tree, *Siphonia elastica*, growing to a height of eighty or one hundred feet; found in Brazil, Guiana and Central America. It abounds very largely in the islands found in the Amazon river. You know the Amazon river spreads out so that a wide portion of its islands and banks are at times covered with water. In obtaining the rubber, the natives begin just after the water has subsided. They cut into the tree, making great incisions into the sides of the stems, and from these there flows abundance of milky sap. This is collected in large vessels and dried. The usual method is to collect it on some large surface and dry it. The natives found it useful in making all sorts of articles, and so they would make monda for that purpose. Suppose they wanted to make a bottle; they would make a mould representing the inside of the bottle; they would then dip this mould in the liquid material at intervals, thus forming layer after layer, until the desired thickness is obtained; they would then break the mould and shake it out. Shoes were made in the same way. Even now, the rubber is brought to America very largely in shape of such things. Its black color is largely due to hauging in the smoke. If it was carefully prepared, it would be

Much Lighter Colored.

It is brought here to the United States, also to Great Britain, and manufactured in various forms. The first knowledge Europeans had of it was obtained at the time Columbus first discovered the continent. He found the natives used rubber balls, and various utensils of different kinds; but, until 1820, they made very little use of it but for erasing; from that time it got the name of India rubber. Priestly made the observation that it was useful. In 1820, India rubber clothing was manufactured from it. In 1842, it was hardened by vulcanizing it. Since that, all sorts of uses have been found for it, indeed there is scarcely an industry, scarcely an art, but that has very much to do with this vulcanized rubber. In your chemical works, you find it impossible to get on a day without this, in its vulcanized form. The fear is, it will

Become Extinct.

These natives go in there and cut and slash away at the trees; they take no pains to grow them, so that there is very great danger of their being entirely destroyed. Probably the best way to remedy this is to call the attention of governments to the subject. Great Britain has been memorialized. Our Government ought to be also. It could be grown on any of the islands lying within the tropics.

The box tree, *Buxus sempervirens*, is a native of Europe and also of Asia. It grows to the height of twenty to thirty feet, and attains a diameter of four, six, eight or ten inches. It very seldom grows larger than this. Its use is for manufacturing the finer mathematical instruments, and also bushing and works of the smaller kinds of machinery, also in engraving, because of the hardness and fineness of its wood. In engraving it is very much used, as it is fitted especially for this. Our supply comes almost entirely from the Mediterranean basin and from the region lying in the vicinity of the Black sea.

It Can Be Grown Here

Very readily, can be grown throughout almost all parts of the Southern United States. Its growth is slow; however, it should be introduced here. It is the same thing as the English box.

English box is only the dwarf variety, and as this grows very readily—being cultivated as a border plant—it is probable that the tree would do well here. In fact, our climate is very much like the climate in which the tree grows. The castor oil plant, *ricinus communis*. A large, herbaceous plant, native of the East Indies, now grown in almost all of the warmer climates; grown as far north as 38° to 40° in the United States; is grown now in portions of Missouri and also in portions of Illinois, and States lying southward. From its seed castor oil used largely in medicine is obtained by

pressure. In Central Europe it is grown for feeding silk-worms. The leaves are very large and there are a great many on each plant, so that a great deal of food is provided in this way for the worms.

There are a great many other plants belonging to this order which are of a good deal of importance, but I have selected some of the most valuable. I might have mentioned the *croton tiglium* of India, from which croton oil is obtained.

African teak is the product of *Oldfieldia Africana*, and is a very heavy, hard wood. It is found that it is best to use in constructing steamships, in building up the woodwork near the fires and near the boilers. It seems to stand a

High Degree of Heat

Without catching fire. Ought to be more largely used. It, however, comes from Africa, so that we probably cannot grow it here.

The laurel group, *Lauraceae*, is not a large family, numbering only about five hundred species. These are mostly evergreen trees, and are found in the temperate and tropical climates. Throughout the whole order there runs a sort of aromatic principle which in some cases is sufficiently concentrated to become medicinally valuable.

The order derives its name from the bay tree, or the laurel tree, as it is sometimes called; *Laurus nobilis*, a native of Europe. This is the bay, or the laurel that we read so much about in literature. It is a tree about forty or fifty feet in height, and has beautiful leaves, to some extent resembling the leaves of trees here. In olden times these leaves were used to crown heroes—now-a-days they are put to other uses. The testimony runs this way: They are used for flavoring custards and puddings, and for imparting a

Fictitious Flavor to Figs

When packed for shipping. Bay rum is not from that tree, but from one allied to it.

Cinnamon, *Cinnamomum Zeylanicum*, is a native evergreen tree of Ceylon, and is extensively cultivated on that island, also on the Malabar coast, and in Java and Cayenne, for the sake of the aromatic bark of its young branches.

It is a shrub tree; that is, it is very much inclined to send up a great many reed-like little stems, and they are selected for peeling when they are about three years old, and one-half inch to an inch in size. Workmen go along, run their knives down the sides of these stems, and the whole bark is stripped off. In a day or two the epidermis—corky and green layers—can be removed, so that only the older or inner fibers of the bark remain. This takes on a brown color, and is brought to market in the quill-like form in which it is arranged. In selecting, the outer bark is rejected in the true cinnamon. True cinnamon should be of a rich brown color; should be very thin, about as thick as four or five sheets of paper, not much thicker than that, and should be exceedingly fragrant.

Now, allied to this tree from which true cinnamon is obtained, we have two others—*C. aromaticum* and *C. cassia*, natives of Ceylon, from which, as well as from the older branches of the species already noticed, cassia bark—may be considered as a kind of inferior cinnamon—is obtained. This bark is thicker and has more of a bitterness and a pungency than the true cinnamon. Instead of occurring in long, quill like pieces, it is in the form of thick chips; as, instead of taking that great pains which they do with true cinnamon, they simply cut and slash away at it in about the same way we would take a drawing-knife and peel off the bark of an ordinary tree. It is used as a substitute for, and also to mix with, the true cinnamon. You go to any of the ordinary shops and call for cinnamon, you will find what is properly called cassia bark in it and some places it is found without any cinnamon at all. I have seen many specimens that seemed to be

Nothing but Cassia Bark.

Whenever you find cinnamon occurring in chip-like masses you may be sure it is not true cinnamon at all, but it is really cassia bark. Taking the British statistics, the amount annually consumed in England is some thirty to forty tons true cinnamon and about two hundred tons of this cassia bark which might be called false cinnamon. Cassia buds are derived from the last named species.

The camphor tree, *Camphora officinarum*, belongs to this order; is a native of China and Japan and is now grown very much on the island of Formosa. The wood is of considerable value. It is used in the manufacture of trunks, chests and other things where the fragrance is of some importance, and from the wood is also obtained the camphor that is found in the shops.

In order to obtain this, the wood is chopped up, thrown into water and subjected to heat; camphor being volatile, passes over and is condensed. It is then brought to this country and used for medicine. Clothes put into a trunk or chest made of camphor-wood, are almost always preserved from moths, as these insects seem not to like it.

The California laurel, *Oreodaphne Californica*, is our only representative of this order. It is possible, another representative one—a little shrubby one—may be found here. But this is, I understand, the only one giving value to the order here. The wood of this laurel is, as you know,

Quite Valuable.

I find that it has not been used as much as it might have been, or as much as it should be. It is considered sufficiently ornamental in England to be used in the gardens there quite considerably, and there they have introduced it under a different name, and I have little doubt,

but that you will find it before many years brought back from there and sold under that name to our people for a new plant. Of course it will do very well. It will do just as well to use the wild plant, however.

In the United States, east of the Rocky mountains, another tree, the *Sassafras*, (*Sassafras Officinalis*), is of some importance, as furnishing a very spicy bark which is supposed to be very valuable in medicine; it is used somewhat.

The last family that I call your attention to, is the

Olive Family,

Oleaceae, (see fig. 1). It is smaller than the preceding, numbering but a hundred and fifty species. They are all trees; or, if they are not trees, they are shrubs. We might say they are tree-like, natives of the temperate, northern hemisphere, and to a limited extent of the southern. The order is of importance, as furnishing us some valuable woods. First or probably most important is the European ash, (*Fraxinus Excelsior*), a large tree extensively planted in Europe. The wood is used wherever strength, lightness and hardness are desirable. Without any question this could be very profitably introduced into California. It would grow without any doubt, and as we are somewhat short of wood of that character, it would be well to see what could be done by way of introducing it. In the eastern United States, *Fraxinus Americana* seems to take its place. It is there called white ash, and is somewhat related to the European one. Its wood is equally valuable, and it is largely used for the insides of railroad and street cars. For any use where lightness and toughness are necessary, it is valuable. It is used very largely in the manufacture of useful agricultural implements, and when kept reasonably dry the wood is very durable also. This American species grows somewhat larger than the *Excelsior*, preferring the rich soils lying midway between the lowlands and uplands, and

Might be introduced here with advantage. But probably it could not be as well grown as the European, so I would advise the introduction of the *Excelsior* rather than the *Americana*.

In some parts of California occurs what is called Oregon ash, (*F. Oregona*). It is a tree attaining a diameter of from twelve inches upwards, found in Oregon and probably the northern portions of this State. I don't know whether it grows as far south as this or not.

I have here specimens from a small tree of it, also the curly form which seems to have been taken from a knot or something like that. I could not find any of the straight-grained timber in the collection. This is very largely used here in the city of San Francisco. I find that our manufacturers use it very extensively. They use it along with the *Americana* which they import from the Eastern States.

The name of the order is derived from the



Fig. 1. The Olive Branch.

olive, *Olea Europea*. It is a native probably of Western Asia. Its name would lead one to suppose it was a native of Europe, but that is not the case. It is, I think, grown to a limited extent in the southern portion of this State, somewhat in the Southern U. S., in the West India islands, but more extensively in the basin of the Mediterranean. From its fruit, which is a small, blue black, cherry-like fruit, is obtained the sweet olive oil. This fruit is gathered ripe, subjected to pressure for the purpose of extracting the oil. The wood of the tree is very hard, of a yellowish white color and is exceedingly durable. It is used in the manufacture of small implements and utensils in very nearly the same way that box-wood is used and can be used for very nearly the same purposes.

Manna, found in the shops, is the product of a species of ash, *Fraxinus arnus*, found in Southern Europe. Calling for manna at any of the druggists, you will be shown a very peculiar, waxy material which is the product of *Fraxinus arnus*. Upon making incisions into the tree the juice exudes and hardens, producing manna.

The order is of some little importance for its ornamental representatives. Of these we need only mention the fringe tree, grown extensively in Quebec; the lilac and the jessamine. Having gone over three groups, although I have not used up the hour by any means, I perhaps have given you material enough to work up for this time.

Broadbooks' Excelsior Pruning Shears.

We illustrate herewith a novel pruning shears, the feature of which is a cam-shaped blade, for giving a very powerful drawing cut.

Fig. 1 represents the shears partially open, showing how the drawing cut is secured. Fig. 2 is the wrench or lever, provided with a hook and stud that drop in perforations on the blade, Fig. 4. Fig. 3 is the other handle, with the blade turned back against the shank, forming, when used singly or without the lever wrench, a hatchet, or knife, for trimming small limbs, sprouts or shrubbery. The cam-shaped knife-blade is provided with a series of perforations to receive the hook and stud of the lever wrench. When the handles, Fig. 1, are brought toward each other, as is evident, the drawing cut is produced. The point of contact of the knife edge with the limb, where the power is to be applied to do the cutting, is inside the pivot or bolt that holds the blade. The shape of the hook, Fig. 3, is such as to

Fig. 2 Fig. 1 Fig. 3

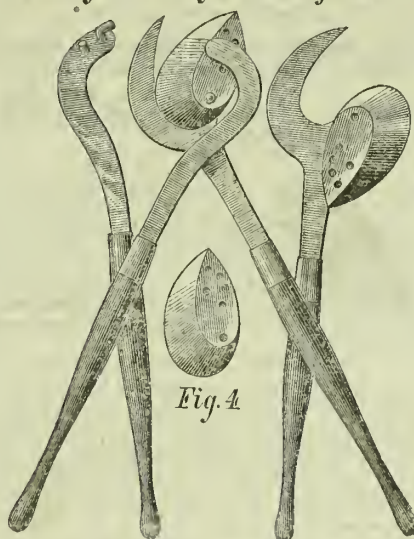


Fig. 4

Broadbooks' Excelsior Pruning Shears.

bring the limb to be cut directly under the fulcrum or pivot on which the blade operates. When the knife blade is applied it holds the limb firmly until cut, and prevents its slipping on the hook. Injury to the bark is prevented, also any crushing of the limbs, the ends being left smooth enough for grafting. In other pruning shears, where the power is applied outside of, and at a distance from the fulcrum or pivot which holds the two jaws together, slipping of the limb often occurs, thereby mangling the bark. The very long handles also employed frequently crush the branches. The handles of the shears represented in the engraving are only eighteen inches in length, so that the power is in the shears itself instead of in long handles.

The efficiency of the device is very remarkable, judging from specimens of its operation forwarded to us. Two fragments of boughs are before us—one 1½ inches, and the other 2½ inches in diameter, each of which has been divided with a clean, smooth cut, apparently at a single stroke. The wood is hard maple and the length of the cut is greater than the above diameters, owing to its being made at an angle.

For information relative to the additional advantages of the tool, and descriptive circulars, address Broadbooks & Co., Batavia, N. Y.

HORTICULTURE.

A Plea for Our Native Shrubs.

[Written for the RURAL PRESS.]

I am homesick for the hills on these bright mornings, when I remember the fragrance of purple ceanothus—our royal heather—and how the buds of the great snowy dogwood are swelling and azalies pushing their tender, blossom-laden shoots in the Napa hills, or nearer, in the ravines of Marin and around Diablo and Tamalpais. I smell the acacias and eucalypti, until I am a bushwoman in very thought, and am forced to return behind the curtains of my memory to recover any sense of naivety in my surroundings. So little is left us of the original Pacific flora, that I would fain plead for it before those who have means to create almost whatever they choose in the way of home adornments. If I were rich enough I would have many a piece of cañon drapery transplanted and set in appropriate relations to its neighbors—my garden should be something more than an asylum for different nationalities; if I had even a few acres, with water and irregularity of surface, I would manage to wander from country to country—within a few rods of my own door.

Shade and dampness are indispensable to some of the finest California varieties; but there are many ravines around Oakland, and of course everywhere else in the foothills where the azalia, the calycanthus and spiraea, would thrive if carefully planted and protected from washing by spring rains. In preparing for them, I should choose a bank for slope with a northern or western aspect, dig a deep hole and throw a few stones into the bottom, covering over thick with the surface soil. I should

oversee the transplanting myself, going to the nearest haunt of azalias, vaccinium, etc. (which for bay people is back of Saucelito). I should take a couple of men, with pick axes and shovels, with empty sacks and cordage, and begin by selecting my plants on the steepest bank I could find. With the pick I would have the stones removed (it almost always happens that cañon plants grow among loose stones), and then slowly lift the plants, shaking off as little of the earth as possible. If there was any brook or other moss to be had, I should pack them in it, otherwise I would have wet shavings or some saw dust, for the roots of wild flowers must never see the sun.

I would get the plants into the holes as soon as possible, scraping all the surface earth and rotten leaves around the roots, and working them in, moistening as I went along. Let the largest roots run down the bank, as they do naturally. Let a few stones crop out among the roots. When the hole is nearly filled, and the earth lightly pressed, put a bag of cocoanut fiber or other light mulch over the roots, keep all down with stones and never touch the place afterwards, except to renew the plants or their coverings. By imitating Nature's own methods in this way, many a bank of laurel and rhododendron is made to blossom as the rose in the rural residences along the Hudson river. *Calycanthus occidentalis*, or the sweet scented shrub, with large purple brown flowers; azalia *occidentalis*, the white azalia, rhododendron *Californicum*, *vaccinium parvifolium*, *photinia arbutifolia*, our peerless red berried holly, are among the more valuable species. We have two fine spires growing in the foothills, with several still finer in the Sierra Nevada. Six species of ceanothus, Garry's, Fremontia, California, Pickeringia, the Chemisal, will bear open sunshine, neglect and dust. Let no one say, "we tried the purple ceanothus, and it failed." There was a beautiful hedge of ceanothus along a roadside near Fruitvale. This plant, which loves the hill side, and rejoices in perfect drainage, had evidently made good growth, before the raising and perfecting of the road had left the water standing upon its roots. Then it perished according to law, and was cremated. Wild plants will not bear to be trodden under foot, nor do they like rakes and hoes. They must be loved and let alone judiciously and then they are like the "kingdom" of which they are a part—coming to perfection not "with observation," but by the silent ministrations of unseen influences and powers.

JEANNE C. CABER.

A Feast for St. Patrick's Day.

EDITORS PRESS:—At the time I sent you, a little after Thanksgiving Day, a box of Beuné Clairgeau, of my own raising, I promised to send you, about St. Patrick's Day, another in voice, but of my winter pears. So, to-day, for I will not wait to do it until the pears be ripe, I have the pleasure of sending you a box of pears, of the two fine varieties, viz: Bergamotte and Royale d'hiver.

Of all the pear varieties imported by me from France, I consider Bergamotte as the very best, being so juicy, sweet and highly flavored; and what a flavor! That's what you will see for yourselves. Royale d'hiver has got the name in Europe of being one of the very best varieties. It is true that this pear is very juicy, sweet enough flavored, and a first-class keeper, ripening generally in April, as it is the case with Bergamotte, but the latter beats it for its flavor.

Both pears are of a medium size, in ordinary seasons larger than those I am sending you; and if they were not any larger last year it was due to the trees being too young, and so much laden with fruit. A curious thing with the Bergamotte pear is to get a little blackish on one side before getting ripe. I wrapped into yellow paper two such as samples.

Likely you will have to wait two or three weeks before they are fit to eat; although some might ripen before that time. Apropos, people generally and wrongfully to see when a pear is ripe, squeeze it with their thumb right

Into the Side,

While it ought to be done close to the stem where any mark or bruise left on the fruit whether ripe or not, will not show much, or damage the pear.

Your engraving in a late RURAL of the cherry, known as the Great Bigarreau of Mezel is

Strikingly Correct and Natural.

I have the variety of cherry grafted at six feet from the ground on the body of the European wild cherry, and I found your engraving to be a perfect likeness of it.

In the hope that the fruit I am sending you will reach San Francisco in good condition, I remain yours very truly, FELIX GILLET, Nevada City, March 11, 1875.

[The above invoice arrived in superb condition, and in due time to be eaten on St. Patrick's Day. The pears were properly divided around, and a good many expert lips were smacked over them; the unanimous verdict being that they were guilty of being the nicest thing of the season. Mr. Gillet was, however, slightly mistaken in his reckoning when he supposed that the Bergamotte pear would not be ripe in less than two or three weeks from the time of shipping. On "St. Patrick's Day in the Morning" they were thoroughly ripe. Probably the ripening process was quickened by moving.

We shall place this matter upon record among the many favors received from our esteemed friend and contributor.—EBS. PRESS.]

BREEDERS' DIRECTORY.

PURCHASERS OF STOCK WILL FIND IN THIS DIRECTORY THE NAMES OF SOME OF THE MOST RELIABLE BREEDERS. OUR RATES: Six lines or less inserted in this directory at 50 cts a line per month, payable quarterly.

CATTLE.

R. ASHBURNER, Baden Station, San Mateo Co., Cal., breeder of Short horn cattle. Pure Bred Bulls for sale, from cows of choice milking strains.

J. BREWSTER, Gait Station, Sacramento Co., Cal., breeder of Short-Horn Cattle.

J. D. CARR, Gahlan, Monterey Co., Cal., breeder of Trotting Horses, Short-Horn Cattle, Thoroughbred Spanish Merino Sheep and Swine.

A. MAILLAIRD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.

W. L. OVERHISER, Stockton, San Joaquin Co., Cal., breeder of Short-Horn Cattle and Berkshire Swine.

PAGE BROTHERS, 304 Davis street, San Francisco, (or Cotate Ranch, near Petaluma, Sonoma Co.): Breeders of Short-Horns and their Grades.

STANTON & POWERS, Sacramento, Cal. Breeders of Jersey Heifers and Bull Calves at low rates. Address L. C. Powers, Sacramento, Cal.

MOSES WICK, Oroville, Butte Co., Cal., breeder of Short-Horn Cattle. Young bulls for sale.

SHEEP AND GOATS.

MRS. ROBERT BLACOW, Centerville, near Niles Station, Alameda Co., Cal. Pure-Blooded French Merino Sheep for sale.

THOS. BUTTERFIELD & SONS., Hollister, San Benito, Cal. Importers and breeders of Angora Goats and Sheep.

N. GILMORE, El Dorado, El Dorado Co., Cal., Importer and breeder of Angora Goats.

LANDRUM & RODGERS, Watsonville, Santa Cruz County. Pure-Bred Angora Goats and Cotswold Sheep for sale.

SEVERANCE & PEET, Niles, Alameda Co., Cal., breeders of Thoroughbred Spanish Merino Sheep.

A. G. STONESIEFER, Hill's Ferry, Stanislaus Co., Cal., breeder of Pure-Blooded French Merino Sheep.

L. M. SHIPPEE, Stockton, Cal. Importer and Breeder of Spanish Merino Sheep, Durham Cattle and Essex Swine.

POULTRY.

GEO. B. BAYLEY, Cor. 16th and Castro streets, Oakland, Cal. Imported Brahmas and other choice Fowls for sale.

ALBERT E. BURBANK, 43 and 44 California Market, San Francisco, importer and breeder of Fancy Fowls, Pigeons, Rabbits, etc.

M. EYRE, Napa. Bronze Turkeys, Emden Geese, Choice Fowls, Pigeons, Rabbits, Ferrets.

Mrs. L. E. McMAHAN, Dixon, Solano Co., Cal. Bronze Turkeys now ready for sale from the best imported stock; also eight varieties of choice Chickens; Eggs in season can be purchased very reasonably.

Mrs. L. J. WATKINS, Santa Clara. Premium Fowls. White Leghorn, S. S. Hamburg, Game Bantams, and Aylesbury Ducks. Also, Eggs. 2178-34

Poultry Breeders.

S. H. COOK,

BREEDER OF

CHOICE LIGHT AND DARK BRAHMAS,

B. B. R. Game Bantams,

Mammoth Bronze Turkeys,

TOULOUSE, BREMEN AND AFRICAN GEESE,

ROUEN AND MUSCOVY DUCKS.

Some choice Light and Dark Brahmas for sale Also, Bronze Turkeys. Address

S. H. COOK,

McDonald's, Washington Co., Pa. Send for Price-List.

EDGORTH POULTRY YARDS.

R. F. SHANNON,

Breeder of

Light and Dark Brahmas, Silver Duckwing and Black Breasted Red Game Bantams.

P. O. Box 563. PITTSBURGH, PA. Light Brahma Eggs, \$3, gold; Dark Brahma Eggs, \$5; Bantams' Eggs, \$3. Orders received for Pigeons to be delivered in the Fall. At Pittsburgh Show, January, 1875, on 4 coops fowls and 8 coops pigeons, won 6 first, 2 second, 1 third and 3 special.

E. M. Hively's Poultry Yards,

YOUNGSTOWN, OHIO.

20 Varieties Land and Water Fowls,

-ALSO-

PIGEONS AND EGGS IN SEASON.

Correspondence Solicited.

J. S. BEANER,

BREEDER OF

WHITE LEGHORNS.

My fowls are from stock that took the Special Premiums at the Boston Poultry Show in 1873 and 1874 Also at Pittsburgh this year. Eggs \$3 per setting. My P. O. address is Rochester, Beaver County, Pa. Correspondence Solicited.

J. S. HALVERSTADT & CO.,

Breeders and Shippers of

HIGH CLASS POULTRY

Embracing all

THE LEADING VARIETIES,

LEETONIA, OHIO.

Chicken Eggs, \$3; Turkey Eggs, \$5; Wild Geese Eggs, \$5. Letters of inquiry promptly answered. Descriptive Circulars and Price Lists sent on application.



Woodland Poultry Yards.

W. J. PRATHER, - Proprietor.

PRICE LIST.

EGGS PER DOZEN.	FOWLS PER TRIO.
Light and Dark Brahmas.....\$3.00	\$15 to \$25
Buff and Partridge Cochins.....5.00	15 to 25
White Cochins.....5.00	15 to 25
White Polands.....6.00	15 to 25
Houdans.....4.00	15 to 25
S. and G. Spangled Hamburgs.....6.00	15 to 25
White Leghorns.....4.00	12 to 20
Brown Leghorns.....6.00	15 to 25
Brown Old English.....6.00	12 to 15
Golden Seabright Bantams.....5.00	PER PAIR.
Bronze Turkeys.....8.00	\$30
Rouen Ducks.....4.00	10
Black Cayuga Ducks.....4.00	10
Aylesbury Ducks.....4.00	10

R. H. PECK,

BREEDER AND SHIPPER OF

Fancy Poultry and Eggs,

From Pure and Imported Stocks.

Having been very successful as an exhibitor, I solicit patronage. Address, with stamps, R. H. PECK, Earlville, Portage County, Ohio.

OAKDALE POULTRY YARDS.

SATISFACTION GUARANTEED.

Light Brahmas, Dark Brahmas, Buff Cochins,

BRONZE TURKEYS, AYLESBURY AND ROUEN DUCKS.

A. A. MILLER,

Oakdale Station, Allegheny Co., Pa.

Correspondence Solicited.



LOOK!

ALBERT E. BURBANK, Importer and Breeder of Fancy Fowls, Pigeons, Rabbits, etc. Also Eggs for hatching from the finest of imported stock. Eggs and Fowls at reduced prices. Send for Price List.

ALBERT E. BURBANK, 178-3m 43 & 44 Cal. Market S.F.

WHITE LEGHORNS.

I make these fowls a specialty, and have spared no pains or trouble in procuring stock from the finest strains in the United States, and now offer eggs for hatching at Eastern prices from the finest fowls on the Pacific coast. They are small, early, non-setters and very hardy, and for eggs are without a rival, being almost constant layers, and are truly styled the "farmer's fowl." Eggs, \$3 per dozen, (13) or six dozen for \$15. Securely packed to carry any distance, and delivered to the express on receipt of price. Cash to accompany order and orders taken in rotation.

W. J. HUNT.

Sebastopol, Sonoma county, Cal.

T. A. WINFIELD,

Hubbard, Ohio.

Breeder of CHOICE POULTRY, BRAHMAS, COCHINS, BLACK AND RED GAMES,

GAME BANTAMS, HAMBURGHS AND POLISH.

Also, Choice collection of Fancy Pigeons. Send for Price-List. Eggs for sale in season, from \$3 to \$6 currency.

C. B. ELBEN.

I make a specialty of

Fine Light Brahmas,

AYLESBURY AND CALL DUCKS

BLACK AFRICAN BANTAMS, &c.

Send for my new Catalogue and Price List.

C. B. ELBEN, Pittsburgh, Pa.

Lands and Homes for Sale.

FOR SALE.

HOMESTEAD AND FRUIT ORCHARD

About thirty-five miles from Stockton, containing three acres of land, a good house of eight rooms, good well, etc. Over two hundred fruit trees all in fine bearing order; such as Peach, Pear, Apricot, Apple, Plum, Figs, Oranges. A fine chance and a good market. Price, \$1,800. Title perfect. Apply to

GEO. W. CHAPIN,

434 Montgomery street, S. F., or this Office.

NEWARK LAND COMPANY,

San Francisco Bay, Alameda Co., Cal.

Title Perfect. Incorporated.

The NEWARK LAND COMPANY is now assuming shape; the Guarantee Fund paid in. This Company will be prepared in March to take 3,000 people by steamboat and railroad to their town and lands in one excursion, which will be advertised. By reference to the Coast Survey Chart it will be seen that at Potrero Point, in front of Newark, the deep water comes all the way through the channel from the Pacific, with the C. P. R. running in a direct line through Livermore Pass, making this the connecting point between all parts of the United States, and by deep water to all parts of the globe and the greatest manufacturing point on the Bay of San Francisco—plenty of water, good climate, excellent soil and easy communication. This land will be sold at auction in April, in acres and lots. This company will commence active operations in building, etc., soon. For all information, circulars, maps and subscription, apply at the office of the company, 405 1/2 California street, basement, opposite Bank of California, San Francisco.

CHAS. R. PETERS, Manager.

FOR SALE.

In the Riverside, New England and Santa Ana Colonies, in the valley of the Santa Ana river, San Bernardino county, California, twenty thousand (20,000) acres of clean, rich, level, valley land, with an abundance of water for irrigation. There is no better land in the State for the orange and all other semi-tropical fruits, and no finer climate in the world. Inquire of W. T. SAYWARD, 420 Montgomery street, San Francisco; S. C. EVANS, Fort Wayne, Indiana; C. I. HUTCHINSON, 314 California street, San Francisco; L. UPSON, General Agent, Riverside, San Bernardino county, Cal.

CALISTOGA

REAL ESTATE COMPANY.

Calistoga, with a population of about 800 persons, is a village watering place at the head of the valley of Napa, in California. It is four hours' travel north of San Francisco by steamboat and rail.

Its shipping port is Vallejo, on the bay of San Francisco, forty miles distant by rail. It lies at the head of the most charming valley in the State.

THE BEAUTIES OF NAPA.

In traversing this thirty-seven miles of fertile dale, the eye never wearies. If one ascends the sides of the leafy mountains that bound the valley on either side, whether looking up the valley or down, and from whatever point of view, the scene is one of ravishing beauty.

Mounting the summit of St. Helena, which towers over all, far to the east the snowy Nevada's bound the view; and to the west spreads the Pacific ocean, with its winged ships and its blue horizon. To the north are the vast forests of Mendocino, its stately trees, turned to shrubbery and Clear Lake in its pride of expanse dwindled to a mill dam.

THE WARM SPRINGS.

From the beauties of Calistoga we turn to its other attractions. The estate covers 2,000 acres of fertile land. Its warm springs are crowded with invalids, who flock to its healing waters, and who return cured of their rheumatism, their dyspepsia, their torpid livers and their tender kidneys. The medicinal elements of the hot springs are principally iron, magnesia and sulphur. In this climate, the season of watering places is prolonged.

THE SURROUNDINGS.

By consulting a map it will be apparent that Calistoga is destined to become a commercial town of importance. It is the center to which converge innumerable highways leading to many of the richest cultivated valleys of California.

INDUSTRIAL ENTERPRISES.

A new industry is now being introduced at the head of the valley of Napa, which will give easy employment to all the boys and girls, and contingently it will support other new industries. It is but the beginning of many others. Three miles below Calistoga is selected as the site of a large factory for saving and canning fruits and vegetables; test now go to waste, and encouraging the production of more. In no part of California can these healthful elements of human food be cultivated more cheaply or more abundantly. Considering the depth of its rich soil, its prolonged season, and the extraordinary vegetable growth in this country, one acre may be considered equal to three elsewhere this industry is carried on in the Atlantic States. If irrigation be wanted, artesian waterflow may surely be found all along the valley, for it is backed by mountain ranges full of living waters.

MINES:

GOLD AND SILVER AND QUICKSILVER.

Calistoga is the center also of a great mountain range rich in mines of cinnabar and silver. Already its furnaces are producing mercury, and the product is increasing yearly. A number of valuable mines are now being profitably developed in the region around the base of Mt. St. Helena, at Pine Flat, on the Great Geysers road, and near Billie's Mill, on the Clear Lake road. All of these are from ten to fifteen miles beyond Calistoga, to which point their products come, and from which their supplies are carried. The deposits of cinnabar occur in well defined veins, and as they are now being scientifically developed they bid fair to rival in productiveness the celebrated mines of New Almaden.

CALISTOGA REAL ESTATE CO.

The splendid property above described, containing 2,082 acres, divided into town lots, suburban lots, country seats, hotel property and farm tracts, has been bought by the above named company, and is now offered for sale to the public.

The Capital Stock of the Company is \$1,000,000,

Divided into 20,000 Shares of \$50 Each.

The sale of a certain number of shares has been authorized by the Board at the rate of

Twenty-five Cents on the Dollar, Making 12.50 Per Share.

By an arrangement between the former owner and the present company, no portion of this land or the proceeds of its sale, is consumed by expenses or in even the smallest degree diverted from the use and benefit of the stockholder.

Whoever buys Stock in the Company receives his pro rata share of this property, with its Crops and Rents in the meantime, without one cent of deduction for expenses of any kind, even including Taxes. And this, too, no matter how valuable the property shall become.

Unlike the homestead schemes which have heretofore attracted our people, this plan gives homes and interests in and adjoining a town already built; where trade and growth are already assured, and where daily increase gives promise of greatly added values to all its property. It is a division of this ripened heritage that is now offered to the subscribers.

TRUSTEES:

E. W. BURR,

President Savings and Loan Society.

C. HARTSON,

President Bank of Napa.

B. FRISBIE,

President Vallejo Commercial Bank.

JULIUS WETZLAR,

Pres. Capital Savings Bank, Sacramento.

COLONEL J. P. JACKSON,

San Francisco.

WILLIAM H. MARTIN,

GENERAL AGENT,

Cor. Webb & California Sts., San Francisco.

NINE FINE FARMS FOR SALE.

Near Middletown, Lake county, containing respectively 1600, 1100, 600, 300, 200, 130 and 80 acres. The most of these places contain as fine land as there is in California, and the home market averages twenty per cent. higher than San Francisco. When we take into consideration the quality of the soil, certainty of crops, the market caused by the development of mines and the Mineral Springs, the climate and privileges of schools and religious society, we are satisfied that no such inducements can be offered in any other part of the State, to those desiring to purchase land.

Having examined all these places personally, we can give a minute description of each. Apply to

JOSEPH PETTIT,

or WM. GORDON, No. 215 Kearny Street, Up Stairs. Ring the Bell. 3v9-tf



5,500 ACRES

Of the best portion of the old NOMELOCKE RESERVATION, in Tehama County, for sale very low; only five dollars per acre; one-third down, one-third in one year and one-third in two years, with interest at one per cent per month. Will be sold all together or in two parcels. This is one of the finest tracts of grazing land in Northern California; is abundantly watered by numerous perpetual springs and has two miles of the Elder Creek, a clear mountain stream. Its grass never fails from drought, and is of the best quality for sheep and has no clover hurt. 800 acres of level plow land; timber for posts, fuel, etc. Enquire of ALLEN WILCOX, Los Angeles, or F. B. WASHINGTON on the tract, twenty miles west of Tehama.

A GOOD BARGAIN.

\$500 will buy a good, pre-emption claim of 160 acres in Monterey County, with a good Dwelling House that cost more than that amount, situated one-half a mile from the Los Angeles Stage Road, and about the same distance from the line of the Southern Pacific Railroad. Apply to

MRS. ROWLANDSON,

On the Premises, San Antonio, Cal.

For Bleaching or Washing In Cold or Warm Water.

FALKINBURGH & CO'S

GRANGER SOAP

HAS NO EQUAL.

Don't fail to give it a trial, and be assured of a saving of money, time and labor. It speaks for itself. Warranted to accomplish more and do greater execution than any other soap. It is pressed, wrapped and perfumed.

ONCE USED, ALWAYS USED.

Sold by the principal Grocers throughout the country. Manufactured by

FALKINBURGH & CO.,

Oregon St., below Front, bet. Washington and Jackson, San Francisco, Cal. 4v9-10p

ARMES & DALLAM,

WHOLESALE DEALERS IN

WOOD AND WILLOW WARE

Baskets, Brushes and Twines,

Clothes Wringers,

Doty's Washing Machines,

AND

GENERAL HOUSE FURNISHING GOODS

And Manufacturers of

BROOMS, PAILS, TUBS, WASHBOARDS,

DASH,

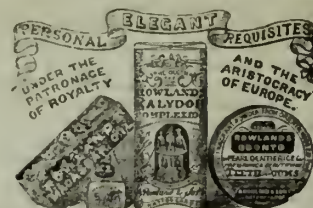
CYLINDER,

THERMOMETER,

AND SQUARE BOX

CHURNS,

215 and 217 Sacramento St., San Francisco.



Rowlands' Macassar Oil.

Preserves, strengthens, and beautifies the human hair; makes it grow thickly on bald places, and eradicates scurf and dandruff; has been in use all over the world for the last seventy-five years. ROWLANDS' ESSENCE OF TYRE changed or grey hair to a permanent brown or black. Sold everywhere by all druggists, chemists, and patent medicine dealers. Ask for Rowlands' articles, of 20, Hatton Garden, London, and avoid imitations.

ALEX. BUSWELL,

BOOK BINDER, PAPER RULER

AND BLANK BOOK MANUFACTURER.

521 Clay Street, S. F.

Blank Books Ruled, Printed and Bound to Order

Geo. W. Chapin, Real Estate Agent, 434 Montgomery St., San Francisco, buys and sells Ranches in all parts of the State. City Real Estate exchanged for Country Property. MONEY LOANED. Post Office Box 1180

Nurserymen.

Established 1853.

Stocks for Nurserymen.

Plum Seedlings, Mirobolan, the best French stock, does not sucker. \$50 per 1000
Apple Seedlings. 10 per 1000
Pear Seedlings. 10 per 1000
Cherry Seedlings, Mazzard. 12 per 1000
Walnut Seedlings, Mahaleb. 20 per 1000
Walnuts, English, 4 to 6 feet. 15 per 100
Cork Elm, best Elm, 4 to 6 feet. 15 per 100
Blue Gum or Eucalyptus, in variety. 5 to 10 per 100
Magnolia Grandiflora. LARGE STOCK
Magnolia Acuminata. 2 50 per doz.
Magnolia Tripetala. 2 50 per doz.
Golden Arborvita. 2 50 per doz.
Crataegus Arbutifolia. 2 50 per doz.
Swedish Juniper. 2 50 per doz.
Irish Juniper. 2 50 per doz.
Heath-leaved Arborvita. 2 50 per doz.
Heath, Mediterranean. 2 50 per doz.
Laurustinus, 6 to 12 in. 2 50 per doz.
Making the growth of Oranges and Lemons a specialty, I have imported from all sources the best known varieties, and now offer five thousand Grafted Trees properly worked and twice transplanted at \$18 per dozen. Grafted oranges by the 100 or 1,000 at prices on application. The amateur in want of large PALMS, large AURICARIAS, large CAMELIAS and large TREE FERNS, a good stock on hand; also the usual large stock of fruit and ornamental trees.

BERNARD S. FOX.

San Jose, Cal.

THOS. MEHERIN, Agent, 516 Battery Street, San Francisco. 21vs-3

KELSEY'S NURSERIES,

OAKLAND, - - - - - CAL.

Established 1852.

More largely stocked this year than any previous year. Embracing all and every kind of

FRUIT, DECIDUOUS, ORNAMENTAL AND

FLOWERING TREES AND

PLANTS, ETC.

Send for Catalogue and Price List free on application.

W. F. KELSEY, Prop.

Fruit, Shade and Ornamental

EVERGREEN TREES

-AND-

Plants for Sale.

At the old stand, corner Oregon and Battery streets, directly opposite Post Office, San Francisco.

I NOW OFFER FOR SALE

The Largest and Best Collection of Fruit, Shade and Evergreen Trees and Plants ever offered in this market, and at Reduced Prices.

Persons laying out new grounds would do well to call and examine our stock before purchasing elsewhere.

ORDERS FROM THE COUNTRY

Promptly attended to and packed with great care. A large stock of Cypress, Pines and Blue Gums for sale very low. Send for Price Catalogue.

Agent for B. S. Fox's Nurseries, San Jose. Address

THOMAS MEHERIN,

P. O. Box, 722, 516 Battery St., S. F.

1852. 1875.

ESTABLISHED IN 1852.

THE STOCKTON NURSERY

I have for sale for the ensuing season a Large and Well Grown Stock of All Varieties of

FRUIT TREES,

SHADE,

ORNAMENTAL

and

EVERGREEN TREES,

GREENHOUSE PLANTS, AUSTRALIAN GUMS, SHRUBS, ROSES, BULBS, PALMS.

Send for Catalogue.

W. B. WEST, Stockton, Cal.

ALMOND TREES.

35,000 Brier's Languedoc Almond Trees, one and two years old from the bud. This is the only Almond planted on a large scale, being hardy, late blooming, beautiful tree. It bears the second year from planting. The Almond is large and sweet with soft shell. Also, two year old Peach and English Walnut trees. Liberal terms to the trade and persons planting large orchards. Send orders to

W. W. BRIER,

21vs-3m Centerville, Alameda Co., Cal.

Metropolitan Nurseries,

Lombard Street,

Between Polk & Larkin Streets, at the Terminus of the Clay Street Hill Railroad.

MILLER & SIEVERS, PROPRIETORS.

FLORAL AND SEED DEPOT,

NO. 27 POST STREET, San Francisco.

Our stock of plants, comprising a most selected collection of Flowering and Ornamental Plants for the garden and the conservatory.

ROSES, over 200 varieties.

PINKS, 100 varieties.

DAHLIAS, 60 varieties.

PALMS, 40 varieties.

FERNS, 100 varieties.

ORANGES & LEMONS, 30 varieties

Our assortment of Flowering Bulbs is complete. Always on hand a choice and fresh lot of

TREE, SHRUB and FLOWER SEEDS.

OUT FLOWERS, BOUQUETS, FUNERAL WREATHS and FLORAL DECORATIONS furnished at short notice and on reasonable terms.

Orders from any part of the country promptly filled.

Eucalyptus globules, (Blue Gum) seed, fresh invoice \$15.00 per pound.

New catalogue now ready, gratis on application.

J. ROCK'S NURSERIES,

San Jose, California.

We offer this season a Complete Stock of

FRUIT AND ORNAMENTAL TREES,

SMALL FRUITS AND PLANTS.

The attention of Dealers, Nurserymen and Planters is invited to our Large Stock of Fruit Trees.

All Leading Market Varieties are grown in large quantities. To all those purchasing largely we will make a Liberal Discount.

Catalogues FREE on application.

23-v8-1f JOHN ROCK, San Jose, Cal

PEPPER'S NURSERIES.

(Established in 1858.) PETALUMA, CAL.

Green Houses and Tree Depot corner Washington and Liberty streets.

4 Green Houses. 3,000 feet of Glass. Fruit Trees a Specialty.

We offer for sale at lowest market rates a general assortment of Fruit and Shade trees, small Fruits, Vines etc. Evergreen trees and Shrubs in great variety. Green House, Conservatory and Bedding Plants, Roses, etc. We are now ready, Nov. 1st, to fill orders for trees and plants. Catalogue and price list furnished on application.

Address, W. H. & G. B. PEPPER, 19vs-1f Petaluma, Sonoma Co., Cal.

SUPERIOR FRUIT TREES

TRUE TO NAME.

A fine collection of Evergreen and Deciduous Trees. Australian Gum Trees in variety, by the hundred or thousand. Monterey Cypress in quantities and sizes to suit all. Orange and Lemon Trees at reduced prices. A general variety of Nursery stock.

Also, Rhubarb and Asparagus roots.

T. CORLEY,

18vs-29-1f 315 Washington Street, S. F.

KING'S NURSERY,

Twenty-fifth St., bet. Telegraph & Broadway OAKLAND, CAL.

Fruit, Shade and Evergreen Trees, Shrubs, Roses, Etc. Persons laying out new grounds would do well to call and examine our stock before purchasing elsewhere. A large stock of EUCALYPTUS, including BLUE GUM Pines and OYPRESS from six inches to twelve feet high. Acacias in Variety; Young Stock for Nurserymen; Pines and Cypress; Three Thousand Magnolia Grandiflora from six inches to five feet high; Camelia Japonica; Gardenia Cape Jessamine; Araucarias in Variety, at Lowest Rates. Orders attended to. Address, M. KING, Nurseryman, 3vs-3m Oakland, Cal.

PEACHES, APRICOTS AND PLUMS

are specialties at the Vacaville Nursery, Solano Co., Cal. Alexander's Early, Turner and Peento in bud, 50 cents each. Bsatrice, Louise, Rivers' Early, Lord Palmerston Lady Palmerston, Prince of Wales, Princess of Wales, Picquet's Late, Lady Parham, Italian Dwarf, Golden Dwarf, Bloodleaved and many other varieties of new Peaches in bud, at 25 cents each; Trees of Alexander's Early, \$1 each. Beatrice, Plowden, Freemason and a general assortment of the leading varieties, 25 cents each; Apricots, Plums, Apples, Pears, Cherries, Almonds, Figs, Olives, Pomegranates and including most of the leading varieties of fruit for sale at low prices. D. E. Hough, Vacaville, Solano Co., Cal.

NO THORNS TO SCRATCH.

Hoosac Thornless Blackberry.

Quality and Productiveness unequalled. Hardy. Never has winter killed. One plant by mail 50c; six plants, \$2.25; 12 plants \$4.00. Full history, plants and testimonials, free to all. Address FRANK FORD, Ravenna, O. Discount to Grangers and dealers on large orders.

TREES, Etc.

We offer for Spring, 1875, an unusually large stock of well-grown, thrifty

Standard and Dwarf Fruit Trees; Grape Vines, Small Fruits; Ornamental Trees, Shrubs, Roses; New and Rare Fruit and Ornamental Trees; Evergreens and Bulbous Roots; New and Rare Green and Hot-house Plants.

Small parcels forwarded by mail when desired.

Prompt Attention Given to all Inquiries. Descriptive and Illustrated Price Catalogues sent, prepaid, on receipt of stamps, as follows:

No. 1—Fruits, 10c. No. 2—Ornamental Trees, 10c. No. 3—Greenhouse, 10c. No. 4—Wholesale, Free.

Established in 1840. Address,

ELLWANGER & BARRY,

Mount Hope Nurseries, ROCHESTER, N. Y.

F. LUDEMANN.

RUD. MICHELSEN.

PACIFIC NURSERY,

Baker St., Between Lombard and Chestnut, San Francisco, Cal.

P. O. Box 475.

We offer this Season a Large and Complete Selection of Well Grown

EVERGREEN AND DECIDUOUS TREES AND SHRUBS, FLOWERING AND ORNAMENTAL PLANTS

At very reasonable Prices. Our Descriptive Catalogue of Evergreens and Deciduous Trees and Shrubs, and our Wholesale Trade List (For Dealers and Nurserymen) will be sent on application. All Orders promptly filled. F. LUDEMANN & CO.

BELLEVUE NURSERY,

Telegraph Avenue, Oakland.

WE OFFER FOR SALE THE PRESENT SEASON A LARGE ASSORTMENT OF

Ornamental Trees and Shrubs

OF BEST TRIED VARIETIES.

Many fine specimens of good size can be seen on the grounds to select from. Choice collections (true to name) put up for those starting a garden. Street cars pass every fifteen minutes.

3vs-1f

S. NOLAN.

Camellias.

We offer a large stock of these plants at low rates, ranging from 50 cts. to 1.25, according to size. They are unusually healthy and vigorous, and embrace the best white and colored sorts. Prices of the different sizes will be forwarded on application, as well as the Descriptive Catalogue. In ordering, please advise as to the mode of shipment.

We offer also Chinese Azaleas, Gardenias, etc., as well as the best and most rare DECIDUOUS and EVERGREEN

TREES AND SHRUBS.

R. B. PARSONS & CO.,

FLUSHING, NEW YORK.



BAY NURSERIES

and Seed Store.

Established 1852.

P. O. Box 331.

OAKLAND, CAL.

An immense collection of Evergreen Trees, Shrubz and Flowering Plants, wholesale and retail. I invite inspection. Catalogues on application.

JAMES HUTCHISON, Prop.

Thos. A. Garey's

Semi-Tropical Nurseries.

LOS ANGELOS, CAL.

Forty varieties of the Citrus family of semi-tropical trees, including many rare and beautiful, as well as useful and profitable kinds.

Grafted and Budded Orange Trees a specialty. Trees packed to arrive in good order. Priced Catalogue sent free. Address me P. O. Box, 523, Los Angeles city, Cal.

23vs-6m

THOS. A. GAREY.

HOP ROOTS FOR SALE.

I have a lot of choice HOP ROOTS, and also healthy BLACKBERRY SETS for sale at LOWEST RATES. Orders may be addressed through DEWEY & CO., of the Rural Press, San Francisco; ROBT. WILLIAMSON, Capital Nurseries, Sacramento; or to me,

24vs-3m

CALVERT T. BIRD, San Jose, Cal.

Pomona Nursery.

One hundred acres in small fruits. Largest and best varieties. Plants by mail. Send for illustrated catalogue (32 pages) telling what and how to plant, with 36 years experience.

WM. FARRY, Cinnaminson, N. J.

FOR SALE.

10,000 Acres Grazing Land—San Luis Obispo County. Title, U. S. Patent. Apply to MOODY & FARISH, 210 Davis street.

BLOOMINGTON NURSERY, Bloomington, Ill.—F. KRONIX. Spring lists free, or the set of four catalogues post free for twenty cents.

Seedsman.

1875. Established 1857. 1875.

Capital Nursery and Seed House

W. R. STRONG and ROBERT WILLIAMSON, Proprietors' having united their interests in the Seed and Tree business, offer to the public the largest and finest growth of both Seeds and Trees ever offered to the California public, of their own production, and also from the largest and most reliable houses of the Eastern States and Europe, all of which we offer as low as Eastern Dealers.

TREES. TREES. TREES.

Fruit, Shade, Ornamental, Evergreen, etc., raised in our Nurseries of the very best varieties. Dealers and Growers furnished at very lowest rates. Among our numerous varieties we call especial attention to BRIGGS' RED MAY PEACH, the earliest known, large, handsome of excellent flavor and good shipper.

SEEDS. SEEDS. SEEDS.

Vegetable, Flower, Field and Tree Seeds, and Flowering Bulbs and Plants.

100,000 pounds Finest Quality California ALFALFA, RED and WHITE CLOVER, KENTUCKY BLUE GRASS, RYE GRASS, ORCHARD GRASS, VERNAL GRASS, MESQUITE GRASS, TIMOTHY, RED-TOP GRASS, and every other Grass adapted to the Pacific States and Territories.

All the finer qualities of our Seeds will be forwarded by mail (post-paid) to customers at Catalogue rates, on receipt of money, which can be sent by postal orders or registered letters, or express, at our risk.

CATALOGUES AND PRICE LISTS on application, and forwarded by mail.

WAREHOUSE, 8 and 10 J Street. NURSERIES, U Street, SACRAMENTO CITY. TREE YARD, I street, next to Library Building.

W. R. STRONG & CO.

D.M. FERRY & CO'S
NEW ILLUSTRATED
DESCRIPTIVE
AND PRICED
SEED ANNUAL
Will be MAILED FREE to all applicants. This is one of the largest and most comprehensive Catalogues published; contains 216 pages, over 300 fine engravings, and gives full descriptions of Vegetable and Flower Seeds, Bedding Plants, Roses, &c., and is invaluable to Farmer, Gardener, and Florist. Address, D. M. FERRY & CO., Seedsmen and Florists, DETROIT, MICH.

POISON! POISON

WAKELEE'S PATENTED

Granulated Squirrel Exterminator.

A NEW AND MOST DESTRUCTIVE POISON FOR THE WORST PEST OF CALIFORNIA.

For years the farmers of the Pacific Coast have been spending money in experimenting to find a safe, cheap and efficient way of ridding their grain fields of their worst enemy, THE SQUIRRELS, which destroy Millions of Dollars' worth of grain every year; and unless a strong and combined effort is made to kill them off, they will become more numerous every year.

Wakelee's Granulated Squirrel Exterminator

Is just the thing the farmers of California have been looking for. It is SURE DEATH. One or two grains of it will kill a Squirrel so quick that if it is five feet from his hole it dies before it gets there. The Poison is put up dry and in granular form, and easily handled; in one pound tins at \$1 per pound. It goes a great way, as 10 to 15 grains of it are sufficient to place at each hole. Also successfully used for killing Gophers and Rats. It has been thoroughly tested in different parts of the country, and gave universal satisfaction. It is kept and sold by druggists and dealers generally through the country. The following are some of my testimonials, viz:

SANTA CLARA, April 20th, 1874.
H. P. WAKELEE, Esq.:—Your Squirrel Exterminator was used according to your directions, on my Quito Farm with excellent success, and in my estimation is just the thing the farmers want to kill their Squirrels.
J. R. ARQUELLO.

SAN LEANDRO, Cal., April 2d, 1874.
H. P. WAKELEE, Esq.:—Dear Sir: I have given your Squirrel Exterminator a fair trial and find it to be an economical and very destructive preparation, and I can safely recommend it to our farmers. Yours,
J. M. ESTUDILLO.

DOUGHERTY STATION, Alameda Co., Cal.
MR. H. P. WAKELEE, San Francisco: I have used your Squirrel Poison and found it to be just what you claim for it. It is sure death. Yours,
O. M. DOUGHERTY.

H. P. WAKELEE, Druggist,
Cor. Montgomery and Bush streets, S. F.

AMMONIA!

For Washing and Cleaning Purposes.

For Sale by all Grocers.

This article is universally used in Europe, and recently introduced for general family use in San Francisco and neighborhood, is already in great demand. It is now the intention of the manufacturers to introduce it all over the Pacific Coast, at prices which will bring it within the reach of every household.

It is unequalled for cleansing Woolen Fabrics, Outlets, Carpets or Crockery; for Scrubbing Floors, Washing Paint, Removing Grease Spots, Shampooing or Bathing.

It renders water soft, and imparts a delightful sens of coolness after washing.

DIRECTIONS.—For Laundry, use two to four table-spoonfuls to a wash tub of water. For bathing, use one table-spoonful in the bath tub. For removing grease spots, apply with a brush, undiluted, and wash with water afterwards. For stimulating the growth of plants, use a few drops in every pint of water used in watering.

PRICE.—Per Pint Bottle, 25 cents; per quart Bottle, 40 cents; per Half Gallon, 75 cents.
Also, SULPHATE OF AMMONIA for chemical purposes, fertilizing, and the preparation of artificial manures. AMMONIACAL PREPARATION for the prevention and removal of boiler scale. CRUDE AMMONIA, for general manufacturing, and PURE LIQUOR and AQUA AMMONIA for chemical and pharmaceutical purposes.

Manufactured by the

SAN FRANCISCO GAS-LIGHT CO.

cowbp

\$5 to \$20 Per Day at home. Terms free. Address G. STANLEY & Co., Portland, Me

AGRICULTURAL NOTES.

CONTRA COSTA.

A WASTE OF WATER.—The Antioch *Ledger* very sensibly remarks: While our farmers in this valley are waiting for the "good time coming," when an irrigating canal shall pass through their land, let them not be unmindful of the fact that nature has already provided them with a natural canal, namely—the Marsh creek—which having its source in the Diablo foot-hills flows directly across the most valuable farming lands in this district. At the time when the soil most needs saturating with water this stream affords an abundant supply, and the farmers have only to unite their efforts in digging trenches and other necessary labor incident to all irrigating canals, to avail themselves of the benefits of this water which would greatly add to their agricultural products.

FINE WHEAT.—The same paper of the 13th inst. also says: Samples of wheat from the ranch of Mr. Hutchison, near town, have been placed on our table, which evidence a heavy growth. The stalks are over two feet in length, and we are told it is a fair specimen of forty acres in one field. Hutchison is one of our very best farmers. He is not afraid to plow deep. He harrows and cultivates his land till it is in condition to receive the seed, and he never fails of crops. Summer fallowing and thorough pulverization of the soil will insure a crop in this valley eight years out of ten, and our farmers are just commencing to learn this fact after years of thriftless experience. The grain in this section is looking well, though rain is needed to make a full crop.

EL DORADO.

DAIRY PRODUCTS.—A correspondent of the Sacramento *Agriculturist* writes from Clarkville: The dairymen are beginning to bring in their golden butter in large quantities. Feed is remarkably good, and we are having an early spring. Dairying and stockraising is the principal business in this vicinity.

LAKE.

WHAT MIGHT BE.—The *Bee* has this to say of its locality: There is really no place in the State that can beat Lake county for vegetable production. In no part of California can you see a more favorable, rich black soil than is to be found here bordering on the lake. Yet it is a fact that few of our farmers take advantage of their situation. They appear to be a little behind the times. With very little trouble, the finest vegetables in the world could be raised in Lake county, yet it is an actual fact that, all through the spring they are imported from Napa and elsewhere. A few enterprising gardeners—say like those Italians who bring their produce into San Francisco every morning—would be no detriment to this region.

NOT ENCOURAGING.—The same paper seems to think present prospects not as encouraging as described: The prospect for an abundant harvest in this county does not, at this time, appear to be flattering. Owing to the continued frosts in the early part of the seeding season, the first crops sown came up so poorly that much of the land sown required to be again seeded. The latter sowing looks much better, but needs rain.

LOS ANGELES.

SHOWERS ACCEPTABLE.—The Los Angeles *Express* of the 12th inst. has the following: There is a general desire for rain, especially on seeded lands where the young grain is struggling into vigor. A few showers would be worth a great deal to the country.

MARIPOSA.

ORANGES.—The *Gazette* of the 13th inst. says: Cathay's valley, of this county, is not only possessed of rich mines, auriferous quartz lodes and fertile soil, but is likewise productive of tropical fruits. One day this week Mr. Frank Harbour laid upon our table, for inspection, an orange about nine inches in circumference, of excellent flavor, taken from the orchard of Mr. Hiram W. Cornett, in Cathay's valley. The tree from which it was taken bore about sixty in number, and the first that it ever produced, and is about six years old. Mr. Cornett has a number of young orange trees, and in a few years, no doubt, Cathay valley will afford our home market with an abundance of this much desired fruit.

NEVADA.

PROMISING.—The Grass Valley *Tidings* has this to say of the crop prospects in that section: From Mr. Phil. Roberts, who has been traveling down through the lower part of the county, we learn that crops of all kinds are looking better at this time than for several years past. A full average acreage is now coming forward, and much more land has been prepared for summer-fallow than usual. Much attention is being paid this season to grafting fruit trees and vines with choice varieties. Alfalfa is proving to be well adapted to the soil of the foothills wherever tried, and many small patches will be put in this year by way of experiment. Cattle, horses, sheep and hogs, all through the foothills, are in better condition than they ever saw them before at this season of the year. With even a less amount of rainfall this year than usual, the farmers of these foothills are sure of a splendid crop.

SACRAMENTO.

RAISING GRAPES.—The Sacramento *Agriculturist* of the 14th inst., says: Last year, during the progress of our State fair, Mr. James Rutter, of Florin, having some very fine specimens of raisin grapes on exhibition, packed a box of them and sent them by express to the fall meet-

ing of the Nebraska State horticultural society. They were placed on exhibition, and were the leading attraction in the pavilion, being viewed and examined by upwards of 40,000 people. Yesterday Mr. Rutter received the following letter from J. T. Allen, President of the society: "Mr. Rutter—Dear Sir: I am instructed by the society to inform you of a resolution passed at their annual meeting, March 1st, tendering you the thanks of the society, and that the society's silver medal will be sent to you for your splendid exhibit of grapes sent. The medal will be sent as soon as engraved. Your exhibition of grapes was the prominent feature of our fair, and coming as it did, unsolicited, merits the thanks of the society, and I personally thank you." And this enterprising gentleman deserves the thanks of Californians likewise, for such an advertisement of our golden products in the other States is of untold benefit. They read the articles and puffs on our soil and climate with many grains of allowance, but such an exhibit as this bears no fraud or exaggeration on its face, and is the most convincing proof to those seeking homes in our State, that our soil is capable of producing the best fruits in the universe.

SANTA CLARA.

LARGE CROPS.—Favorable reports in regard to the crop prospects the coming season still come in. The San Mateo *Times* of the 13th inst. says: Every thing at present is favorable for large crops this year. The farmers throughout the county are sanguine of a large yield. There have been more potatoes put in on the coast than ever before. These will be required to make up the deficiency caused by the falling off in the potato district of the Sand hills, which was so disastrously blighted last year.

SANTA CLARA.

RAIN WANTED.—The San Jose *Mercury* of the 14th has the following: The drying winds of the last few days have sucked the moisture from the earth to an extent that leaves us but little hope of even one-half a crop of grain without further and speedy rains. Already much irreparable damage has been done.

LIVE STOCK FARMING.—The same paper of the 17th has this to say of live stock farming: One of the pressing needs of our valley is a diversified system of farming, and a greater variety of pursuits among the agricultural classes. It has been demonstrated that there is great profit in the cattle and dairy business when properly conducted, yet this is a branch of industry by far too much neglected. Too much attention is given to the old foggy ideas of farming. Raising hay for the market is very profitable, yet it pays better to feed it to stock than to sell it at the usual price, and the revenue to the producer is greater than that realized from grain raising. This is the experience of those of our farmers who have tried the experiment.

SOLANO.

NEW WHEAT.—The Vallejo *Chronicle* of the 12th inst. says: Since last week's reports the crop prospects throughout the county have grown still better as they gradually approach maturity. In Pleasant valley we are informed the grain now stands a foot high. One noteworthy fact connected with its growth the present year is, that it comes up remarkably even. In ordinary seasons the growth is quite unequal, but now it stands about the same height in a whole tract. In Suisun valley some of the wheat has reached a height of eighteen inches, and all of it looks as healthy and promising as could be desired. The Montezuma hills promise the largest yield of almost any section. The summer fallowed grain is standing fifteen inches high, and the winter sown thickly covers the ground. Plows are now running over the hills, getting ground ready for the summer fallow of next year.

SONOMA.

UNUSUALLY FAVORABLE.—A correspondent of the Petaluma *Argus* writes the season is an unusually favorable one for every branch of farming industry. Considerably more butter per cow will be made this year than ever before in Sonoma and Marin counties. Sheep have done uncommonly well and their fleeces are heavier than usual. The grain crop will in all likelihood be above the average.

BUTTER.—The *Argus* editorially has this to say of the future prospects in that locality: So far as the conditions for making butter are concerned, the present season is the most favorable the dairymen of Sonoma and Marin counties have ever enjoyed, and it is the opinion of those who have had good opportunities to judge that a much larger quantity will be made than in any previous year. Although prices are somewhat lower than usual at this season of the year, the amount of butter made will more than make up the difference, and it is altogether likely that the aggregate profits of our dairymen will be much larger than usual. First-class butter is now bringing in this market 24 to 25 cents per pound, against 30 to 33 one year ago. A considerable number of the dairymen hereabouts have commenced packing their butter rather than sell at present prices.

TULARE.

CROP PROSPECTS.—The *Times* of March 13th says: Throughout all parts of the county the crop prospects are exceedingly flattering. We noticed a few days ago, in traveling through the county, fields of alfalfa that was twelve to fifteen inches high, and will soon be ready for harvesting. Wheat and barley that were sown early are now covering the ground thickly, and bid fair to make an excellent crop. The grass is several inches high and feed plentiful. Sheep men are doing better this year than for some time past. Some have over one hundred per cent of lambs.

PATENTS & INVENTIONS.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

[FROM OFFICIAL REPORTS FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.]

By Special Dispatch. Dated Washington D. C., March 16, 1875.

FOR WEEK ENDING MARCH 2, 1875.

TICKET CLASP.—M. Disney, Oakland, Cal.
TELEGRAPH SOUNDER AND RECORDER.—Daniel F. Leahy, Portland, Oregon.
CONNECTION FOR BED BOTTOM SPRINGS.—Alex. C. McMains, S. F., Cal.
CANDLESTICK.—Wells Kilburn, Napa City.
FRUIT DRIER.—Thomas C. Waters, S. F., Cal.
MUSIC LEAF-TURNER.—George L. Dimpfel, Benicia, Cal.
DOUBLE REVERSIBLE HINGE.—Edward Halsey, San Jose, Cal.
PRESERVING APPARATUS.—John P. Schmitz, S. F., Cal.

TRADE MARK.

For Watches.—J. W. Tucker, S. F., Cal.

UTILIZING JUTE FIBER.—Prof. Hodges, who more than 30 years ago made some of the earliest thorough investigations into the flax industry has been performing the same service for jute. The waste fiber is made into paper, even the dust from the mills is utilized in the manufacture of silk hats, stair carpets, painted in bright colors can be made of jute (in England.) for three pence a yard, and coarse bed covers can be made proportionally cheap. It is the cheapness that makes it industrially important and which is the cause of the rapid increase of the manufacture. Dundee alone has received this year 100,000 tons and other towns half as much. The produce of jute is five times as much as that of flax. The length of fiber is frequently 12 feet, and as it is now bleached to snowy whiteness, there is no end of the uses to which it will ere long be applied. —English paper.

DAMAGING WINDS.—We have had of late a succession of several days with drying winds. A member of our editorial corps, just returned from a visit to the country, reports the effect of these winds as very damaging in some respects. Strawberry vines especially are suffering, the leaves shriveling and exposing the roots and berries to the cold, dry winds. Where the wheat is not sufficiently grown to shelter the roots, this crop is also being damaged at a rapid rate. In some places, the farmers are harrowing these weak grain fields, in order to break up the crust forming on the surface, and thereby open the soil. We do not hear that any other fruit than strawberries is being injured, and all the early-sown grain is probably out of harm's way.

WOODWARD'S GARDENS embraces an Aquarium, Museum, Art Gallery, Conservatories, Tropical Houses, Menagerie, Seal Ponds and Skating Rink.

SUBSCRIBERS who by mistake get two copies of this paper, should notify us without delay.

The Nurseryman's Directory.

The undersigned have in preparation, a NURSERYMAN'S DIRECTORY, embracing a list of the Nurserymen, Florists, Seedsmen and Tree Dealers of the United States. The work will be sold wholly by subscription, the price of which will be FIVE DOLLARS PER COPY. A limited space will be given to Advertisements, at the following low rates:

Full Page.....\$25.00
Half Page.....14.00
One-third Page.....10.00
One-fourth Page.....8.00

One-sixth Page, \$5.50.

For Sample Pages, and further information, Address

D. W. SCOTT & CO.,

Printers and Publishers,

Galena, Illinois.

Office of Drain Pipe Works,

S. W. Corner Sacramento and Montgomery Sts., S. F.

DRAINS

CONSTRUCTED

In any part of the State, and

Work Warranted

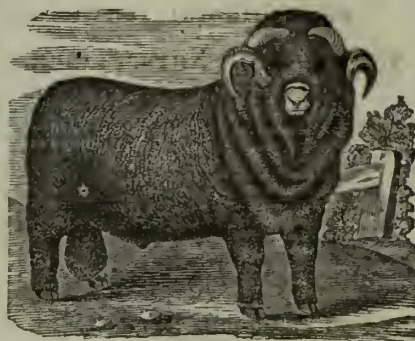
E. T. MENOMY

Proprietor.

cow-hp-1 yr

Orders Wanted at the National Employment office, 608 Market street, room 9; office crowded daily with good men and women, seeking employment; particular attention paid to country orders. 26v8-3m A. BRANDT & CO., Prop's

Live Stock Notices.



Pure Blooded French Merino Rams

For sale by MRS. ROBERT BLACOW, of Centerville, Alameda County, Cal., near Niles Station, on the Western and Southern Pacific Railroad.

These Sheep are guaranteed of pure descent, from the French Imperial Flock at Rambouillet, and are equal, if not superior, to any of this breed in size and quality of wool, and are proved to be the heaviest shearers in the world.

The Imported Draft Stallion,

ADOLPH,

Will make the Season of 1875 at the Stable Proprietor,

COR. FOURTEENTH AND MISSION STREETS, SAN JOSE.

COMMENCING MARCH 1st, AND CONTINUING FOR NINETY DAYS.

Adolph was imported from Belgium to Illinois in June, 1873, and to California in October last. He is a pure-bred Draft Horse, of the French Farnback stock, of a dark brown color, good life, kind disposition and fine movement for a horse of his size. Is seven years old, 16½ hands high, and weighs 1,650 pounds.

Terms, For the Season - - - \$25.00. Payable during the season in U. S. gold coin, or \$10 paid down and \$15 payable when mare is known to be with foal.

Mares from a distance can be kept on good pasture and cared for at \$4 per month. All accidents and escapes at the risk of the owner.

I have imported 12 head of the same stock of horses from Illinois, and invite examination and comparison with any stock of the class in the State. Four three-fourth blood stallion colts for sale. Can be seen on my farm, three and one-half miles east of the city.

L. V. WILLIAMS.



GABILAN HERD

Spanish Merino Sheep.

I have just purchased of Mr. George Hammond, of Vermont, three car-loads of Spanish Merino Sheep, (335 head, Ewes and Bucks) which, with others that I purchased last Fall, (also direct from Vermont) makes my band of Thoroughbred Spanish Merinos about 650 head.

I am prepared to sell both Bucks and Ewes, of Pure Blooded Spanish Merinos—as good as can be had in the World—so says Mr. Hammond. Parties interested will please give me a call. I am ten miles from Salinas City, Gabilan P. O., Monterey county.

J. D. CARR.

N. B.—I have also Good Graded Bucks for sale, and can dispose of some Good Graded Ewes. J. D. C.

12 Short-Horn Bulls,



fat and sleek, thoroughbred, just from Kentucky, at SAXE'S Stables, 35 Ritch Street, between Folsom and Harrison, two blocks from Grand Hotel. Inquire at SAXE'S Stables, or Room 32 Russ House. 3v9-3m

Hooper's South End Grain Warehouse.

Japan and Townsend Streets.

SAN FRANCISCO, July, 1874. I beg to inform you I have leased the above first-class Fire-Proof Brick Warehouse, now being erected by Geo. F. Hooper, Esq., and will be ready to receive storage on the 1st of August. This warehouse offers superior accommodations to parties desiring to store grain and stock, as it is situated on the Water Front, and on the line of the O. P. R. R. and S. P. R. R. It is well ventilated, rat proof, and combines all the modern advantages and improvements. Yours respectfully, JOHN JENNINGS. Advances and insurance effected at the lowest rates. Storage taken at lowest current rates. 4v6-1f

LOCKE & MONTAGUE,

IMPORTERS OF

Stoves, Ranges,

Tin Plate, Sheet Iron, Iron Pipe,

House Furnishing Hardware,

Plain Japanned,

Planished and Stamped

TIN WARE,

112 and 114 Battery Street,

SAN FRANCISCO.

S. F. MARKET REPORT.

At Wholesale when not Otherwise Indicated.

Weekly Market Review.

DOMESTIC PRODUCE.

SAN FRANCISCO, March 17, 1875.

The dry weather for the past two weeks has rendered the Produce Market very firm and made holders indisposed to sell at rates that have been offered. Certain it is that if another fortnight elapses without rain the crop will be short by at least one-third if not more. But it is extremely dangerous to hold back grain on any such chances. At the same time it must be confessed that everything looks much more propitious for good prices than it did towards the end of February.

Barley—Receipts since our last, 9171 cts. Total since March 1st, 17,789 cts. The market is much firmer, the dry weather causing holders to ask more than purchasers are willing to pay. The result has been that very little business has been done since our last. Quotations may be given thus: Coast Feed, \$1.42 1/2; at 1.45; at 1.47 1/2; at 1.50; Coast Brewing, \$1.47 1/2; at 1.50; Bay Brewing, \$1.50; at 1.55; Sales of 1000 bgs of Feed at \$1.40 to \$1.45.

Beeswax—Nominally quotable at 25 to 27 1/2 cts, with no sales.

Beans—Receipts since our last, 2745 cts. Total since March 1st, 5980. There is no business being done—nothing beyond small jobbing sales from day to day. No change in quotations, which range from 20 to 40 for the various descriptions sold in this market.

Broomcorn—The market is dull at 40 to 70 for common and 80 to 100 for good to choice.

Buckwheat—There is none for sale in the market, and Buckwheat Flour has to be imported all the way from St. Louis, Missouri. The nominal quotation is \$3.25.

Corn—Receipts since our last, 187 cts. Total since March 1st, 3854 cts. From at \$1.51 1/2 for Yellow and \$1.45 to \$1.47 1/2 for Yellow. Sales of 300 bks White at \$1.47 1/2, 250 do at \$1.45, 250 White at \$1.42 1/2, 100 do small Yellow at \$1.50 and 300 do Yellow at \$1.42 1/2.

Cornmeal—Quotable at 2 1/2 to 3c for Table and \$3.30 for \$3 for F. ed.

Cotton—Receipts since our last, 5 bbls. Total since March 1st, 17 bbls. Sales of 25,000 lbs at 15c. Quotable at 12 1/2 to 15c.

Feed—Receipts since our last, 4415 bks. March 1st, 5373 bks. Bran, 1214 do of Middlings, and 335 do Feed. Feed is scarce and has advanced. Bran is quotable at \$1.15 and Middlings at \$2.3.

Flour—Receipts since our last, 21,004 qr-sks, including 5,600 Oregon per Ajax. The market has advanced to \$5.37 1/2 for Bakers' Extra on account of the advance in Wheat. Local trade is good. The city mills, however, complain of a slight export demand. Sales for the week embrace about 3000 bbls for export to China and Central America by a couple of city mills. The aggregate of sales for export by city and country mills for past fortnight has been large. Exports since our last, 500 bbls.

Fresh Meat—Mutton is cheaper, quotable at 5 to 6 1/2 cts. Pork Dressed is quotable at 9 to 9 1/2 cts; do on foot, 6 1/2 to 7 cts; Lamb, 10c. Other kinds unchanged.

Fruits—Receipts per Percy Edward from Tahiti, 211,000 oranges and 12,000 limes; per Helen W. Almy, from Honolulu, 250 bunches Bananas and 1490 bxs of Apples. Per Ancon, 50 pkgs Limes.

The oranges by the Percy Edward are the first from Tahiti this year.

The supply of Apples and Pears is fair. Bananas and Limes are severally quotable at \$2.50 to \$3.50, and \$7 to \$8. New Strawberries made their appearance in the market last week.

Game—Remains about as last quoted. The operation of the Game law has left the market entirely bare of certain kinds. Owing however to an oversight in drafting it, Canvas Back Ducks were left out, and some can be had at \$3 to \$4; Prairie Chickens are quotable at \$3 to \$5, but the market is about bare.

Hides—Receipts since our last of 3564.

Dry have declined, and are quotable at 18 to 19c. Shipment of 1 carload East since our last. Wet Salted are quotable at 8 1/2 to 9c, with sales of 2000 for the week.

Hay—Receipts since our last, 910 tons. Total since March 1st, 1601 tons. The range is the same as at date of last report, \$10 to 16. Sales of 30 tons at \$10, 30 do fair at \$12, and 35 do choice at \$15.

Honey—Very little coming in and demand very light. Quotable as follows: Northern, 2 1/2 lb time, do \$3.25 to 4; Choice Southern, 20c to 22 1/2 c per lb; Light Strained, 8c to 9c; Dark Candied, 5c to 6c.

Hops—Receipts since our last, 2 bbls. Total since March 1st, 18 bbls.

Little demand and no sales worth quoting. California are worth 30c to 35c.

Nuts—There is a light jobbing trade going on at prices which, except in the case of California Peanuts and Cocoanuts, have not varied for many months. Cocoanuts are dearer \$50 to \$60 per cargo, and \$80 to \$100 jobbing.

Oats—Receipts since our last, 13,255 cts, including 9,750 cts Oregon per Ajax and Superior. Total since March 1st, 23,527 cts.

The market remains nearly as last quoted for Common California and Oregon, but is a little weak, and choice and fancy kinds being much lower in prices than those last given. The large receipts of Oregon have demoralized the market. We quote Common California, \$1.50 to \$1.55; do Choice, \$1.65 to \$1.75; Oregon, \$1.70 to \$1.80; Fancy do, \$1.85 to \$1.95.

Sales of 100 bks light at \$1.55, 200 do choice at \$1.80, and 1000 do fair at \$1.60 to \$1.70.

Onion—Quotable at 5 1/2 to 6c in 100 lb sacks.

Onions—Receipts since our last, 996 sacks. Total since March 1st, 2,534 sacks.

The market remains about as last quoted; Stockton 50c to \$1.25, Union City, 75c to \$1.50.

Sales of 300 sacks of Stockton City at \$1.00 to \$1.37, and 200 do Union City at \$1.25 to \$1.37 1/2.

Pearl Barley—Quotable at 5 1/2 to 7c for shipping with light demand.

Potatoes—Receipts since our last, 12,921 sacks, including 371 sbs Oregon per Superior, and 408 do per Ajax. Total since March 1st, 30,476 sbs.

The market is lower by 5c than at date of last report. Quotable at \$1.70 to \$1.85. Sales of 600 sbs Tomatoes at \$1.70 to \$1.80; 400 do Choice Humboldt at \$1.80 to \$1.85; 2000 do Potatoes at \$1.45 to \$1.80, 1000 do at \$1.75, and 500 do Humboldt at \$1.85.

Poultry—Is cheaper than at date of last report.

We quote Live Turkey 18c, do Dressed 20c; Hens, \$7.50 to \$8.50; Roosters, \$7 to \$9; Duck, \$7.50 to \$8; Geese, \$18, an advance.

Rye—Receipts since our last, 359 cts. Total since March 1st, 1546 cts.

The market is weak at \$1.13 1/2 to \$1.22 1/2. Sales of 300 sbs at \$1.17, and 1000 do Choice at \$1.22 1/2.

Straw—Receipts since our last, 20 tons. Total since March 1st, 69 tons. Quotable at 70 to 75c.

Seeds—Receipts for the week, 15 bgs Alfalfa, 41 do of Mustard and 247 do of Oregon.

Timothy is quotable at 8c to 13c for California and 9c to 10c for Oregon and Eastern. Mustard Seed weak but unchanged.

Tallow—Receipts since our last, 46,100 lbs.

The market is dull at 60 to 70c, with only a few small sales since our last.

Vegetables—Asparagus, Green Peas and Lima Beans are cheaper, Cabbage and Cucumbers have advanced. The supply of fresh Vegetables is moderate.

Wheat—Receipts since our last, 242,719 cts. Total since March 1st, 672,320 cts. The following table shows the total receipts since Jan. 1st:

Month. Cents.

January.....852,241

February.....823,139

March to date.....672,320

Total.....2,237,750

DOMESTIC PRODUCE.

WEDNESDAY M., March 17, 1875.

BEANS.

Bayo.....3 @ 3 1/2

Butter.....4 1/2 @ 4 1/2

Peas.....3 1/2 @ 3 1/2

Pinoli.....1 1/2 @ 1 1/2

Sm'l wh. nut.....1 1/2 @ 1 1/2

Per doz.....5 @ 10

COTTON.

Cal. 1874.....12 @ 14

DAIRY PRODUCE.

BUTTER.

Cal. choice.....25 @ 27 1/2

Firkin.....25 @ 27 1/2

Interior.....20 @ 22 1/2

Obese, Cal.....17 @ 17

Eastern.....15 @ 20

EGGS.

Cal. fresh.....24 @ 25

Duc's.....22 @ 25

Kestern.....20 @ 20

Oregon.....20 @ 20

FEED.

Bran, per ton.....14 @ 15

Corn Meal.....10 @ 15

Hay.....9 @ 15

Middling.....9 @ 15

Oil cake meal.....9 @ 15

Straw, baled.....75 @ 80

FLOUR.

Extra.....4 1/2 @ 5 1/2

Superior.....4 1/2 @ 5 1/2

FRESH MEAT.

Beef 1st quality.....8 @ 10

Second do.....6 @ 8

Third do.....5 @ 6

Lamb.....7 @ 8

do common.....10 @ 10

Pork, dressed.....8 1/2 @ 9

do, dressed.....8 1/2 @ 9

Veal.....6 @ 8

GRAIN, ETC.

Barley, coast.....14 @ 15

do brewing.....14 @ 15

Buckwheat.....3 @ 10

Corn, White.....1 1/2 @ 1 1/2

do, Yellow.....1 1/2 @ 1 1/2

Oats, ch. ice.....1 1/2 @ 1 1/2

do common.....1 1/2 @ 1 1/2

Rye.....1 1/2 @ 1 1/2

Wheat, coast.....14 @ 15

do shipping.....12 @ 15

do milling.....15 @ 15 1/2

HOPS.

California.....32 1/2 @ 40

East'n.....32 1/2 @ 40

MISCELLANEOUS.

Beeswax, per lb.....25 @ 25

Honey in comb.....18 @ 25

do strained.....8 @ 10

Onions.....12 @ 10

Pulu.....10 @ 10 1/2

NUTS—JOBBER.

Alm'ds b'd sh'l.....8 @ 10

do soft.....20 @ 22 1/2

Brazil do.....14 @ 15

Cal. Walnuts.....10 @ 10

do Walnuts.....8 @ 10

Cocoanuts, 1000.....10 @ 10

Cocoanuts, 17 @ 18

Pecanuts.....17 @ 18

POTATOES.

Bodega.....70 @ 75

Butte Cove.....21 @ 25

do Bv.....21 @ 25

Humboldt.....17 @ 18

Mission.....17 @ 18

Pecon.....18 @ 20

FRUITS AND VEGETABLES.

FRUIT MARKET.

Tabati, Or. M.....1 @ 1

Lords do.....15 @ 30

Cal. do.....15 @ 30

Limes, M.....15 @ 20

Cal. Lemons, M.....15 @ 20

Australian do.....15 @ 20

do Sicily do.....15 @ 20

Bananas, bunch 2 1/2 @ 3 00

Cocoanuts, 1000.....10 @ 10

Pineapples, doz.....7 @ 10

Apples, b. box.....75 @ 75

Cherries.....75 @ 75

Blackberries.....75 @ 75

do wild.....75 @ 75

Huckleberries.....75 @ 75

Strawberries.....75 @ 75

Gooseberries.....75 @ 75

Raspberries.....75 @ 75

do black.....75 @ 75

Apricots.....75 @ 75

do Cauliflower, doz.....12 @ 10

Peaches, bskt.....40 @ 50

do do.....40 @ 50

Green Peas.....11 @ 12

Green Corn doz.....1 @ 1

Sum'r Squash per ton.....1 @ 1

Merro'ted Squash.....1 @ 1

Artichokes, doz.....75 @ 125

String Beans.....75 @ 125

Lima Beans.....75 @ 125

Parasips.....15 @ 20

Shell Beans.....75 @ 125

Peppers, green, box.....75 @ 125

do do.....75 @ 125

Quonbers, box.....75 @ 125

Tomatoes, box.....75 @ 125

do do.....75 @ 125

Exz Plant, box.....75 @ 125

Rhubarb.....75 @ 125

Lettuce.....25 @ 40

Turnips, ton.....15 @ 10

LEATHER.

WEDNESDAY M., March 17, 1875.

City Tanned Leather, 1/2 @ 25

San Cruz Leather, 1/2 @ 25

Country Leather, 1/2 @ 25

Stockton Leather, 1/2 @ 25

do do.....1/2 @ 25

do do.....1/2 @ 25

do do.....1/2 @ 25

do do.....1/2 @ 25

do do.....1/2 @ 25

do do.....1/2 @ 25

do do.....1/2 @ 25

do do.....1/2 @ 25

do do.....1/2 @ 25

do do.....1/2 @ 25

do do.....1/2 @ 25

do do.....1/2 @ 25

do do.....1/2 @ 25

do do.....1/2 @ 25

do do.....1/2 @ 25

do do.....1/2 @ 25

do do.....1/2 @ 25

do do.....1/2 @ 25

do do.....1/2 @ 25

do do.....1/2 @ 25

do do.....1/2 @ 25

do do.....1/2 @ 25

do do.....1/2 @ 25

do do.....1/2 @ 25

do do.....1/2 @ 25

do do.....1/2 @ 25

do do.....1/2 @ 25

do do.....1/2 @ 25

do do.....1/2 @ 25

do do.....1/2 @ 25

do do.....1/2 @ 25

do do.....1/2 @ 25

do do.....1/2 @ 25

OWENS, LANE & DYER MACHINE COMPANY.

Manufacturers of the following Specialties:

Portable & Stationary Engines,

CIRCULAR SAW MILLS,

OF ANY CAPACITY REQUIRED.

Also, the Celebrated

STEAM THRESHER, "California Chief"

Have recently added to their lists, the

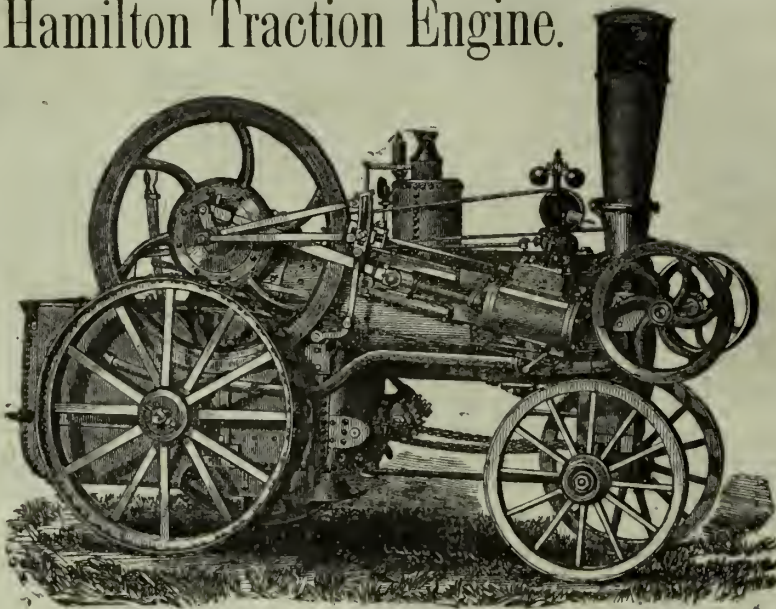
HAMILTON TRACTION ENGINE.

WORKS IN

MACHINERY DEPOT.

HAMILTON, O. ST. LOUIS, MO.

Hamilton Traction Engine.



OUR TRACTION ENGINE

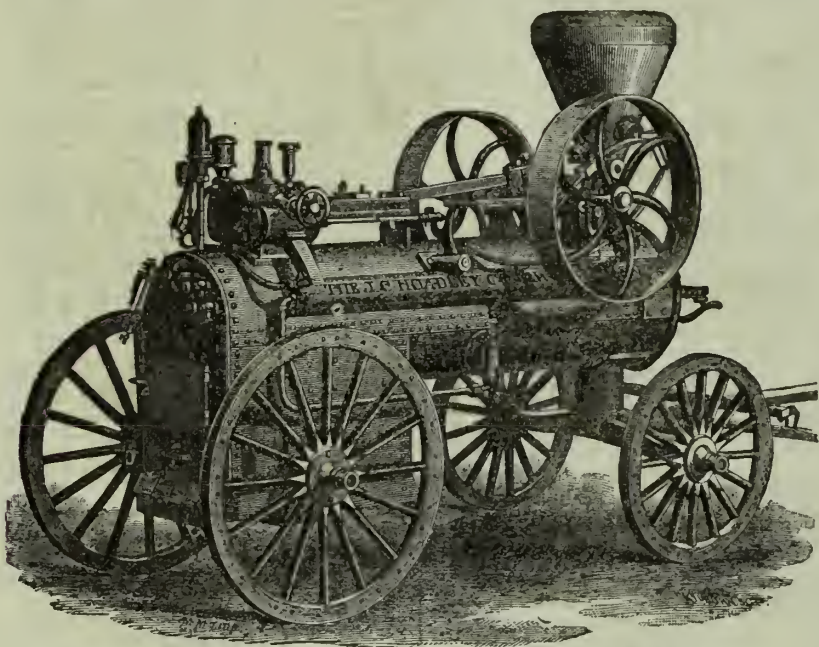
Is no mere novelty or uncertain experiment, but is well designed, well constructed and thoroughly practical in all its operations. It is strong and substantial in all its parts, reliable and durable in action, and capable of any service for which the best of such Engines are adapted.

In its design and construction we have taken as models the best of the English engines of this class, and with modifications and improvements suggested by an experience in the construction and operation of Portable Engines, and a knowledge of the uses that will be required of them, and the conditions to which they will be subjected in this country. We thereby advertise that we are prepared to furnish a ROAD AND FIELD LOCOMOTIVE better adapted for such service and in many respects superior to any thing yet produced in that line.

For full description, prices, &c. of these or any other machinery in our line we invite parties wishing to purchase such machinery, to call and see or address us at our place of business in

HAMILTON, O., or ST. LOUIS, MO.,
OWENS, LANE & DYER, MACHINE CO.

The Hoadley Regulating Cut-off THRESHING ENGINES.



The above cut represents the Hoadley New Style Threshing Engine, 15-horse power, with Patent Cut-off Governor. We also have the same style and size, with HOADLEY'S NEW PATENT STRAW-BURNING FIRE BOX. This new Engine has been thoroughly tested, and we are prepared to warrant it to give satisfaction. OUR GUARANTEE GOES WITH EVERY ENGINE INTO THE FIELD. This new engine is fitted out complete, with High Seat, Foot-Board for Driver, California Roller Brake (not shown in engraving), Iron Hub, Patent Wheels, Forged Bent Axle, and all Mountings in Perfect Order.

THE

Hoadley Straw-Burning Threshing Engine

Is no heavier than wood burning engines of same power, and is unquestionably the Best Threshing Engine in the world. It is Lighter, Better Made, Safer, and will do More Work than any other engine of same size and price ever built. THIS FACT IS INDISPUTABLE.

Farmers and Threshers desiring to buy Straw-Burners for coming season, should secure their Engines Early, as the number is not large, and many are already engaged. All Engines will be tested in presence of customers, when required. Send for Circular and Prices. Address,

TREADWELL & CO., Sole Agents, San Francisco.

BOWEN'S PREMIUM YEAST POWDER.

Bowen's Premium Yeast Powder.

Bowen's Premium Yeast Powder.

Bowen's Premium Yeast Powder.

Bowen's Premium Yeast Powder.

Best in the World! Every Can Guaranteed!!

For Sale in Every Village, Town and City on the Pacific Coast.

Ask Your Grocer for it.

Manuf'd by BOWEN BROS., 432 Pine St., S. F., and 11th & 12th Sts., Oakland.

RELIABLE.

UNEQUALED.

THE

ONE PRICE DRY-GOODS HOUSE,

42, 44, and 46, Third Street, San Francisco.

THE GOODS ARE ALL MARKED, IN PLAIN FIGURES,

PEIXOTTO & SILVERMAN.

PUMPS.

"PEOPLE'S PUMP."

THE FARMERS' FRIEND.

BEST IN USE FOR HOUSE AND STOCK PURPOSES. CAN

BE USED WITH HOSE FOR WASHING

WAGONS, WINDOWS, AND

WETTING GROUNDS.

SEND FOR CIRCULAR.

DUNHAM, CARRIGAN, & CO.,

Successors to

Conroy, O'Connor & Co.,

San Francisco



cow

The attention of Wool Growers is continually invited to the

Thoroughbred Stock Bred and Kept on the MERINO RANCH,

Situated at Niles, Alameda County, Cal., only five minutes walk from the station, junction of San Jose and C. P. R. R. Parties desiring to visit our ranch can leave San Francisco at 3 o'clock P. M., and have an hour at the ranch, returning on Overland train at 6 P. M. Or coming out in morning, can return to city at 11 o'clock A. M. The proprietors make the

THOROUGHbred SPANISH MERINO SHEEP A SPECIALTY,

Believing them to be the BEST SHEEP IN THE WORLD, and are constantly receiving fresh importations from Addison County, Vermont.

Our flock are all Imported Sheep, and have no superiors in the United States. We always have on hand choice young RAMS and EWES, of all ages, for sale at Reasonable Prices, giving time, if required, to responsible parties. City Office—315 California Street, San Francisco.

10v7-cow

SEVERANCE & PEET,
Importers and Breeders of Spanish Merino Sheep.



ENCOURAGE HOME INDUSTRY.

C. C. Burr & Co's



Mustard

50 per cent. Better than any Imported Mustard.

Ask Your Grocer for it.

9v5-cow-hp.

THE CLEETON COOP COMPANY,

Of New Haven, Conn.,

Are now prepared to furnish societies and individuals with

Standard Exhibition Coops

AT REASONABLE RATES.

Correspondence Solicited.

DAVID WOERNER,



COOPER,

No. 104 and 112 Spear St., San Francisco.

Wine Casks, Tanks, Tubs, Pipes, Beer Barrels, etc., Manufactured at Short Notice and LOW RATES.

LUMBER for CASKS, etc., TANKS, etc. Steamed and Dried if required. cow-bp.

J. M. NEVILLE.

G. H. BRYANT

NEVILLE & CO'S FACTORY

113 Clay and 114 Commercial Sts.,

SAN FRANCISCO.

BAGS of All Kinds,

TENTS, All Sizes and Descriptions.

HOSE for Hydraulic Use.

CANVAS, All Numbers.

TWINE for Sewing, Etc.

Agricultural Articles.

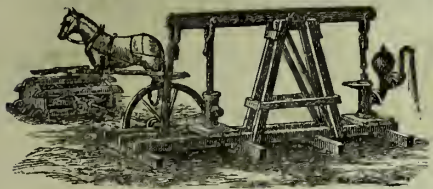
VINE AND FRUIT GROWERS,

TO RAISE LARGE CROPS

YOU MUST IRRIGATE.

To irrigate successfully, you must have the power that does not give out when the wind fails.

Laufkotter Bros. & Churchman's Horse-Power,



[PATENTED FEBRUARY 13TH, 1872.]
Never fails to supply more water than four or five Windmills, even supposing you had all the wind you want. It is also suitable for running light machinery, such as Barley Cracks, Corn Shellers, Fanning Mills, Grain Separators, or for Sawing Wood. They are never failing, cannot get out of order, easily worked, substantial, and always give satisfaction wherever they have been used. One horse can easily work two 6-inch pumps, with a continuous flow of water. Force Pumps, from 3,000 to 10,000 gallons per hour. WINDMILLS of all kinds manufactured to order. Wells Bored, Windmills and Horse-Powers set in any part of the State, and repairing of all kinds done.
Manufactured and for sale by

LAUFKOTTER BROS.,

v7-2m-3m Cor. J and 10th Sts., Sacramento.

O. GREGO.

S. C. BOWLEY.

GREGO & BOWLEY,

Importers and Manufacturers

—OF—

CARRIAGES and WAGONS,

No. 9 Merchant's Exchange,

CALIFORNIA STREET.....SAN FRANCISCO

Keep constantly on hand top and open Buggies, top and open Rockaways, Jump-seat Buggies, Tract and Road Sulkies, Skeleton Wagons, Basket Phaetons of the very latest styles and finest workmanship.

We would call particular attention to our fine stock of Light Road and Trotting Wagons, made to order by the following celebrated makers:

Charles S. Coffrey, Camden, New Jersey;
Helfield & Jackson, Rahway, New Jersey;
Grogg & Bow, Wilmington, Delaware;
And the first-class makers, which we are prepared to sell on the most reasonable terms.

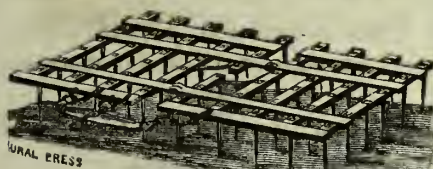
Also, a large assortment of single and double Harness, of the most celebrated makers:
O. Graham, New York; J. R. Hill, Concord; Pitkin & Thomas, Philadelphia.

Also, a full assortment of Dress and Light Blankets, Fur and Lap Robes, Whips, Halters, Surcingle, etc., at wholesale and retail.

GREGO & BOWLEY,

No. 9 Merchant's Exchange, California street,
2475-3m San Francisco.

Donohue's Patent Harrow.



Patented October 13, 1874.]

This Harrow, as may be seen in the cut, is constructed so that by its natural hanging and draft, without extra weights, the outer edges will keep down to their work, and preserve, as nearly as possible, a uniform level and penetration of teeth. To illustrate the engraving, if a line should be drawn through the two hinges, it would cut the Harrow into two trapezoidal figures, thus causing the weight of the corners or acute angles to be nearly at right angles to the breaking line or joints of the two hinges, so that their superior leverage, owing to their greater distance from the hinges, will cause them to keep closely down to the ground when the harrow is working.

Orders received from all parts of the country, and a thoroughly durable implement furnished at reasonable rates, by the inventor, who is a practical worker.

F. DONOHUE,

Mayfield, Santa Clara County, Cal.

MATTESON & WILLIAMSON'S



Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over or under knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m

MATTESON & WILLIAMSON,
Stockton, Cal.

Allen's Planet Jr. Silver Medal

Have Dulle and Wren's Hoes. These new styles. They "sow like a charm," and sow better, easier, and six times faster than the hand hoe. S. L. ALLEN & CO., Mfrs.
119 S. 4th St., Phila., Pa. Circulars free.
A LIVE AGENT WANTED IN EVERY TOWN.

KIMBALL CAR, CARRIAGE

—AND—

AGRICULTURAL IMPLEMENT

MANUFACTURING CO.,

Cor. Bryant and Fourth Sts., San Francisco

The CALIFORNIA TUBULAR IRON AND WOOD FRAME HARROW—two, four and six-horse Iron Harrows, \$60, \$70 and \$75. Wood Frame Harrow, \$10 less on each size than the Iron.

The Harrow has an easy seat for the Driver. The middle section rests on three wheels with wings hinged on each side.

By use of Levers the Driver in his seat can raise or lower the Harrow, regulating at will the depth of the teeth in the soil, and in the same manner fold or raise the wings from the ground so as to drive from the road to the field, saving the use of a wagon.

Our CALIFORNIA SCRAPER is also made for the ease of the Driver, enabling one person to ride, manage the team and do the work.

Is adapted for leveling and preparing the surface of the soil for irrigation. And for making roads, removing dirt from ditches, cleaning barn yards, sheep corals, etc.

The IMPROVED EAGLE HAY PRESS—Best in use on this Coast. Cheap, Economical, Powerful, and easily repaired.

Will press bales weighing from 250 to 325 pounds, using less rope than any other press.

Three men with a good team of horses will bale from 10 to 15 tons per day.

Adapted for baling wool, hides, cotton, rags or moss. Price, \$250. Weight of press, 2,500 pounds. Please send for circulars.

ENRIGHT'S

Portable Strawburning Engines

Burns either Straw, Wood or Coal, Manufactured and sold by
JOSEPH ENRIGHT,
mr-13-3m San Jose

Farmers and Threshers

WISHING TO HAVE

Straw Burning Engines

For next season must engage them soon, as most of those now building are already sold. Threshing Engines for Repairs should be sent in now. A number of Second-hand Engines—taken in exchange for "Straw Burners"—for sale cheap. For particulars and prices, address:
H. W. RICE,
23v8 3m Haywood, Alameda County.

PUMPS SLUTHOUR PUMPS

Are sold 50 per cent. under any other in the market, considering the amount of water obtained for the power applied. They have now been fully tested for IRRIGATION, and entire satisfaction is guaranteed. Call and see them, or send for Circulars.

J. M. KEELER & CO., Agents,
306 California Street, San Francisco.

LEVI, STRAUSS & CO.,

Patent Riveted

Clothing,

14 & 16 Battery St.,

San Francisco.



These goods are specially adapted for the use of FARMERS, MECHANICS, MINERS, and WORKING MEN in general. They are manufactured of the Best Material, and in a Superior Manner. A trial will convince everybody of this fact.

Patented May 12, 1873.

USE NO OTHER, AND INQUIRE FOR THESE GOODS ONLY. vov-bp

Union Box Factory,

GEO. W. SWAN & CO.,

115 and 116 Spear St., bet. Mission & Howard
SAN FRANCISCO.

Apple, Pear, Plum, Peach, Cherry, Grape, Orange, Lime and Wine Cases.

Tomato, Potato, Fig and Raisin Boxes.

Strawberry, Raspberry and Blackberry Chests and Drawers, and Baskets for all kinds of Berries.

Peach and Picking Baskets, Butter Chests and Boxes, Cheese Boxes, Square and Round Egg Carriers. Drums for Figs, Cherries, Raisins, and for other Dried Fruits.

Free Packages—Boxes not to be returned—a good article, costing less than Sawed Boxes.

Lard Caddies, Coffee and Fruit Caddies.

Turkey and Chicken Coops, Bee-Hives, Etc.

Packing Boxes for Dry-Goods, Cigars, Candles, Candied Fruits, Honey, Macaroni, Crackers, Sugar, Soap, Boots, Etc.

In fact, every style of Boxes manufactured in the Union, and turned out in the Best Style at Favorable Prices. Orders from the country well attended to

Commission Merchants.

STUART & ELDER,

WHOLESALE

COMMISSION MERCHANTS

FOR THE SALE OF

California Dairy Produce,

GRAIN & QUICKSILVER,

204 Front Street, San Francisco.

AGENTS FOR THE

Missouri,

Kentuck,

Ida Clayton

and Yellow Jacket

Quicksilver Mines.

All orders for Supplies [and Machinery for Mines promptly attended to.

RETORTS, POWDER and MINERS' TOOLS

Supplied at Importers' Prices

3v9-eow-bp



H. K. CUMMINGS.
1858.

H. H. BALSTON.
1875.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission House,

ESTABLISHED 1858.

No. 424 Battery street, southeast corner of Washington, San Francisco.

Our business being exclusively Commission, we have no interest that will conflict with those of the producer. 4v23-1v

MOODY & FARISH,

Wool Commission Merchants,

No. 210 Davis Street, S. F.

Eureka Glycerine and Carbolic Sheep Dip; Sheep Shears; Wool Sacks and Twine constantly on hand at low prices.

Davis & Sutton, Commission Merchants,

For California Fruits; also for the sale of Butter, Eggs, Cheese, Hops, Green and Dried Fruits, etc., 75 Warren street, New York. Refer to Anthony Halsey, Cashier, Tradesmen's National Bank, N. Y.; Ellwanger & Barry, Rochester, N. Y.; O. W. Reed, Sacramento, Cal.; A. Lusk & Co., Pacific Fruit Market, San Francisco, Cal.

COMPTON & BINFORD,

REAL ESTATE BROKERS

Employment and Intelligence Office. Horse and buggy free to see property. Offices at Compton, and at corner of Court and Spring streets, Los Angeles, Cal.

Miscellaneous Notices.

J. Y. WILSON. WM. FAULL. W. L. MERRY

WILSON, MERRY & CO.,

Provision Packers

And Dealers in

SALTED AND SMOKED MEATS,

Lard, Etc.

PROP'S BLACK POINT/PACKING HOUSE.

We respectfully call the attention of Farmers and Stock Raisers to the fact that we are always prepared to purchase hogs, cattle and sheep at full market prices, for Cash, and shall be glad to answer promptly any inquiries addressed to us on the condition of the Market.

Office No. 223 Sacramento St., Near Front, San Francisco.

LEA & PERRINS'

—CELEBRATED—

Worcestershire Sauce.

Declared by Connoisseurs to be the only good SAUCE.

Caution Against Fraud.

The success of this most delicious and unrivalled Condiment having caused certain dealers to apply the name of "Worcestershire Sauce" to their own inferior compounds, the public is hereby informed that the only way to secure the genuine is to ask for LEA & PERRINS' SAUCE, and see that their names are upon the wrapper, labels, stopper and bottle.

Some of the foreign markets having been supplied with a spurious Worcestershire Sauce, upon the wrapper and labels of which the names of Lea & Perrins have been forged, L. & P. give notice that they have furnished their correspondents with power of attorney to take instant proceedings against manufacturers and vendors of such, or any other imitations by which their right may be infringed.

To be obtained of Messrs. CROSS & CO.,
San Francisco.

J. & P. N. HANNA,

IMPORTERS AND DEALERS IN

Grain, Wool, Ore and Bean Bags,
Flax, Cotton and Linen
Twines.

COTTON, DUCK, RAVENS AND DRILLS—33, 36, 40 42 and 45-inch Wido Duck; 8, 10, 12 and 15-Ounce Duck.

Ore Bags, Tents and Hose

MADE TO ORDER.

Nos. 308 and 310 DAVIS ST.,

San Francisco, Cal.

THE CELEBRATED

H. H. H.

HORSE MEDICINE

IS STILL AHEAD OF ALL OTHERS.

The Wholesale Druggists of San Francisco, give evidence of its appreciation throughout the State, by and rapidly increasing orders. We pledge it a cure for SPRAINS, WIND GALLS,

SWEENEY, SCRATCHES,

LAME AND STIFF JOINTS,

CALLONS, LUMPS,

AND ALL BLEMISHES,

SPRAINS OR BRUISES.

It is a household blessing and no family should be without a bottle in the house. For sale everywhere.

WILLIAMS & MOORE, Prop's.,

25v8-6m Stockton, Cal.

CALVERT'S



CARBOLIC

SHEEP WASH.

Sole Agency for California and Nevada

T. W. JACKSON'S,

416 Sacramento Street, San Francisco.

PACIFIC POTTERY, SACRAMENTO.

MANUFACTURERS OF

Sewer Pipe, Drain Tile,

PLAIN FLOWER POTS,

FIRE BRICK.

JOHN B. OWENS, Agent,

No. 30 California Street, S. F.

Brittan, Holbrook & Co., Importers of
Stores and Metals, Tinners' Goods, Tools and Machines,
111 and 113 California, 17 and 19 Davis streets, San Francisco, and 179 J street, Sacramento.

1874. GUIDE AND CATALOGUE 1875.
FREE.

To persons contemplating purchasing I will send my ILLUSTRATED, DESCRIPTIVE CATALOGUE and GUIDE to the VEGETABLE and FLOWER GARDEN WITHOUT CHARGE. It contains the most extensive and valuable list of



Flowering Bulbs, Roots and Plants, Semi-Tropical Trees, Ornamental Shrubs, Fruit and Shade Trees, etc., ever offered in this market. It tells how to successfully grow the Australian Blue Gum, the Monterey Cypress, Pine, etc., and the proper method of Cultivating Tobacco on this Coast.

My stock of seeds is in part my own raising and in part direct importations from the best European and Eastern growers, and is unsurpassed in all respects by that offered by any other establishment. 100,000 Australian Blue Gums and Monterey Cypress in boxes at from \$30 to \$50 per 1,000, raised at my own Nursery at San Rafael.

R. J. TRUMBULL,
Grower, Importer, Wholesale and Retail Dealer in
Seeds, Shrubs, Trees, etc.

20v8-6m-16p 427 Sansome street, S. F.

M. FALLON,

Cor. Seventh & Oak sts.,

OAKLAND, CAL.

Light & Dark Brahmas,
Buff, White and Partridge Cocks,
Spangled, Golden and Silver Polish,
Spangled, Golden and Silver Hamburgs,
Pure White-faced Black Spanish,
White and Brown Leghorns,
Silver Grey Dorkings,
Houdans, Silkies, Black-Red Games,
Bronze Turkeys, Rouen and Aylesbury Ducks.

All from Premium Stock of Best Strains.

Fowls of above varieties for sale; also, Chicks in their season. Eggs packed with care and sent in rotation as orders are received.



This is a Sure Cure for Screw Worm, Scab and Foot Rot in Sheep. It also kills Ticks, Lice, and all Parasites that infest Sheep.

Prevents scratching and greatly improves the quality of the wool. One gallon of the Dip properly diluted with water will be sufficient to dip one hundred sheep, so that the cost of dipping is a mere trifle, and sheep owners will find that they are amply repaid by the improved health of their flocks.

The Dip is guaranteed to cure when used according to directions, and to be vastly superior to Corrosive Sublimate, Sulphur, Tobacco, and other remedies which have heretofore been used by farmers.

Circulars sent, post paid, upon application, giving full directions for its use, also certificates of prompt sheep growers who have used large quantities of the Dip, and pronounce it the most effective and reliable known Cure and Preventive of Scab and other kindred diseases in Sheep.

SEEDS. PLANTS.

OF EVERY VARIETY.

Fresh and reliable, much as experience and care only can select.

GRASS AND CLOVER SEEDS, KENTUCKY BLUE GRASS, HUNGARIAN, ORCHARD, ITALIAN RYE, RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL, CHOICE CALIFORNIA ALFALFA, WHITE CLOVER, RED CLOVER, Etc.

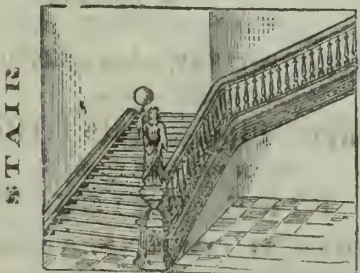
Also, RAMIE, JUTE AND TOBACCO SEEDS; together with a fine and complete collection of TREE SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGANTEA, PINUS INSIGNIS, Etc.

For Sale, wholesale or retail, by

B. F. WELLINGTON,

(Successor to E. E. Moore).
425 Washington St., San Francisco. 22v7-1y

SANBORN & BYRNES.



Mechanics' Mills, Mission Street,
Bet. First and Fremont, San Francisco. Orders from the country promptly attended to. All kinds of stair material furnished to order. Wood and Ivory Turners. Billiard Balls and Tea Pans, Fancy Novels and Balusters.

25v8-8m-hp

BANCROFT'S
MUSIC ROOMS

Second and Third Floors, Bancroft's Building.

General Agency for

KNABE PIANOS.

No other Instrument has such a strong, unblemished and secure reputation to-day as the Knabe Piano. It is the only AMERICAN PIANO that finds a sale among the titled and wealthy families of Europe, where intrinsic merit determines the choice. Wherever the Knabe Piano has been introduced, in cold or hot countries, in wet or dry, it holds its exquisite quality of tone unimpaired, and retains in perfect condition its powerful yet delicate action under long and hard use. The great centers of civilization in Europe and America to-day recognize the Knabe Piano as without a superior in any essential of a first-class instrument. The Knabe Piano stands unrivaled in reputation in the great cities of New York, Washington, Chicago, Cincinnati and New Orleans.

United Piano Makers' Square and Square Grand Pianos.

Hardman Square Grand Pianos.

McCammon Square Pianos—small size.

Fischer Square Pianos. Very Low Priced.

Cycloid Pianos with Crescent-shaped Back

Pleyel Grand and Upright Pianos.

Dibain Upright Pianos.

Chappell Upright Pianos.

ALSO GENERAL AGENTS FOR

Prince Cabinet Organs and Melodeons, Vogel & Hughes
Nonpareil Cabinet Organs, Manning Organ
Co's Parlor Organs,

COMPRISING ALTOGETHER

The Largest and Most Complete Assortment of Pianos and Organs to be found in any one House on the Pacific Coast. Instruments Reliable and Fully Warranted. PRICES VERY REASONABLE. Also

Sheet Music.

A LARGE, FRESH STOCK AND COMPLETE ASSORTMENT OF SHEET MUSIC and Music Books.

Guitars, Violins,

STRINGS, ACCORDEONS, FLUTES AND A GENERAL ASSORTMENT OF Musical Merchandise at Reasonable Prices.

Good Bargains

TO BE HAD AT BANCROFT'S MUSIC WAREHOUSES. OLD PIANOS TAKEN in exchange for new. Pianos sold on installments. New and second-hand Pianos sold very low. Call and examine Stock.

A. L. BANCROFT & CO.,

No. 733 Market Street,

San Francisco, Cal.

DUNBAR'S WONDERFUL DISCOVERY.

BETHESDA MINERAL SPRING WATER
Of Waukesha, Wisconsin.

We claim Bethesda to be a specific in all cases of Diabetes Inflammation of the Kidneys, Inflammation of the Neck of the Bladder and Urethra, Inflammation of the Bladder, Dropsy, Gouty Swellings, Stoppage of Urine, Albuminuria, Ropy or Cloudy Urine, Brick Dust Deposit, Thick, Morbid, Bilious and Dark Appearing Urine, with Bone Dust Deposits; Burning Sensation with Sharp Pains when voiding Urine; Hemorrhage of the Kidneys, Pain in the Kidneys and Loins, Torpid Liver, Indigestion, Calculus, and Female Weakness.

There is no remedial agent known to man that can cure the foregoing diseases as effectually as Bethesda Water. This fact has been demonstrated wherever the water has been used according to directions, which can be had at the General Agents' by application to them. The water is sweet and pleasant to the taste. It can be drunk at all hours. Why should any one suffer while this Water is so easily obtained?

DUNBAR, HENDRY & LAVERY, Sole Agents for Pacific Coast,

fb27-cow-bp-3m

107 STOCKTON ST., SAN FRANCISCO.

The Popular Farm Journal.

—THE—

AMERICAN PATRON

Is acknowledged by all who have examined it to be the very best paper published in the interest of the Order of

Patrons of Husbandry.

And furnished at the low rate of

One Dollar and Twenty-five Cents Per Year,

With liberal reductions to clubs and Granges, and handsome Premiums to canvassers. Send for free sample copy and be convinced.

THE AMERICAN PATRON has an ably-conducted Editorial Department, dealing each week strong blows at monopoly in every form, clearly elucidating the great principles which underlie the agitation known as the

Farmers' Movement.

THE AMERICAN PATRON is a large eight-page paper, containing forty broad columns of elegant reading matter. The Agricultural Department is made up of original and select matter of general interest to the farmer.

This paper is not the rehash of a daily paper, but all the matter is carefully selected and prepared for this edition alone.

Important Inducements to Granges. Specimen copies sent free on application. Address all communications to

J. K. BARND, Publisher,
Findley, Ohio.

BELLA UNION HOTEL,

JOHN F. MILLER, Prop.,

SAN BERNARDINO, CAL.

This fine hotel is situated in one of the best parts of the city, and the proprietor will at all times use his best endeavors to promote the comfort of his guests.

Improve Your Poultry,

IT COSTS NO MORE TO KEEP GOOD FOWLS THAN POOR ONES!

OAKLAND POULTRY YARDS,

Cor. 16th and Castro streets, Oakland, Cal.



Eggs for Hatching

GUARANTEED FRESH.

True to Name,

And to carry safely to any part of the country.

BRAHMAS, LIGHT AND DARK LEGHORNS, WHITE AND BROWN HOUDANS, COCHINS, BUFF, BLACK AND PARTRIDGE POLISH, GOLD EN, SILVER AND BLACK GAMES, AYLESBURY AND ROUEN DUCKS, DORKINGS AND BANTAMS.

BRONZE TURKEYS, the Largest in America.

Send for Circular to

GEO. B. BAYLEY,
Box 659, San Francisco.

FARMERS' UNION!

SUCCESSOR TO A. PETER & Co.,

Cor. Second and Santa Clara Sts., San Jose.

CAPITAL, \$100,000.

WM. ERKSON, President

H. E. HILLS, Manager

Directors:—Wm. Erkson, L. F. Chipman, Morse Litla J. P. Dudley, David Campbell, James Singleton, Thomas E. Snel, C. T. Settle, E. A. Bralor.

Will do a General Mercantile Business, also receive Deposits, on which such interest will be allowed as may be agreed upon, and make Loans upon approved security.

NEW CROP OF

BLUE GUM SEED.

GRASS AND CLOVER SEEDS.

FLOWER AND VEGETABLE SEEDS.

TREE AND FRUIT SEEDS.

OF EVERY DESIRABLE VARIETY AND OF THE BEST QUALITY; OFFERED AT WHOLE-SALE OR RETAIL, BY

GEO. F. SILVESTER,
SEEDSMAN,

No. 317 Washington Street,

24v8-1f

SAN FRANCISCO

Grangers' Bank of California

INCORPORATED APRIL 27th, 1874.

Capital \$5,000,000, in 50,000 Shares of \$100 each.

Directors:

PRESIDENT—JONATHAN V. WEBSTER..... Alameda
V. PRESIDENT—C. J. CRESSEY..... Stanislaus County
THOMAS McCONNELL..... Sacramento
JOHN G. HILL..... Ventura County
J. V. WEBSTER..... Alameda County
JUSTICE C. MERRYFIELD..... Solano County
J. LEWELLYN..... Napa County
GILBERT W. COLBY..... Butte County
J. P. CHRISMAN..... Contra Costa County
F. J. WOODWARD..... San Joaquin County
O. S. ABBOTT..... Monterey County
F. A. CRESSEY..... Secretary.

Office, 415 California Street,

SAN FRANCISCO. - - CALIFORNIA

The Bank was opened on the first of August, 1874, for the transaction of ordinary banking business.

Current Accounts are opened and conducted in the usual way, and interest at the rate of 4 per cent per month is allowed on the minimum monthly balance.

Deposit Receipts in sums of \$50 and upward received, and receipts given for the amounts, repayable on 30 days' notice of withdrawal. These deposits bear interest at a rate varying with the current rate of discount.

Deposits for Fixed Periods are received, and interest allowed at the following rates: Three months, 6 per cent.; Six months, 7 per cent.; One year, 8 per cent. A share of the patronage of the public is solicited.

California Farmers Mutual
Fire Insurance Association.

Office, 6 Leidesdorff St., - San Francisco.

Directors:

A. WOLF, A. W. THOMPSON, I. C. STEELE,
I. G. GARDNER, J. O. MERRYFIELD, J. D. BLANCHARD,
G. P. KELLOGG, Treas.

Finance Committee:

I. G. GARDNER, J. O. MERRYFIELD, A. W. THOMPSON

Trustees:

J. M. HAMILTON, Lake Coll. C. STEELE, San Mateo Co
J. O. MERRYFIELD, Solano Co. A. B. NALLEY, Sonoma Co
G. W. COLBY, Butte Co. O. S. ABBOTT, Santa Barbara Co
H. B. JOLLEY, Merced Co. A. W. THOMPSON, Sonoma Co
A. WOLF, San Joaquin Co. E. W. STEELE, St. Olaf Co
J. D. BLANCHARD, Pres't. W. H. BAXTER, Sec'y.

This association is organized for the purpose of affording the farmers of this State the means of safely insuring against loss by fire, at actual cost of insurance, without being connected with city risks. a372-1f

Bronze Turkeys

Emden Geese

12 Gobblers from 8

to 20 months old,

22 to 40 lbs each,

for sale now.

Hens 14 to

18 lbs.

40 to 50 pounds

per pair at ma-

turity.

BLACK

CAYUGA DUCKS,

Games, Brahmas, Leghorns, Houdans, Bantams, etc.

Eggs, fresh, pure, true to name; well-packed so as to hatch after arrival.

For Illustrated Circular and Price-List, address

M. EYRE, Napa, Cal.

FERRETS.

RABBITS.

PIGEONS.

Please state where you saw this advertisement.

HEALD'S Business College.

No. 24 Post Street, San Francisco.

The largest and best Business College in America. Its teachers are competent and experienced. Its pupils are from the best class of young men in the State. It is under the very best discipline. Its scholarships are good in the THIRTY-SIX Bryant & Stratton Colleges. It employs four of the best penmen in the State. It has the largest rooms, the largest attendance, and the most complete system of business training of any commercial school in the country.

For information, call at the office, 24 Post street, or address, for circulars,

E. P. HEALD,

President Business College, San Francisco

PACIFIC RURAL PRESS

Volume IX.]

SAN FRANCISCO, SATURDAY, MARCH 27, 1875.

[Number 13.]

Champion Iron Drag Saw.

The cutting of timber like all other departments of labor is having the benefit of machinery brought to its aid, rendering it vastly easier and more expeditious. People living outside the timber districts will perhaps scarcely realize the advantages to be derived from such improvements, but there are many neighborhoods into which the Press is sent that will be particularly interested in the machine here represented.

The Champion drag saw will saw a tree on either side from the same end; is a decided improvement on the Culver drag saw, that has been sold with entire success for the past three years. The Champion is lighter, (in total weight), stronger made, saws faster, is easier on mules or horses, does away with all rocking of saw-jack and former lost motion of saw when in operation; is very easy labor for one man to handle, the saw-jack being on small broad wheels. The pitman has a well fitted brass box at end on wrist, susceptible of having the wear taken up, by aid of a set screw and keeper, or pinch nut to hold it. Every improvement has been applied that three years experience in manufacturing and selling Culver's iron drag saw could give.

The old horse-power (shown in the above cut with horse attached,) has been superseded by a new and improved one, made from entirely new patterns, and with particular reference to strength, speed and durability. (See cut.) One horse or mule is hitched to each sweep, never two to one sweep. The excessive friction attending the running of old power, and the strain and labor imposed upon the horses, together with an occasional breakage, through carelessness, is entirely overcome. The shafting makes 80 revolutions a minute; saw 160 strokes a minute, thereby enabling the horses without being whipped to make the speed formerly gained by working them to a fast walk. The horse-power is peculiarly adapted for running any kind of farm machinery; such as grist mills, cutting boxes, circular and wood saws. It works on either side of log. Will saw a tree just where it falls, on even or uneven ground, without the tree or horse-power being moved. Requires but one man to run it, and does the work of twelve men.

The horse power is mounted on a sled, and thus can be very easily and quickly moved from place to place. The levers are so arranged as to allow one or two horses to be used.

The double or universal joints at each end of the different tumbling shafts admit of the shafting being curved and allow the machine to saw at an angle with the power. This is a very important advantage, as there are many cases where it is desirable to so use machines.

The wrought-iron jack can, with much ease and speed, be moved along the tree or log any distance desired for making a cut. When sawing the machine is firmly held to the log by the dog.

A five and one-half foot saw is furnished with every machine, which will saw all timber under five feet in diameter. For larger sizes a seven foot saw should be used.

This machine will saw any size tree. It works well in all kinds of timber, and is found particularly profitable in cypress, cottonwood and pine timber.

The price of the Champion saw drag, with power complete, is \$225. It will saw from 15 to 25 cords per day. Baker & Hamilton have it for sale, and parties addressing this firm may rest assured that they are dealing with one of the oldest and most reliable houses on the Pacific coast.

SEVERAL Contra Costa county farmers who have discovered that they can grow more wheat on half their land by proper cultivation than to farm all poorly, are now plowing their fields preparatory to dry sowing next fall.

The Yield of the Coming Harvest.

It is now generally conceded that neither grain nor grass will, in the approaching harvest, come up to the promise of six weeks ago. This promise was unprecedented, and at no time have people believed that it would be wholly fulfilled; farmers and the community in general were prepared for reverses that would reduce to some extent the promised yield. The anticipated reverses have come in the form of north winds, which have materially augmented the injury arising from want of rain. Still it is only the late sown grain that has been affected injuriously, and at the present time we have almost a guarantee of as large a yield as was really expected. It is safe to predict an average yield per acre, while, as we have before stated, the increase of acreage, under wheat the present season is from twenty-

grain; while the late sown is already suffering. In Los Angeles county much of the late sown grain will be cut for hay. The early sown promises a fair crop. Santa Clara county seems particularly dependent upon more rain. A dispatch from San José, March 19th, says: "If it rains within a week or two the crop will be as heavy as was ever harvested; if no more rain comes the crop will be a very poor one." Colusa county sends a report highly favorable, though like all other portions of the State more rain is desired here.

The grain in Napa county is supposed to be beyond the reach of injury from drouth or blighting winds, and all crops are reported as looking well.

On the tule land in Contra Costa county the grain is very promising. On the nplands the late sown is expected to be a failure. More of the wheat and barley than usual was early sown, and this is said to give assurance of a good crop.

The wheat and barley in Amador county,

Cranberries.

A subscriber at Carpinteria wishes to know where he can obtain the Bush cranberry. We cannot find it catalogued by any of our nurserymen, and learn by inquiry that it is not kept by them. The limited demand for the bushes does not warrant any outlay in cultivating them. A very fair quality of cranberry is native to Oregon, and, we believe, is also found in that portion of California bordering on Oregon, which could probably be obtained without much difficulty.

In our opinion, however, it would be the better way to grow them from seed. Procure a lot of good cranberries from the market, crush them, and let them remain in this condition until fermentation ensues; for, like tomatoes and some other seeds, they are not readily separated from the pulp without fermentation. As soon as the seeds separate readily from the pulp remove them and plant; for if they are allowed to remain longer in this fermenting mass they are liable to rot.

Although the cranberry fills a place among the good things of this life that nothing else can supply, it has never received the attention that has been bestowed upon fruits of less value. The wide difference in the quality of this fruit is owing to its good or ill fortune in having its lot cast in localities more or less favorable to its perfect growth; and when we get those that are particularly fine we should give credit to the soil and climate where they are grown, and not to the producer. This is not as it should be. Its habits should be studied more closely; its striking characteristics should be fostered, and its wants supplied; and those who attempt to cultivate it should not take as a basis what they know about its capacity for endurance, but give it a fair chance and opportunity for improvement.

When the seeds are ready for sowing, make a bed of good, fine soil, as you would for raising any garden plants. Sow the seed as soon as you can get it ready. If sown within a few weeks from the present time they will be fit for transplanting in the spring. In the succeeding spring, everything being favorable they will begin to bear.

We import nearly all of our cranberries, when we ought to raise all we want and more too. They will not do well in all parts of the State, and those districts that are proved to be the best adapted to most other fruits might not be suited to this; but, again, there are spots where many of these other fruits would not do well, but which would grow cranberries to perfection, making it a profitable business. On reclaimed tule or bottom lands they would undoubtedly do well. The islands, as we get into the fresh water country, would probably be the best places in the State for this fruit.

It would hardly be advisable to attempt to grow them in small quantities for the sake of variety, or to supply any local wants. When the proper localities are found they should be devoted exclusively to their culture, forming cranberry districts.

BARK-LICE.—A subscriber to the Press wants to know how to destroy bark-lice on his fruit trees. Follow the directions given in our paper two weeks ago, under the heading, "Keep Your Trees Clean." Wash the trunks thoroughly with strong soap-suds. No drugs or charms are needed. The vermin that overrun both the vegetable and animal kingdoms are never found where strict cleanliness is observed.

THE "NEW AGE."—This sterling organ of Odd Fellowship has got into new and commodious quarters. The publication and business office has been removed to No. 420 Kearny street, between California and Pine. We are glad to note the continued prosperity of the *New Age*.



CHAMPION DRAG SAW.

five to thirty per cent. over last year. We give below the latest crop reports from different sections of the great grain field of California:

In the San Joaquin valley strong northwesterly winds have prevailed of late, with threatenings of rain, which would be very desirable, though a full average crop is expected. Stanislaus county reports the condition of the crop as good. In Fresno county a week of northwesterly winds, and no rain, have damaged the grain somewhat, and the late reports put it as fair, only. Yolo county has had its share of north wind, but no injury is yet perceptible. In San Luis Obispo county the early sown grain promises an average yield, but the late sown shows need of rain. San Diego county reports favorable prospects for a good crop. In Sonoma county the weather has been cold, favoring root growth and stooling, and the prospect is reported as better than for many years, though for two weeks a north wind has prevailed, which, if it continues much longer without rain, may do serious damage.

From all parts of San Joaquin county the reports are extremely favorable. Wheat on the sand plains south of Stockton, and also on the black lands on the north and east of that city, is in good condition. In Livermore valley the prospect is encouraging for all but the late sown grain; and a little rain, coming soon, would ensure a good yield from even this. The summer fallowed grain in Solano county is unusually promising; the prospect of an abundant crop being better than for many years. A large portion of the grain was sown early, and that sown later is not yet injured by the drying north winds. The usual spring rains would ensure a large yield.

San Benito county does not present as favorable a report. The long continued north winds are very trying, to even the early sown

up to the present time, is in prime condition; the north wind thus far having caused no perceptible injury.

Tehama county reports the wheat crop as being a little backward at the present time, though not really injured. Rain only is wanted to ensure a good yield. The wheat fields of Calaveras county also offer a good showing at the present time, wanting, of course, a little rain like all the rest. Santa Barbara county would also like a little more rain, though it apparently depends largely on the coast fogs in such emergencies. The early sown and volunteer crop is reported as looking well. From Salinas valley, Monterey county, reports are received of a promising character; and, with the increase of area sown this season, a large amount of grain is expected from this valley the coming harvest.

While the above glance at our prospective harvest will not warrant any estimate as to yield, surplus, prices, etc., it will, we apprehend, afford such information on this important subject as the farmers throughout the State, and people generally wish to obtain. Counter influences are already at work spreading exaggerated reports about the present condition and prospective yield of the growing crop. An attempt was made a few days since to create an excitement in the Chicago and New York wheat markets, on the strength of very discouraging reports concerning the condition of the wheat crop of California. This attempt, however, was at once frustrated, by parties in New York telegraphing to San Francisco and ascertaining the facts in the case.

On the other hand prospective buyers are evidently trying to depress the market, by making people believe that the incoming crop of California wheat is going to glut all the markets in the world.



CORRESPONDENCE.

[The RURAL PRESS, in opening the columns of this department to its correspondents, does not desire to lay before its readers anything which is not in keeping with its character and position as an agricultural and family paper. Facts are always thankfully received; and suggestions and matters of opinion on subjects connected with agriculture are also acceptable; though correspondents are to be understood as speaking for themselves and not for the PRESS.]

In and About Los Angeles.

MESSRS. EDITORS:—I send you a few brief and imperfect notes of travel. On my way from Wilmington to this place, I stopped at Compton, the half way station between two points. With the exception of a narrow strip of alkali land around the depot, the soil is very good. They have at this place a good school and church. But what speaks most for the morals of this community is that no liquors are sold in the neighborhood.

The region is well-watered, having some of the best artesian wells to be found in the county. Good unimproved land is worth from \$20 to \$40 per acre, and this is probably as low as it can be had anywhere in the county, where water can be found. By the way, strangers wishing to purchase homes, cannot be too cautious. Large tracts of the land in this county, require irrigation, particularly in dry years. There are places where water cannot be obtained by boring.

It is likely that here as well as elsewhere, the stranger is occasionally "taken in." In the vicinity of Compton, every variety of cereal and vegetables can be produced, yielding abundantly, and many kinds of fruits will do well.

As is evident that the soil is adapted to the rapid growth of trees, there is a large scope of country here—covered with the willow—that was entirely bare six years ago. Your friend Mr. A. M. Peck as he informed me, is now selling this growth of timber from his land at the rate of \$50 per acre for firewood. It will soon grow up again if left undisturbed.

A few words in regard to the City of the Angels and its surroundings. So much has been written in regard to its climate, its soil, its orange groves and vineyards, that little is left to be said. Without doubt, there has been some exaggeration as to the large yield per acre in dollars and cents, in some instances, and a loose rein has been given by writers to the imagination in some of their detailed descriptions, but even to my matter-of-fact eyes, it does seem really a place, wonderful for beauty of landscape, for fertility of soil, and the great variety and abundance of fruits and flowers; and that in these respects too much could scarcely be said.

On the Wolfskill ranch we saw orange trees forty years of age, and were informed that occasionally a tree would bear as high as 3,000 in a season; and that one lot of 1,600 trees, 20 years age, would net this season \$10,000 above all expenses. It takes about ten years for orange trees to bear from the seed, and budding is now resorted to for the purpose of getting earlier, sweeter and larger fruit. Mr. J. W. Wolfskill as an experiment budded the orange into the citron, with the view of increasing the size of fruit; it did prove to be very large, and he gave it as his opinion, that it was owing to the large size that fruit attains.

In fact more in this connection, I witnessed the transplanting of lemon trees in this neighborhood from fifteen to twenty years of age, and was informed that they would yield fruit in two years. It astonished me that they could live.

Los Angeles March 13, 1875.

Land in Contra Costa and Alameda.

MESSRS. EDITORS:—If not intruding, it appears to me that there is a great deal said in regard to land and fine country away from home, for so little to be said of the many acres of valuable land nearer home. For instance, the portion of Contra Costa and Alameda counties beginning at or near Bay Point, east of Pacheco six or eight miles, following the range of mountains south and east to the Livermore valley, in Alameda county, and including all that part of the two counties to the straits of Carquinez and San Francisco bay. There is no part of the State that can boast of as few failures in crops as old Contra Costa. And for hill and pasture lands it cannot be surpassed anywhere in the State. The land is selling from twenty to fifty per cent. less than in any part of the State. If this is doubted by any one they are respectfully invited to visit the lands and see for themselves, and I am sure they will agree with me. All the depreciation of our country arises for want of enterprise.

Danville, Contra Costa Co., March, 1875.

[We are obliged to "Granger" for calling attention to lands for sale in Contra Costa Co. Now will you tell us the price of land that sells from twenty to fifty per cent. less than in any other part of the State? That's the convincing point that our readers want to see. EDS. PRESS.]

California Woods — Useful and Ornamental.

MESSRS. EDITORS:—A correspondent's inquiry of J. C. C., as to where specimens of California woods can be obtained for the purpose of manufacturing presents for Eastern friends, has been accidentally overlooked.

In reply I would say that A. Sinning of Coulterville, lately in the Yosemite Valley, would be the best person to apply to for strips of rare woods, suitable for paper folders. I have obtained strips and very beautiful veneers from Strable & Co., billiard table manufacturers in San Francisco, which I have had finished at cabinet makers, or in ordinary carpenter shops. Portfolio covers, made of Oregon cedar, and ornamented with photographs of the same tree are cheap and pretty. Redwood is rather dark, and is improved by g'uing on a light border of some other wood which makes the frame to the picture. For paper folders, the small stereographic photographs to be had at Houseworth's or Watkin's, of the Big Trees, yellow pines, sugar pine and other Sierra trees are large enough. They should be put on with the decalcomanie process. Below is a list of dark and light colored woods suited to ornamental works. Two years ago, my son collected thirty species of woods in and around the Yosemite, some of which exceed in beauty any foreign woods I know. The two-leaved pine is exquisitely marked, and watered like the richest brown moire antique. Manzanita has the lines of old wine. "Granite" is curiously waved with brown and amber. When we get our shops for the education of female artisans many beautiful pieces of cabinet work will demonstrate the aptitude of our native woods for the finest uses of art. But here is the list: Light woods—Willow, Maple, Frangula, (very fine spotted); Torreyia, (California nutmeg); Ceanothus, Silver Fir, Box, Oregon Cedar, Yellow Pine, Two-leaf Pine, Madrone, Buckeye. Dark woods—Manzanita, Granite, Big Tree, Black Oak, Mountain Mahogany, Bear Berry, Live Oak, Red Oak, Redwood (root), Alder. This list is by no means complete, our coniferous trees alone furnish more than thirty different kinds. These suggestions will do for a beginning.

JEANNE C. CARR.

Crops in Los Angeles County.

MESSRS. EDITORS:—Thinking you would like to know how crops are looking in this county, I will state they are poor; and present prospects are far from being as favorable as they were some four weeks ago. The cold weather has kept them back, and now the north winds are drying the ground very fast. In the vicinity of San Fernando there will be a few fair crops, also around Spadra; but from what I have seen, I do not think there will be over one-half crop in this county. Rain fell here yesterday, but in one hour the north wind had dried the ground, and dust was flying in clouds. Very few orange trees have blossomed yet this season, and in conversation with farmers in this county, they seem to be despondent, and say they think rain cannot do them much good this season.

I shall start back in a day or two, and will give you an account of what I may see along the road overland towards home. I will say the farmers are brave, and some try to believe they will have a crop, yet all say the counties above here are better than this to farm in; and many who have farmed in Sonoma, Alameda and other counties, say those are the places to farm. This may do for fine homes and orange groves, but not for large farms to raise grain.

S. P. DOANE.

Los Angeles, March 19th, 1875.

Still Further from Tulare County.

EDITORS PRESS:—In your issue of March 6th, under the head of "Cheap Land for Alfalfa," you make a mistake in location in the county, but hit on the right land, which is situated in Tulare county instead of Kern, twenty miles west of Visalia. King's river belongs to Tulare county, and is a large, never-failing stream, heading high up in the snow-capped mountains near Mount Whitney. The People's canal and the Last Chance ditch are supplied with water from said stream. The lake side and settlers ditches are from Croas creek. The lands which they are designed to irrigate, are not surpassed in the State, and are owned by actual settlers. The Southern Pacific railroad having failed to make this branch of road or get a change of route. The Stockton and Visalia company own no land here, nor never did. WILTOME.

Joneso, March 13, 1875.

FROM HYDESVILLE, HUMBOLDT COUNTY—EDS. PRESS:—We have had a splendid rain for the last week. Grass and grain looking nicely. The weather is warm and pleasant. Our farmers are only about half through seeding. Seeding in this county lasts from November to the middle of May. This has been the driest winter in this county for at least ten years.

M.

March 9, 1875.

Anaheim and Vicinity.

MESSRS. EDITORS:—As a town and locality we are, and have been, depending more upon our own merits, as an advertisement to new comers, than any other section of Southern California and have consequently enjoyed a steadier and more healthful growth. Many of our southern towns have been built up very rapidly, and not having anything like surrounding country enough to make them self-sustaining, must be kept alive by newspaper stimulant, as long as that will prove beneficial, and then come to a stand still.

Under an act passed by our last legislature, providing for a more perfect system of irrigation in Los Angeles county, we are about commencing the construction of a large canal, which will supply water enough to irrigate 25,000 acres in the neighborhood of Anaheim. The land within the district to be watered is taxed for the construction of the canal and the amount per acre will be about \$1.75. After this ditch is completed, unimproved land which could have been bought for \$25 per acre, previous to the voting of the tax, cannot be had now for less than \$60; and even this last figure is extremely low, when compared with prices at which land is selling in other parts of this county, and where water is a scarcity.

The writer having passed several years at the various health resorts of Europe, and this country, finds from experience that the climate of Southern California surpasses all; and that as a place of permanent residence, Anaheim possesses decided advantages over any other place in this part of the state.

The location of Anaheim is in the center of a large and fertile plain, (called by some a valley as it is partly surrounded by hills) and about twelve miles from the coast. In winter we do not have the heavy frosts which most localities have, and which are very detrimental to the growth of semi tropical fruits, and in summer we are free from the fogs and chilling winds which towns on the coast are subject to. There being no obstruction between us and the sea, we have all the benefits of the sea breezes, modified to a pleasant temperature by a passage of twelve miles over the land.

The greater part of our soil is a rich sandy loam, and having no low marshy ground to produce miasm, we are free from fever. Even when soil of this description is irrigated, the water is rapidly absorbed, and there is no chance for the formation of malaria.

It has been demonstrated beyond a doubt that deep rooted plants require but little water, providing the ground about them be well cultivated, and kept free from vegetation.

Within a few months the Southern Pacific railroad has been completed to Anaheim from the upper end of the county, and in a short time there will be unbroken communication by rail, between this place and San Francisco, which will be a great convenience to those who dislike travel by sea. But our grain and other heavy freight must continue to be shipped by water; and a wharf to take the place of the present lighter company at Anaheim landing, is soon to be constructed, and a narrow-gauge railroad to this town will be the result.

At present there are about 2,000 acres of bearing grape vines in this vicinity, and every year hundreds of acres of vines and trees of all kinds are being planted, so that in a few years Anaheim will be the center of a mammoth semi-tropical orchard.

Our future cannot be any other than a bright one; and those who buy property in our section now, will realize 100 per cent. on their investment within two years, as the exorbitant prices of most places are not being asked here. But things will find their level, and prices here must soon correspond with other places.

G. F. M.

From San Luis Obispo County.

MESSRS. EDITORS:—The prospects of San Luis Obispo county were never more flattering than at present. The farmers are sowing a larger breadth of land than ever before. Dairymen rejoice at the prospect of abundant pasture, rendered a certainty by the rain-fall of the past few days. With perfect titles, good soil and a delightful climate to offer those seeking homes, we hope to double our population the present year.

MARY E. IRWIN.

Cambria, March 10, 1874.

From Coloma.

MESSRS. EDITORS:—The weather is delightful the rain of last week came just in time, and will doubtless insure a good hay crop, which is about all we care to sow for in this locality, though some good grain is raised here. Indications are now favorable for a bonnetous fruit crop, which is our main dependence, and if realized will set most of our fruit growers on a sound footing.

In conclusion, I would say to all who are in search of comfortable homes, in a happy and contented community, and where the very best of fruit is grown in great abundance, and a healthy climate, this is the place.

Fraternally yours, A GRANGER.

Coloma, March 10th, 1875.

Alfalfa Parasite, Etc.

MESSRS. EDITORS:—We have sent you the long promised box of apples this day. Also enclose an order for \$4 for the RURAL PRESS, arrears and advance. We were thinking today that the man that reads your noble paper, and 'gets' in arrears, either chews tobacco or drinks whisky. We distribute every copy in the Eastern and Middle States, which has been the direct means of bringing to this coast two families with plenty of money, also five single men, all now located, or seeking location. So friends keep the ball moving, and send your friends and acquaintances your papers as soon as read. When I get an extra good copy, I go around to my neighbor and beg him to send.

I have been reading the charges that the Press and other papers have made against Chili for the hated alfalfa parasite. Now, Sir, if you would come with me, I can show you acres of it on the river ravines and north hill sides, that was as flourishing twenty years ago as to-day. It very seldom gets on our upland. Ten years ago my attention was called to it by my little girl throwing a few sprigs into a rose bush. In one day it showed signs of life, and in four weeks the rose bush was completely enveloped. Had no alternative but to cut the bush close to the ground. I see last year that it got to growing in a neighbor's alfalfa field; it covered about a rod square, and fire and sword could not do worse.

A question or two, and I will not trespass farther. What degree of light or darkness is best for a milk room, or to facilitate the rising of cream? If apples are quoted at \$2 (best) in all the papers, and I send down a cargo (that could not be finer) and I only get \$1.20 for them, how much would they have to be quoted to bring \$2; (conundrum). C. T. HARRIS.

West Point, Calaveras Co., March 1st, 1875.

[We do not object to the free admission of light to the milk room when the rays of the sun do not fall upon it. The question of light and heat, however, in connection with milk, is one upon which there is a wide difference of opinion among the most experienced butter makers. Let us hear from some of our dairy friends on this subject.]

Now in regard to the apple conundrum: The box sent to the Press by our kind correspondent contained some as fine apples as we ever sampled; but there were a few of inferior size and quality—sufficient to exclude the box from strictly a first-class apple. Uniformity in excellence is a point which producers are very apt to lose sight of. A lot of apples uniformly as good as the best of those sent us, would, we are assured, be held by the dealers, at the present time, at \$2.50 per box; but, as it understood, they must be first-class weight also, being fully 60 pounds to the box. Taking it all in all, fruit, before it can enter this class must submit to a severe ordeal; formed of rules which are extremely rigid but at the same time are perfectly legitimate. There is but little of such fruit now in market. As to what proportion of any given price would go into the hands of the producer—the conundrum proper—we can only say that dealers announce that eight per cent profit on invoices received is their standard rate.—EDS. PRESS.]

The Plummer Fruit Dryer.

EDITORS PRESS:—I have read in your issue of the 18th inst. your description of Plummer's New Fruit Dryer, and hope it will prove to be all that is claimed for it. You make one statement, however, that will hardly stand the test of an examination, to-wit: That this dryer "differs from other dryers in several particulars, and it is the only one in which a horizontal revolving motion is accomplished." By referring to the Patent Office Reports for 1872 and 1874, you may find patents for rotary fruit dryers, granted to Chas. A. Boynton, of Vine-land, N. Y., and to H. Julian Allen, of Sturgis, Michigan. I have seen Mr. Boynton's dryer, and have a description of Mr. Allen's, and think the *modus operandi* of both is similar to Plummer's, with perhaps a slight variation in the machinery. My recollection is that the Boynton contrivance was a complete failure, and have yet to hear of the successful introduction of the Allen process.

I beg to assure you that I have no interest in any fruit dryer, but have given the subject considerable attention and recognize its importance to California.

JAMES T. GILL.

San Francisco, March 17, 1875.

The Riverside and Other Colonies.

MESSRS. EDITORS:—Everything looks encouraging for the Riverside, New England and Santa Anna colonies. The present owners of these lands are making two fine ditches to irrigate their lands, and are selling large quantities of land at reasonable rates. Small grain crops look finely. The Southern Pacific Railroad is rapidly approaching us from Los Angeles, and every valley is jubilant. Thousands of common fruit trees are being planted, and preparations are being made to set out other thousands of semi-tropical trees as soon as the proper season arrives. "The good times," so long looked for by us has come.

O. TRAVERS.

Co-operation in Building New Homes.

The Pacific coast offers rich inducement for immigrants single handed who have little capital and a great deal of fortitude. It has room for whole colonies even in its very nooks and corners. Which are the best localities can only be decided by those who thoroughly know the wants of the immigrants and will examine the situations offering. The following article has many hints and much encouragement for those who feel an interest in the welfare of our goodly land and its advancing minds and hands.

Vineland as an Example.

Often, since the Lompoc and Centinella projects have attracted the attention of our people, I have been reminded of the days when Mr. Landis' circulars about Vineland began to inspire the homeless with the hope of a home. Mr. Greeley's advice to thousands of honest and capable young couples in the Eastern cities and their suburbs, to "go West," was apparently as near to their practical needs as if he had said, "Be virtuous, and you will be happy," to a starving man! Unused to farming, dismayed at the cost of emigration, of tools and stock—at the immensity of the labor and risk, and perhaps dreading most of all the isolation of detached farming communities, Mr. Greeley's recipe never produced any perceptible effect upon the over-crowded population of cities.

We were half-yearly residents of Philadelphia for some years—about the time when Mr. Charles K. Landis fixed his eye upon "the Barrens" as a place of profitable investment; and we occasionally dropped down to Cape May for a week of refreshment from the summer's heat. Only a sagacious mind would have pitched upon such a region as the New Jersey barrens for the site of the most prosperous community, all things considered, in the United States.

It was a rolling sand prairie, so light and thin that without summer rains it would have been blown away centuries ago. Small scrub pines and oaks covered it, very little of it had ever been cultivated, from its unpastured wastes only checkerberries and bunches of trailing arbutus came into Philadelphia market in early spring. Now, California itself cannot outvie in size and quality the fruit shows from Vineland to be seen daily on Market street, the luscious strawberries, peaches, melons—the fresh vegetables. We must look to our laurels when we compete with their canned fruits in the Centennial Exposition.

When Mr. Landis bought his 16,000 acres of the railroad company and set himself to laying out a town, the Chester county farmers laughed in their sleeves. The place could be abundantly watered it was true; but "all the nature in the State of Pennsylvania" was apparently necessary to ensure its productivity. There was much speculation as to whether it was not merely a dodge of the railroad to raise money on worthless land, from people whose eye teeth had never been cut.

The site of the town was central on the track, 34 miles from Philadelphia, and was laid out in lots of from one to four acres. Outside the limits it was divided into plats of from ten to fifty acres, according to the distance. What Mr. Landis gave for his purchase I do not recollect; but for years he never raised on his original price—\$25 per acre. He gave credit for two-thirds of the purchase money—obtained a "no fence law" for the entire domain—made a few excellent roads, and settlers began to appear. The terms of the sale included an agreement to put up a dwelling house within a year, at a certain distance from the street; plant shade trees on the borders, clear and put in tillage a certain proportion, and the keeping of a strip of roadside neatly laid down to grass. The streets were thus made boulevards from the beginning, to which each year will give additional beauty. These street improvements were to be perpetually maintained, if neglected by individuals, at the cost of the property owners; only live fences were used. Speculation in uncultivated lands, which has been the bane of other settlements, never has occurred in Vineland, the advance in value invariably being upon the improvements of actual settlers, whether permanent or otherwise. Four cardinal principles were subscribed to by every purchaser, which Mr. Landis had laid down for his own guidance.

1. No land to be sold to speculators, but to persons agreeing to improve in a certain time and way.

2. No fences to be required.

3. The public sale of intoxicating drinks should be prohibited, by an annual vote of the people.

4. The maintenance of the best schools.

In a speech before the legislature of New Jersey last year, Mr. Landis says his temperance regulation was made, not from philanthropy, "but simply from the conviction of its importance to the success of the colony. I was not a temperance man myself," he says, "in the total abstinence sense of the term. In conversation with the settlers I never treated the subject of liquor-selling as a moral question—probably not one-tenth of the voters of Vineland are total abstinence men. The law has

been practically in operation since 1861, though the Vineland local option law did not pass till '63. The vote has always stood against license by an overwhelming majority, there being generally from two to nine votes in favor of liquor selling."

In twelve years there was a population of 11,000, mostly from New England. Fourteen thousand, and within the last year 23,000 acres have been added to the original tract. This colony was started just at the commencement of the civil war, and has paid \$60,000 of the debt, besides sending its quota to the field. It has built 178 miles of excellent roads, 20 school-houses, 10 churches, 4 post-offices, 15 manufacturing establishments; besides shops and stores, such as would be required by a similar population elsewhere. In the importance of its agricultural productions Landis township ranks the fourth in New Jersey. There are seventeen miles of railway on the tract and six stations.

If any one would know whether temperance and education are sufficient safeguards against crime let him read the statistics of the police and poor expenses of this settlement for the last six years:

Police Expenses.	Poor Expenses.
1867.....\$ 50	1867.....\$400
1868.....50	1868.....425
1869.....75	1869.....425
1870.....75	1870.....350
1871.....150	1871.....400
1872.....25	1872.....350

The sheriff of Vineland says the poor tax in the township amounts to five cents per annum for each inhabitant, the police expenses to half a cent! Think of this, good friends at Lompoc, Centinella, and other colonies to which the tide of immigration will center; think of it as you are planting your orchards and as your houses go up—think of it and realize how much better and easier it is to create a model town than to reform one. You know how the women will vote in this matter without the trouble of counting.

In the forming of new colonies the last should be first in respect to results, for it can avoid the mistakes and profit by the experiences of the rest. A diversity of employments should be aimed at in the community and for the individual; not for regular business perhaps, but to multiply resources in case of need. This brings out and utilizes all the faculty of the community.

It would be a delightful indication of the nearness of the millenium if instead of half a dozen struggling churches there could be one "Society of Christian Worshipers," willing to work and pray together, until their growth compelled them to divide and colonize.

Then the town hall! What a sweet, wholesome, instructive place that should be! Like the town hall of Concord, Mass., pride of Mr. Emerson, the Parnassus of the country folk thereabouts, with its public library, its museum, its fine social assembly and lecture room.

Let the people live in shanties and worship in tents as long as they must, until their public and private abodes can be made fit for the brave men and good women who will make of each new colony the polished corner-stone of a new commonwealth.

JEANNE C. CARR.

SHEEP AND WOOL.

The Wool Market.

NEW YORK, March 21.—The *Shipping List*, in speaking of the wool market to-day, says that throughout the whole market there is a feeling of dissatisfaction and disappointment. Manufacturers, noticing that prices are weak and declining, avoid the market as much as possible, coming in only to supply their daily wants. This has assisted the depression, and holders show an anxiety to dispose of their stocks even at prices below those nominally current, as the indications point to a still further decline. This weak and unsettled feeling can be traced directly to importers of Australian, whose agents there have purchased nearly 40,000 bales, of which the principal portion is now on the way, and considerable of which is very near to hand. It costs about 54 cents to lay Australian down either here or in Boston; and in the latter city two cargoes have arrived there are being offered freely at 50 cents, and a sale has been reported as low as 49½, but it failed of confirmation. Holders of fleece wool here are asking 53 cents, but it is understood 52½c. will buy it. Fall California is still weak, and prices are wholly nominal; spring continues quiet, but prices remain quite steady. The sales for the week are: 216 bales Montevideo at 35@36 cts.; 100 bales Cape, private; 150,000 lbs. Pulled, do., 50 cts.; 100 bales Donskoi, 100 do. Greek, and 28 do. Persian, on terms reserved; 400 do. Fall California at 18@24 cts.; 50,000 lbs. Spring, do. 28@34 cts.; 135 bales Scoured do. 67½@78 cts.; 10,000 lbs. Pulled do. 42½ cts.; 5,000 lbs. Eastern Texas, 33½ cts.; 1,000 lbs. medium do 35 cts.; 1,000 lbs. burry do. 27½ cts.; 5,500 lbs. do. to choice scoured do. 58@75 cts.; 20 bags Western do. 28 cts.; 2,500 lbs. Eastern Oregon, 39 cts.; 15,000 lbs. X Ohio, 50 cts.; 8,000 lbs. medium XX do. 54 cts.; 10,000 lbs. Michigan do. 53 cts.; 7,000 lbs. Wisconsin do. 51@53 cts.; 16,000 lbs. unwashed Western do. and 3,500 lbs. washed combing, private; 4,000 lbs. super pulled, 45@51 cts.; 150 bags X do., part at 48 cts.; and 90 bags super do., 14 do. black, and 10 do. No. 2, on terms not made public.

Boston, March 21.—The condition of the wool trade remains unchanged. There has

been a fair amount of business doing, and quite a large number of buyers are in market, attracted by the comparatively low prices of fine fleeces, on which further slight concessions have been made, in a few instances, to effect sales; but otherwise prices are unchanged. Medium fleeces, combing and delaine fleeces, and good lots of super and X pulled, still meet with steady sales and are quite firm; but other kinds are purchased very cautiously by manufacturers. Some lots of X and XX Pennsylvania have been purchased as low as 52@52½c., but it would be difficult for buyers to duplicate these lots, except for wools out of condition. Three hundred and sixteen thousand pounds of Ohio and Pennsylvania fleeces have been sold, including choice No. 1 ss high as 58c., and X and XX at 52@55c. per pound; a fair quotation for XX wools is from 52½ to 54c. per pound, ss to condition. In Michigan and other fleeces scarcely anything has been done. Combing and delaine fleeces are scarce and wanted, and this description would meet with ready sale. Pulled wools have been in demand, the sales having been 235,000 pounds; and good supers and X still continue to sustain very full prices. The sales of the week include Ohio and Pennsylvania X, double X and No. 1 at 52@58c.; Michigan fleeces, 50@51c.; Western and other fleeces, 47@51c.; washed combing, 50@60c.; Oregon delaine, 47c.; unwashed combing, 45c.; scoured, 50@67½c.; super and X pulled, 45@57c.; Spring California, 25@32c.; Fall California, 18@25c.—*Call*.

POULTRY YARD.

The Number of Eggs in a Hen.

A curious point of inquiry among zoologists has been for a long time, how many eggs are there in the ovary of a hen? To determine this, a German naturalist, a short time since, instituted some careful investigations, the result of which showed the ovary of a hen to contain about 600 embryo eggs. He also found that some twenty of these are matured the first year, about 120 during the second year, 135 during the third, 114 during the fourth, and during the fifth, sixth, seventh and eighth years, the number decreases by twenty annually, it consequently follows that after the fourth, or at most the fifth years, hens are no longer profitable as layers, unless it may be in exceptional instances.

Some interesting experiments were made a short time since in Germany, to determine the comparative fecundity of ducks and hens—that is, from which of the two the larger number of eggs can be obtained in the same time. For this purpose three hens and ducks were selected, all hatched in February and nourished with suitable food. The following autumn the ducks had laid 225 eggs, while the hens laid none. In the next February the laying season began again with the ducks and continued uninterrupted till August. They showed no inclination to sit, but became very thin, although they afterwards fattened up somewhat. The total number of eggs laid by the hens amounted to 257—or 86 eggs each—and 392—or 131 each for the ducks. Although the eggs of the ducks were rather smaller than those of the hens, yet they proved to be decidedly superior in nutritive material, so that the superiority in productiveness was decidedly with the ducks.

In regard to the means or possibility of deciding the sex of eggs, much difference of opinion exists. But M. Genin, in a communication to the French Academy of Sciences, says on this subject that he is now able, after having investigated the subject carefully for several years, to state that all eggs containing the germ of males have wrinkles on their smaller end, while female eggs are smooth at the extremity.—*Rural New Yorker*.

Good Prices for Improved Poultry.

There is a constant and rapidly increasing demand for improved poultry, insuring remunerative returns to those who engage in the business with proper care; and I am convinced that two years hence, on this coast, single birds will be sold at prices which to-day would be considered extravagant for a trio. In England and in the Eastern States single cocks have been bought at from one to three hundred dollars.

The business is in its infancy in California; we have not as yet (1875) had a single poultry show; and, though some unscrupulous sales of inferior birds have disgusted the purchasers with fancy poultry, the demand is constantly increasing. With a small part of the money invested, and with one-fifth the care and trouble and expense demanded by any four-footed animal on the farm, poultry will pay ten times as much profit. The time is rapidly approaching when a fat fowl will be sold by the pound at a far higher rate than a poor one; when a plump Brahma of 10 pounds will be worth in the market (20 c. per lb.) \$2, while a scrawny three-pound dunghill will be dull of sale at (15 c. per pound) 45 cents.

Even at our country stores they command better prices. A farmer shipped through J. A. McClelland & Co., grocers, Napa, some half-grown fowls, part Brahma only, between four and five months old, which sold for \$9 per dozen, and I obtain for all my half breeds at least 16½c. per pound, or an average of \$1 each.—*Eyre*.

THE DAIRY.

Points in Butter-Making.

At the recent meeting of the Vermont Dairy-men's Association there was an interesting discussion concerning several points in butter-making, reported by the *Utica Herald*, as follows:

Mr. Arnold was asked how he would build a milk room for a farm dairy. He replied that where the milk was usually all right and conditions favorable he would need only a cheap, tight room, with double walls to enable him to control the temperature. As for setting, he preferred large pans, large enough to hold a whole milking. It is time to skim when the finger can be drawn through the top without having the cream close behind it. When cream will do this it is about ripe enough to churn. When cream foams in the churn it may be cured by warming. Cream should not be churned as soon as taken from the milk. It should be stirred together and allowed to ripen all alike. This will occur in twelve hours or so. But cream should not stand until whey is formed in the cream jar.

Freezing does not materially hurt sweet cream. In old cream the result is an oiliness to the butter. In thawing out frozen cream heat very gradually. It does not hurt cream to freeze for weeks, but it must not freeze and thaw and freeze again, for this is harmful. Sometimes, however, a mere freezing will accomplish decomposition of the cream. Preserving the grain of the butter consists in keeping whole the structure which is formed by the coming together of the minute particles in which the butter comes. When butter is examined with a glass it appears crumbly if the grain is perfect. It has almost a granular appearance.

A CURE FOR SUCKING COWS.—Occasionally one has to bear the vexation of possessing a cow that has acquired, and persists in, the profitless habit of sucking herself. A neighbor suggested a most simple contrivance, and sent me a pattern to make one by. It consists of a piece of oak board about four inches deep by eight long, and half an inch thick. The opening between points in its side is about half an inch wide, according to the animal's nose, from which it hangs when in use. It requires a little ingenuity to attach it to the nose, but if properly made, it will remain suspended until taken off, unless it accidentally gets broken. The opening must not be made too wide. A cow soon learns to accommodate herself to it, and it is no detriment to her when grazing. She pushes it before her—swims it, as it were, along the grass. My cow was effectually cured by this nose board, and I can with confidence recommend it in all instances where a cow practices sucking her own milk.—*Ec*.

BRINE FOR PRESERVING BUTTER.—The *Dutchess Farmer* says: To three gallons of brine strong enough to bear an egg, add a quarter of a pound of nice white sugar and one tablespoonful of saltpeter. Boil the brine, and when it is cold strain carefully. Make your butter into rolls, and wrap each roll separately in a clean white muslin cloth, tying up with a string. Pack a large jar full, weight the butter down, and pour over the brine until all is submerged. This will keep really good butter perfectly sweet and fresh for a whole year. Be careful not to put upon ice butter that you wish to keep for any length of time. In summer, when the heat will not admit of butter being made into rolls, pack closely in small jars and using the same brine, allow it to cover the butter to the depth of at least four inches. This excludes the air and answers very nearly as well as the first method suggested.

SOWED CORN FOR MILK COWS.—Recently during a visit in the western part of New York, a farmer who sent his milk to a cheese factory, was complaining of the shrinkage of milk and shortness of feed. He had plenty of sowed corn. "Why don't you feed it to your cows?" I asked. "Because if I do the factory will not receive my milk." "Why not?" "O, I don't know; they have such a rule and obligate every farmer sending milk to the factory not to feed sowed corn." Now, I should like some of the *Rural New-Yorker* readers to give a good reason for this action on the part of the cheese factory, if they can. If sowed corn injures milk for cheese manufacture, it is time it was generally known.—*W. S. G., in Rural New-Yorker*.

AN APPROPRIATE EMBLEM.—Bed-tead designs might more frequently make use of the lotus in these carvings. It is one of the most appropriate designs which can be taken from the vegetable kingdom. Pliny says of these plants:—"It is reported when the sun goes down, their heads, which are like those of the poppy, close up with the leaves and sink under water, where they remain shut up until the morning, when they appear above the surface and open."

GLUE TO RESIST FIRE.—The *London Furniture Gazette* gives this recipe: Mix a handful of quick lime in 4 ozs. of linseed oil; boil to a good thickness, then spread on plates in the shade and it will become exceedingly hard, but may be easily dissolved over the fire, and used as ordinary glue. It resists fire after being used for gluing substances together.

PATRONS OF HUSBANDRY.

STATE GRANGE HEADQUARTERS.

I. G. GARDNER, State Agent; Executive Committee Rooms; Fruit Growers' Associations, and Farmers' Mutual Life Insurance Company, all at No. 6 Liedersdorf street. W. H. BAXTER, State Secretary, at Grangers' Bank, 415 California street, S. F.

NOTICE TO STOCKHOLDERS OF THE GRANGERS' BANK OF CALIFORNIA.

At the meeting of the Directors, on Feb. 9th, the following resolution was passed:

That all assessments due and not paid on Feb. 1st, 1875, shall be charged interest at one per cent. per month from that date till paid. It will be to the interest of all delinquents to give this notice prompt attention.

Also the following resolution was passed:

That on all stock taken on and after the first day of April, 1875, a premium of one per cent. per month will be placed, reckoning from Aug. 1st, 1874, on all assessments payable up to the time the stock is taken.

F. A. CRESSEY, Sec'y.

San Francisco, Cal., Feb. 9th, 1875.

Secretaries will be supplied with a printed list of subscribers for this paper upon sending a list of their offices within the range of their Granges. Also with blank reports, etc., for clubs.

Grange Directory.—A full list of officers of the State Grange, Deputies, names of Councils, Subordinate Granges, Masters and Secretaries will appear in his department on the first Saturday of each month.

For the Nebraska Sufferers.

Following is a report of cash received by Bro. Baxter, from sundry Granges, on account of Nebraska sufferers, to March 8th, 1875, and not, we believe, heretofore reported in these columns:

From Badger Flat Grange, \$13.50, received Feb. 15th; from Lower Lake Grange, \$40.00, received Feb. 23d, and both amounts forwarded Feb. 24th.

From Santa Clara Grange, \$30.00, received Feb. 24th and forwarded Feb. 25th.

From Tomales Grange, \$20.00, received Feb. 26th and forwarded Feb. 27th.

From Santa Clara Grange, \$136.00, received March 2d and forwarded same day.

From Elk river Grange, \$33.00, received March 11th; from Cambria Grange, \$33.60 received March 11th, and both amounts forwarded March 16th.

From Antelope Grange, \$57.60, received March 11th and forwarded same day.

In Memoriam.

To the Worthy Master, officers and members of West San Joaquin Grange, No. 3, P. of H.: Resolutions of respect to the memory of our worthy Brother, John Thompson, who died at Los Banos February 14, 1875:

WHEREAS, This Great Master of the Universe has called from us here below to eternity above our beloved Brother, John Thompson, and passed him, we trust, to a higher and happier degree of enjoyment,

Resolved, That while we deplore the loss of our Brother, and shall miss him in our meetings and social gatherings, we bow in submission to the will of the Master above, feeling that our loss is his gain.

Resolved, That we extend our sympathy to the many sorrowing friends.

J. QUACKENBUSH, Sec.

March 13, 1875.

In Memoriam.

WHEREAS, It has pleased the Great Master above to remove from our fraternal circle below to a higher and happier circle above, our beloved Brother W. W. Maxey, Worthy Master, who died at the city of Los Angeles, March 3d, 1875. Thus a blight has dimmed our circle—a link broken in our Grange.

Resolved, That in the death of Brother W. W. Maxey, Worthy Master Azusa Grange, No. 94, P. of H., has lost a true Patron and a firm friend.

Resolved, That we extend to the bereaved family our sincere sympathy in this their great affliction, and as a token of our respect that the members of Azusa Grange No. 94 wear the usual badge of mourning for thirty days.

Resolved, That a copy of these resolutions be sent to the family of deceased, Los Angeles Herald and Pacific Rural Press.

J. W. CASEY } Com.
O. S. JUSTICE }
J. C. PRESTON } Sec'y.

MARTINEZ GRANGE.—Brothers Marks and Baxter visited Martinez Grange on Saturday, of last week, in the interest of the Grangers' Business Association. They had a very pleasant meeting, and a liberal subscription was obtained to the capital stock of the Association. They report a pleasant visit to the gardens and orange grove of the Master, Dr. Strenzel.

ALL ARRIVED.—We understand that all the grain ships loaded at this port for the Grangers, by Morgan & Sons, have arrived safely at their port of destination. The fact of their safe and prompt arrival will no doubt greatly hasten the adjustment of the business accounts of that firm with various wheat growers throughout the State, who shipped through them.

THE GRANGERS' BANK.—But a short time remains to secure stock in this bank without paying a premium, as will be seen by a notice at the head of this department of our paper. The bank is in good hands, and doing well for itself and patrons. Those who intend to take stock will regret it if they delay till April 1st.

Constitution of the Order of Patrons of Husbandry.

The following Constitution of the National Grange of the Patrons of Husbandry, adopted at the seventh annual session of the National Grange, February, 1874, has since been ratified by three-fourths of the State Granges, and was officially announced as so ratified by the National Grange at its recent meeting at Charleston.

Our readers will observe by comparing it with the Constitution as it existed before the meeting at St. Louis, that the new Constitution as herewith given changes entirely the status of Past Masters and their wives, as members of the National Grange and of State Granges. Formerly, as honorary members of these bodies, they could attend at their own expense, take part in debate, serve on committees, be eligible to office, in short, be active members in every way, except to vote. In the National Grange, under the old law, if it was deemed expedient to appoint them on standing committees to report at the next session, it could be done, and their expenses paid out of the treasury. Under the new law all this is changed. In State Granges Past Masters and their wives can now attend if they wish to and "look on" as 5th degree members. In the National Grange, ditto, as 6th degree members. If their past experience and training are of any value, it goes for naught. That is all.

In other words, the National and State Granges are now more exclusive in their privileges than formerly.

The changes in the new Constitution were in force at the late session of the National Grange, and will be in force at all sessions of State Granges for the ensuing year.

Of the amendments proposed at St. Louis all were ratified and became laws, except four, namely those relating to

1. The seven founders becoming life members.
2. Past Masters of National Granges, and their wives.
3. Increase of representation.
4. Increase of membership fees.

These four were lost. It is important for our members, everywhere, to observe that as the Constitution now stands (Art. viii., Sec. 7), different degrees can be conferred on different persons at the same meeting, but not on the same person. It is equally important to observe that according to Art. v. to be eligible to become a member in future, they must be engaged in agriculture as a pursuit, and must have no interest conflicting with the purposes of our Order.

Preamble.

Human happiness is the acme of earthly ambition. Individual happiness depends upon general prosperity. The prosperity of a nation is in proportion to the value of its productions.

The soil is the source from whence we derive all that constitutes wealth; without it we would have no agriculture, no manufactures, no commerce. Of all the material gifts of the Creator, the various productions of the vegetable world are of the first importance. The art of agriculture is the parent and precursor of all arts, and its products the foundation of all wealth.

The productions of the earth are subject to the influence of natural laws, invariable and indisputable; the amount produced will consequently be in proportion to the intelligence of the producer, and success will depend upon his knowledge of the action of these laws, and the proper application of their principles.

Hence, knowledge is the foundation of happiness. The ultimate object of this organization is for mutual instruction and protection, to lighten labor by diffusing a knowledge of its aims and purposes, expand the mind by tracing the beautiful laws the Great Creator has established in the Universe, and to enlarge our views of Creative wisdom and power.

To those who read aright, history proves that in all ages society is fragmentary, and successful results of general welfare can be secured only by general effort. Unity of action cannot be acquired without discipline, and discipline cannot be enforced without significant organization; hence, we have a ceremony of initiation which binds us in mutual fraternity as with a band of iron; but although its influence is so powerful, its application is as gentle as that of the silken thread that binds a wreath of flowers.

The Patrons of Husbandry consist of the following:

ORGANIZATION.

Subordinate Granges.

- First Degree: Maid, (woman,) Laborer, (man.)
Second Degree: Shepherdess, (woman,) Cultivator, (man.)
Third Degree: Gleaner, (woman,) Harvester, (man.)
Fourth Degree: Matron, (woman,) Husbandman, (man.)

State Grange.

SECTION I. Fifth degree. Pomona—(Faith.) Composed of the Masters of Subordinate Granges and their wives, who are Matrons, provided that when the number of Subordinate Granges in any State becomes so great as to render it necessary, the State Grange may, in such manner as it may determine, reduce its representatives by providing for the election of a certain proportion of those entitled to membership in the State Grange from each county; and the members so chosen shall constitute the State Grange.

SEC. 2. There may be established District or County Granges in the fifth degree, not to exceed one in each county, composed of Masters and Past-Masters of Subordinate Granges, and their wives, who are Matrons, and such fourth degree members (not to exceed three) as may be elected thereto by the Subordinate Granges, under such regulations as may be established by State Granges. Such District or County Granges shall have charge of the educational and business interests of the Order in their respective districts, and shall encourage, strengthen and aid the Subordinate Granges represented therein. Dispensations for such District or County Granges shall issue from the State Grange, and under such regulations as the State Grange may adopt.

National Grange.

Sixth Degree: Flora, (Charity.) Composed of Masters of State Granges and their wives who have taken the degree of Pomona and the officers, and members of the Executive Committee of the National Grange.

Seventh Degree: Ceres, (Faith.)

Members of the National Grange who have served one year therein may become members of this degree upon application and election. It has charge of the

secret work of the Order, and shall be a court of impeachment of all officers of the National Grange.

Members of this degree are honorary members of the National Grange, and are eligible to offices therein, but not entitled to vote.

Constitution.

ARTICLE I.—OFFICERS.—SECTION 1. The officers of a Grange, either National, State, or Subordinate, consist of and rank as follows: Master, Overseer, Lecturer, Steward, Assistant Steward, Chaplain, Treasurer, Secretary, Gate-keeper, Ceres, Pomona, Flora, and Lady Assistant Steward. It is their duty to see that the laws of the Order are carried out.

SEC. 2. How Chosen.—In the Subordinate Granges they shall be chosen annually at the regular meeting in December, and installed at the regular meeting in January, or as soon thereafter as practicable; in the State Granges once in two years, and in the National Grange once in three years. All elections to be by ballot.

Vacancies by death or resignation to be filled at a special election at the next regular meeting thereof—officers so chosen to serve until the annual meeting.

SEC. 3. The Master of the National Grange may appoint members of the Order as deputies to organize Granges where no State Grange exists.

SEC. 4. There shall be an Executive Committee of the National Grange, consisting of five members, whose term of office shall be three years.

SEC. 5. The officers of the respective Granges shall be addressed as "WORTHY."

ARTICLE II.—MEETINGS.—SECTION I. Subordinate Granges shall meet at least once each month, and may hold intermediate meetings.

SEC. 2. State Granges shall meet annually at such time and place as the Grange shall from year to year determine.

SEC. 3. The National Grange shall meet annually on the third Wednesday in November, at such place as the Grange may from year to year determine. Should the National Grange adjourn without selecting the place of meeting, the Executive Committee shall appoint the place and notify the Secretary of the National Grange and the Masters of the State Granges at least thirty days before the day appointed.

ARTICLE III.—LAWS.—The National Grange, at its annual session, may frame, amend, or repeal such laws as the good of the Order may require. All laws of State and Subordinate Granges must conform to this Constitution and the laws adopted by the National Granges.

ARTICLE IV.—RITUAL.—The Ritual adopted by the National Grange shall be used in all Subordinate Granges, and any desired alteration in the same must be submitted to, and receive the sanction of, the National Grange.

ARTICLE V.—MEMBERSHIP.—Any person engaged in agricultural pursuits and having no interest in conflict with our purposes, of the age of sixteen years, only proposed, elected, and complying with the rules and regulations of the Order, is entitled to membership and the benefit of the degrees taken. Every application must be accompanied by the fee of membership. If rejected the money will be refunded. Applications must be certified by members, and balloted for at a subsequent meeting. It shall require three negative votes to reject an applicant.

ARTICLE VI.—FEES FOR MEMBERSHIP.—The minimum fee for membership in a Subordinate Grange shall be, for men, five dollars, and for women, two dollars, for the four degrees, except charter members, who shall pay—men, three dollars, and women, fifty cents.

ARTICLE VII.—DUES.—SECTION I. The minimum of regular monthly dues shall be ten cents from each member, and each Grange may otherwise regulate its own dues.

SEC. 2. The Secretary of each Subordinate Grange shall report quarterly to the Secretary of the State Grange the names of all persons initiated during the quarter, and pay to the Secretary of the State Grange one dollar for each man, and fifty cents for each woman initiated during the quarter. Also a quarterly due of six cents for each member, said report to be approved and forwarded at the first session of the Grange in each quarter.

SEC. 3. The Secretary of the State Grange shall pay to the Treasurer of the State Grange all moneys coming into his hands, at least once every ten days, taking his receipt therefor; and shall report quarterly to the Secretary of the National Grange the membership in the State.

SEC. 4. The Treasurer of each State Grange shall deposit to the credit of the National Grange of Patrons of Husbandry, with some Banking or Trust company, to be selected by the Executive Committee, in quarterly instalments, the annual due of five cents for each member in his State, and forward the receipts of the same to the Treasurer of the National Grange.

SEC. 5. All moneys deposited with said company shall be paid out only upon the drafts of the Treasurer approved by the Master and countersigned by the Secretary.

SEC. 6. No State Grange shall be entitled to representation in the National Grange whose dues are unpaid for more than one quarter.

ARTICLE VIII.—CHARTERS AND DISPENSATIONS.—SECTION I. All charters and dispensations issue directly from the National Grange.

SEC. 2. Nine men and four women having received the four Subordinate degrees, may receive a dispensation to organize a Subordinate Grange.

SEC. 3. Applications for dispensations or charters shall be made to the Secretary of the National Grange, and be signed by the persons applying for the same, and be accompanied by a fee of fifteen dollars.

SEC. 4. Charter members are those persons only whose names are upon the application, and whose fees were paid at the time of organization. Their number shall not be less than nine men and four women, nor more than twenty men and twenty women.

SEC. 5. Fifteen Subordinate Granges working in a State can apply for authority to organize a State Grange.

SEC. 6. Where State Granges are organized, dispensations for the organization of the Subordinate Granges heretofore issued shall be replaced by Charter from the National Grange without further fee; and thereafter all applications for Charters for Subordinate Granges shall pass through the office of the Master of the State Grange, and must be approved by him before they are issued by the National Grange. When so issued, the Charter shall pass through the office of the Secretary of the State Grange and receive the signature and official seal of that office.

SEC. 7. No Grange shall confer more than one degree on the same person at the same meeting.

ARTICLE IX.—DUTIES OF OFFICERS.—The duties of the officers of the National, State and Subordinate Granges shall be prescribed by the laws of the same.

ARTICLE X.—TREASURERS.—SECTION I. The Treasurers of the National, State and Subordinate Granges shall give bonds, to be approved by the officers of their respective Granges.

SEC. 2. In all Granges bills must be approved by the Master, and countersigned by the Secretary, before the Treasurer can pay the same.

ARTICLE XI.—RESTRICTION.—Religious or political questions will not be tolerated as subjects of discussion in the work of the Order, and no political or religious tests for membership shall be applied.

ARTICLE XII.—The Master of the National Grange and the members of the Executive Committee shall be empowered to suspend from office any officer of the National Grange who may prove inefficient or derelict in the discharge of his duty, subject to appeal to the next session thereafter of the National Grange.

ARTICLE XIII.—AMENDMENTS.—This Constitution can be altered or amended by a two-thirds vote of the National Grange at any annual meeting, and when such alteration or amendment shall have been ratified by three-fourths of the State Granges, and the same reported to the Secretary of the National Grange, it shall be of full force.

The National Grange.

We have received a long letter from Brother Wright, furnishing a synopsis of the proceedings of the National Grange; but as much of the contents of his letter had been previously obtained from other sources, we give only the following extracts:

This very important and interesting session did not adjourn until 2 p. m. Feb. 16th; consequently the session continued twelve working days. There was a session every day, and a very large amount of work was done, notwithstanding the unfriendly criticisms about losing time by "junketing down the harbor on a steamship monopoly's steamer," and things of that ilk on the part of certain political papers, which are really hostile to the success of the Grange, though they wear the guise of friendly solicitude.

The records of this session were kept with great care and accuracy, all resolutions being numbered and recorded. In proof of the large amount of work, it may be well to mention that no less than two hundred resolutions were presented and received the proper consideration and action, besides numerous addresses, reports, memorials and other communications. The printed proceedings for the benefit of our members will be quite voluminous.

The invitation from the Patrons of California and Nevada to meet in San Francisco in November next was accepted on the condition that the mileage of members will not be a greater expense to the National Grange than it was for the meeting at St. Louis. Should it be found on investigation by the Executive Committee and Brother Hamilton that such expense will be greater, then the Executive Committee will probably select the new location of headquarters for the next meeting. The wish to meet in San Francisco, if not too expensive, was unanimous.

The remarkable and gratifying fact was made known that the number of subordinate Granges has doubled since last season, the number now exceeding 22,000.

Many fourth and fifth degree members attended this session and were admitted during most of the proceedings.

So much for the general business of the session. But how can one tell in a few words the advance made at this Charleston meeting in the peace-making and harmonizing effects of our Order? Results in this benevolent direction surpassed our expectations. Ponder well the record. In words of sincerity and earnest truthfulness, a cordial welcome was extended by the citizens of South Carolina and as heartily accepted. Yet comparatively little time was consumed in this exchange of fraternizing civilities. In fact, the recreation thus afforded was necessary during such intense and prolonged occupation of body and mind.

A few hours were spent in accepting the welcome of citizens; two hours were consumed by the visit to the Chamber of Commerce; four hours at another time were occupied in sailing around the harbor in the Steamer *South Carolina*; a few hours were spent in a special visit to Fort Sumter. The greatest part of one Saturday was consumed in a trip by steamboat up Ashley river, to examine the noted Superphosphate works, which now turn out annually vast quantities of the best agricultural fertilizers.

It was the general sentiment that no part of our time was more profitably spent than the few hours devoted to these excursions, which were so generously tendered by Ashley Grange and the citizens of Charleston. The best feeling was engendered and fostered by the pleasant intercourse thus secured among representatives from every part of our country. The future will record its good results. The meetings and greetings were full of sincerity and brotherly kindness.

May the fruition of this session equal its promise in every way. Hoping to see you within a month, Yours, Fraternally,

J. W. A. WRIGHT.

Green Springs, Ala., March 10th, 1875.

In Memoriam.

EDITORS PRESS:—At a meeting of San Pedro Grange No. 162, held on the 13th of March, the following biographical sketch was read, and the appended resolutions were unanimously adopted:

Brother John F. Wooley was born in Richland county, Ohio, A. D. 1818. He was a member of the M. E. Church for thirty years, during which time he lived an exemplary Christian life. During his sickness he was patient and reconciled to his fate. Brother Wooley was a charter member of San Pedro Grange, and was always in his place at our meetings. He was elected Lecturer of this Grange at its first annual election, but owing to the loss of his health was never installed.

WHEREAS, It has pleased our Heavenly Father to remove from our midst one of our esteemed members, Bro. John F. Wooley; therefore, be it

Resolved, In this dispensation of His providence we lose an esteemed member of our Order and the community a worthy citizen.

Resolved, That it is the duty of the members of this Grange, not only to sympathize with, but to assist by every means in their power this bereaved family who have thus lost their counsellor and guide.

Resolved, That a copy of these resolutions be handed to the Ventura Signal, Pacific Rural Press and the Christian Advocate for publication.

J. Y. SAVERS, }
JOHN G. HILL, } Com.
D. W. FIERFORD, }

Help for the Kansas and Nebraska Sufferers.

LIOR HOUSE, S. F., March 23d, 1875.
I. G. GARDNER, Agent Cal. State Grange—
Sir: I have the honor to request that you will with as little delay as possible, call upon the Granger's of California, for donations of seed to aid in planting the lands of destitute farmers in Kansas and Nebraska. I think a good many cars could be loaded at different points in the State, and I believe the farmers of California only await an opportunity to help their destitute brethren of the East in this their hour of poverty and trouble. All donations of seed will be carried free to the sufferers. Please make such arrangements as you may deem proper for gathering and forwarding donations from your people, but lose no time in doing so as the season for seeding in Kansas and Nebraska is at hand.

The citizens of San Francisco have contributed over 20,000 bushels of seed barley for these poor people, and I hope the country will not be behind the city in generosity. The need is great, and if seed is not donated the Kansas Nebraska sufferers, they will remain paupers for another year. It is not only policy and sound judgment but our duty to render these people self-sustaining as soon as possible, and relieve them from famine and distress that has had no parallel in the history of the nation.

Very respectfully,
Your obedient servant,
JAS. S. BRISBEN, U. S. A.

Having received the above letter and earnest appeal for aid for our Nebraska and Kansas sufferers we hope that our Granger's will send forward seed of any kind that they can spare. The Government is issuing rations, but seed or money to buy seed must be furnished. The railroad company will carry everything free East. All points in our interior where cars can be loaded, will please confer with me by letter and the necessary directions for loading will be given. San Diego, Los Angeles, San Buena Ventura, Santa Barbara, Monterey, and all points along the coast, your attention is called to the offer of Goodall, Nelson & Perkins, who propose to carry free. As far as possible let your contribution be in barley. Oregon will please notice the communication of the Oregon Steamship Company. Mark everything I. G. Gardner, Grangers' Agent San Francisco, and address a letter at the same time. We give below a communication from W. W. McCracken, Aurora, Kansas, this is but one of many letters that comes to our Grange headquarters. I. S. GARDNER, Agent Cal. State Grange, No. 6, Leidesdorff St., S. F.

OFFICE OF COUNTY CLERK.
Jewell Centre, Kan., Jan. 8, 1875.
The following statistics will exhibit the condition and wants of the people of Jewell county. These statistics were taken by responsible men in each township and reported to the Secretary of the Jewell county Aid Society:
Number of people in the county, 8,265.
Amount of grain on hand, 24,775 bushels, or about three bushels to each person.
Number of cattle, 4,750.
Number of acres in cultivation and for which seed must be furnished, 80,000.

AURORA, Kansas.
JOSIAH EARL, Dear Sir:—Having received from our Board of County Commissioners an appointment to solicit aid for our destitute grasshopper sufferers, and as there has been a great amount of canvassing done East and considerable aid goods received from the States East, I wish to inquire if your people would help us in this matter. The greatest distress prevails here and our Eastern friends are taxed greatly to assist us in saving human life. If we do not receive assistance from other States of a more substantial character we will lose some of the citizens of our newly organized counties. Much stock is dying, and by spring our horses and teams will be unable to perform farm labor, as there is now no grain to feed them. We will need a large amount of seed grain for spring planting, and without which thousands of acres of fine cultivated land will lie idle, and large numbers of our citizens will remain proper subjects for charity. Can the Pacific States help us in this trying hour?
Please write me and if you think it advisable, I will try and visit the States during March, and receive such contributions as may be offered for the destitute of Jewell county, Kansas.
Very truly,
W. W. McCracken.

OFFICE OF GOODALL, NELSON & PERKINS,
STEAMSHIP LINE.
San Francisco, Feb. 13th, 1875.

I. G. GARDNER, General Agent Cal. State Grange—Dear Sir: In answer to yours of this date we beg to state that we shall be pleased to convey over our steamship routes anything contributed for the benefit of the sufferers of Kansas and Nebraska, free of charge.
Yours truly,
GOODALL, NELSON & PERKINS.

OFFICE OF THE OREGON STEAMSHIP CO.,
San Francisco, Feb. 13, 1875.
I. G. GARDNER, General Agent Cal. Grangers—Dear Sir: Your letter of this date received. In reply I will state that this company will transport, free of charge on their steamers, such articles as may be especially shipped for the benefit of the Kansas and Nebraska sufferers.

Respectfully yours,
WM. NORRIS, Agent.

Walnut Creek Grange.

EDITORS PRESS:—Yesterday was the day appointed by Bro. Cressey, to be with the members of this grange for the purpose of having a little talk in regard to the Grangers' Business Association, and as he is strictly a man of his word, he and his Granger colt arrived in our village in good season. After conferring the fourth degree upon two brothers and one sister, and indulging in a harvest feast prepared by the worthy sisters, Bro. Cressey's speech, the event of the day, was next in order. A large space was cleared at one end of the hall for the "noblest Patron of them all," and for an hour or two he had the undivided attention of every brother and sister in the hall. Sometimes they laughed at his anecdotes; sometimes smiled at his wit; sometimes their faces grew very solemn and stern when he portrayed their present condition of abject dependence upon the men who control the produce market of our State; and sometimes their hearts were stirred to their depths by his words of deep feeling. Bro. Cressey is one of nature's own orators, and when he is talking of things that he believes in, he appeals to the minds and hearts of his hearers in a manner that is sure to win. After his talk the subscription papers were opened and 83 shares taken in a short time.

Walnut Creek Grange is in good working condition. It has a membership of sixty or more and five candidates to be initiated at our next meeting.

Crops are looking very well in this section, and with average spring rains I think the yield of grain will exceed that of any previous year.

The weekly visits of the RURAL PRESS are anticipated by a number of members of this Grange who receive their papers at three or four different offices. Its influence is growing stronger and stronger every day, and no family can afford to be without it.

Very truly yours,
OCCASIONAL.

March 15th, 1875.
[We have received another account of the above mentioned occasion. The brother sending it will please accept our thanks. He will, of course, see the propriety of publishing but one account of the same meeting.—EDS. PRESS.]

In Memoriam.

WHEREAS, It having pleased our Heavenly Father to remove by death the wife of Brother George Andrews, who departed this life February the 20th, 1875, therefore be it

Resolved, That while we mourn our loss we are reminded that we too must soon be called away by the same powerful hand of death, and that this loss is our admonition to be ready and prepared when called upon to go, by Him who holds our lives in His hand.

Resolved, That we tender our heartfelt sympathies to Brother Andrews, and that a copy of these resolutions under the seal of the Grange be sent to the family of the bereaved Brother, also a copy be placed on the spread on the records of this Grange, and one be forwarded to the PACIFIC RURAL PRESS for publication.

WM. C. GREENFIELD, Secretary.
Guenoc Grange, P. of H. Lake Co. Cal.

AGRICULTURAL NOTES.

BUTTE.

ENCOURAGING.—The Record gives this encouraging report of the prospects in Butte county: There never was, probably, a better prospect for a good crop of wheat in Butte than exists at the present time. Extensive grain fields cover the valley everywhere, and it all looks vigorous and well. That on the black land a few miles south of Chico looks very promising, especially that portion which was summer fallowed. We have been shown by Mr. Rock a bunch of wheat, taken from the 1,100-acre field of J. M. Decker, that is almost three feet in height. This is said to be a fair specimen of the field. The only danger to apprehend is that it may grow so rank as to fall before it ripens sufficiently to harvest.

CONTRA COSTA.

AN AVERAGE YIELD.—The Contra Costa Gazette of March 20th says: In our immediate section, west of the Diablo meridian in this county, the growing grain, while somewhat checked by the moisture-absorbing and desiccating winds, has not seriously suffered as yet, and, with ordinary chances from now onward, will turn out an average yield, but we cannot reasonably look for an extraordinary one.

KERN.

IRRIGATION.—The Courier has this to say on a new plan being developed for irrigation in that section: Several of our large real estate owners are carrying into execution an excellent plan in regard to preparing their lands for market. They are supplying them with large and well-constructed irrigating canals, putting extensive tracts under cultivation and making other improvements, suitable to the circumstances, with the view of showing by ocular demonstration what may be done. It is well known that but few persons are capable of judging the capacity for improvement in any tract of land as it exists in a state of nature. They must see an example before they can approximate to an idea. It can no longer be alleged that the progress of the county is retarded by the inaction and indifference of our large land-owners. At this time they are taking the lead in improvement of every kind. It is clear, too, from their antecedents, that they would not do so did they not see their way

clear to make at least two hundred per cent. on their investments, and this fact speaks volumes in favor of the resources of the county.

THAT STEAM WAGON.—We made a brief reference to the Hyde steam wagon several weeks since. The Bakerfield Courier of the 20th inst. has this to say of its operation: Hyde's steam wagon, that still continues quietly at work at Carr's, is attracting attention. Everybody that comes to see the country goes to see it work. That it may be successfully used for most purposes of the farm wherever attractive force is required, is sufficiently demonstrated. The work it has thus far been engaged in, is ditching, clearing and plowing. The soil is covered with a growth of tall weeds that must be removed before it can be plowed. A bar of railroad iron is attached transversely to the machine. This breaks down the weeds and they are afterward raked into piles, ready for burning, by an immense rake that takes its place. The ground being made ready in this manner, a gang of plows is hitched on, and, under control of an engineer and fireman, it proceeds to plow, turning eight or ten furrows at once, according to the nature of the soil. Its usual day's work (10 hours) is about thirty acres, done without any of the turmoil or trouble, and with a third of the expense that would have attended the same operation if performed by fifteen pairs of horses and the number of men necessary to manage them. With two sets of hands it could be run with greater economy than now, from early morn till dark, and would plow about forty-five acres per day.

LOS ANGELES.

A NEW DITCH.—The Anaheim Gazette of the 13th inst. says: "The Board of Commissioners of water district No. 1, at a meeting held on last Friday evening, received but one bid for the construction of the ditch. The terms not being satisfactory, they decided to take the work of construction into their own hands. An agreement has been entered into with the Grange Labor Association, of San Francisco, for one hundred Chinese laborers, and it is expected they will arrive about the 22d of the present month. The necessary tools, including a railroad plough of the largest size, have been ordered, and in two weeks the work of constructing the ditch will have fairly been inaugurated. The water will be taken from the Santa Ana river about three miles above the Chapman ditch. It will be run a distance of twelve miles, eight miles of which are through hard sandstone rock and on side-hill, and four over mesa land. The estimated cost is about \$25,000.

MARIN.

CHEESE.—The San Rafael Journal says: "The Jewell Brothers, on the Omar Jewell ranch, are making cheese instead of butter, finding it more profitable. They make 100 pounds of cheese a day from forty cows. Two and a half pounds of cheese are made from the milk that would be required for one of butter, while the former is worth 15 cents and the latter 27½ cents per pound. The milk is warmed by the same apparatus required for washing pans, so the only additional expense is a vat.

MENDOCINO.

FROST.—The Ukiah Dispatch of March 20th says: Two or three mornings the past week, we have had heavy frosts. As the peach trees are now in full bloom, it is feared that much damage has been done; but we have hopes that these fears are premature. The dry weather and north winds, which are so much deprecated, may save them. "It is an ill wind that blows good to nobody."

MONTEREY.

LATE.—The Democrat of March 20th says: The farmers on the Cooper ranch, and on lands adjoining it on the east, have just about finished seeding. They are always late, because of the mustard, but being close to the sea, very slight spring rains secure their crops.

NAPA.

CROPS IN BERRYESA VALLEY.—A correspondent of the Record Union writes in regard to the Berryesa valley: The crops of wheat and barley are not so forward as those on the plains, but the setting is very strong and the growth of an exceeding rich, green color. The acreage will be greater this year than last, and with the usual spring rains the yield per acre will be heavier. At the present time the farmers are anxiously looking for rain, as here as well as on the plains, the north wind has been making sad havoc with the young crops. Heavy frosts fell here on Saturday and Sunday nights last, which, it is feared, have injured the early fruit, which is in full bloom.

NEVADA.

RYE VS. ALFALFA.—An informant of the Nevada city Transcript is of opinion that the production of rye is preferable to alfalfa in that locality. The Transcript says: We are informed by Josiah Dodge, who is one of the most thorough farmers in the foothills, that after a thorough trial and careful observation, he considers rye a much better thing to raise than alfalfa, for grazing purposes. It grows two or more months earlier, and will therefore afford feed for stock in winter. It will seed itself from year to year, and cattle and hogs thrive as well or better on it when growing, than alfalfa; besides, it will grow on land without irrigation, that would not produce alfalfa at all. His plan is to allow it to grow for two or three years, and then plow a crop under, which enriches the land, and the following year the ground will be well seeded as before. Mr. Dodge is firm in his belief, and he never possesses an opinion without a reason for it. What do other farmers think?

SAN JOAQUIN.

HEAVY YIELD ANTICIPATED.—The Merced Express of the 20th inst., says: Never have the people of this section of the great San Joaquin valley had better cause for rejoicing than at the present time over the prospect for an abundant yield of grain. From every part of our county come to us cheering intelligence concerning the fine appearance of the grain fields. A gentleman who lives nine miles west of this town informs us that he has 600 acres of barley which is at the present time on an average two and a half feet high. With such an encouraging prospect he can reasonably expect a yield per acre of forty to fifty bushels. The above is by no means an isolated case, and is only given to illustrate the general appearance of our entire county as well as to demonstrate the productiveness of our soil. Accepting present indications as a guarantee for an abundant harvest, we need have no fears regarding our future financial status.

BEWARE.—The San Joaquin Valley Argus says: A gentleman who arrived yesterday evening from Stockton informs us that the crops along the route far surpass, at this season of the year, that of any season since the "dry year." The crops in San Joaquin county, especially, are far advanced; so far, indeed, that in a great many localities the farmers are seriously thinking of cutting it down. This idea, to us, seems rather foolhardy, when, as our informant states, in some localities wheat is already in the blossom. In our opinion, if we should not have any more rain, this will entirely destroy that portion of the crops which are at present so far advanced. Farmers, beware!

AN EXTENDED VIEW.—The Stockton Independent of the 22d inst. has this to say, editorially, of the crop prospects in the San Joaquin valley: A late trip through portions of San Joaquin and Stanislaus counties convinces us that the crop prospect has never been better at this season of the year than at present. It is true that rain would do much good, but those who are reporting that the crops in this portion of the State are now seriously suffering from drouth are certainly mistaken. There are many fields of early sown grain that would probably produce a fair crop should we have but little more rain, while even the late sown, where the land has been well tilled and thoroughly cultivated, is looking green and promising. Of course a good, soaking rain at the present time would improve the chances for a large crop, but we are satisfied that the yield of grain in the eastern portion of the San Joaquin valley will be a full average should we only have the showers that may generally be confidently expected at this season of the year.

SANTA CRUZ.

VOLUNTEER BARLEY.—The Watsonville Pajonian tells of some big barley, the product of that locality: Mr. B. Dehart, a few days ago, brought into our office a handful of volunteer barley, raised in this valley, which measured four feet in length. We have seen several accounts of tall grain, but for this time of year the above should receive the prize.

SONOMA.

LARGE GRAIN.—The last issue of the Flag says: In Russian River valley, and generally in Sonoma county nearly every acre has been seeded and the prospects for abundant crops were never more flattering. In one field we lately noticed grain standing over two feet high. This field is beyond the average, but still the report from all sections of the county show that it is not much beyond.

TULARE.

BIG WHEAT.—The Tulare Times says that last week they measured a bunch of wheat that was forty inches in height. It grew without irrigation upon the ranch of Mr. Murphy near Tulare. This is a fair specimen of what might be done by proper cultivation.

TUOLUMNE.

GRAIN AND RAIN.—The Grange Committee reported at their meeting on the 13th inst., that from the limited time and means at their disposal they found in Tuolumne county about ten thousand acres in grain, the appearance of which was good, and the rainfall had been 22 10-100 inches.

YOLO.

THE OUTLOOK.—Says the Woodland Mail: From all parts we hear of glorious prospects for crops of all kinds. There are some fields of late sown wheat which present a spotted appearance, the grain never having sprouted; but the summer-fallow is all in a splendid condition. The continued dry weather is a benefit to it, if only the late rains come in good time.

We have good news from the sheep ranges of the foothills and mountains. Shearing will soon begin and a large harvest of wool is anticipated. It has been estimated by those interested that the clip of wool in Yolo county this year will amount to 40,000 pounds. The increase in the herds by lambs is very large.

There is a pretty good prospect for fruit. The orchards are now in bloom and present rather a beautiful appearance.

Vineyards are not so much of a rage as they were three years ago. We find many of the fields, which at that time were set with flourishing vines, now in clover for pasture for stock, or put to some other use. A few who understand how to take care of, and make grapes profitable, have continued to improve their vineyards, adding to them the best foreign varieties, from which they manufacture the finest raisins. These raisins find a ready market in the East at a fair price.



Remembrance.

(Written for the Press.)

Say, shall we meet? Long years have flown
Since we two wandered side by side,
And we have drifted with the waves
That floated down Time's restless tide;
And still, there is a glamour cast
About those peerless early years
Which fades in sadder shades, as I
Review them through the mist of tears.

The stern, dark years that hore me on,
They have not turned my heart to stone,
But rather with a tender love,
I muse upon the times long flown.
If there was naught that brought me pain,
Or misery, or deep regret,
I will not brood on them to-night,—
My heart on pleasant things is set.

With thee, I can remember still
The mountains in their grandeur dress,
The fragrance of the whispering pines,
That filled my soul with sweet unrest.
And rare wild flowers with regal dyes,
Mid deep, dark shadows on the hills—
All these, with many other things,
My soul with fond remembrance fills.

And thou art bound, as some bright link,
Amidst the chain of those young dreams;
Thy voice was mingled with the pines,
And with the murmuring of the streams.
Old friends! the years have brought to us
The common lot of human life;
For toil, and change and time have wrought
The scars we gathered in the strife.

And it might be, if we should meet,
In some unlooked for, crowded place,
I might brush by thee with a glance,
And never know thy face;
And you might stare a stranger's stare
Into my unfamiliar eyes,
And never dream the heart still beats
True to old friendship's ties.

Unanswered yet into my soul
Is that fond wish of mine,
To stray once more, as years before,
Among the murmuring pines.
For since my feet have pressed the shore,
A second time, on this fair land;
I have been severed from those haunts,
As from that olden band.

And still unanswered is the wish,
That I should greet once more,
Those treasured friends whose early lives,
Were cast with mine of yore.
And so, I can but now repeat,
A welcome, ringing in the strain—
And hands stretched o'er the gap of years.
Say—Shall we ever meet again?

MOLLIE.

Answer to "Flora."

(Written for the RURAL PRESS by ELIZA E. ANTHONY.)

An unknown correspondent writes to me as follows: "Please tell me through the Press how to manage about my work—the easiest and quickest way of doing it—I am very slow and it is sometimes as late as three or four o'clock in the afternoon before I can sit down—not then to rest and read, but to darn stockings innumerable and patch, patch, patch—until I am heartily tired of sewing and everything else."

My husband is almost double my age, quiet and undemonstrative—too much so, entirely—works hard, has no bad habits, is kind and good, but does not care about reading and music, of which I am very fond; and regards the little time I spend in caring for my half-a-dozen flowers as time wasted. I would like to have a canary bird, hanging baskets, pictures, etc., but he will not buy them for me and I get angry, speak hastily and passionately, he does the same, and there is a 'domestic breeze.' Please give me a little encouragement, tell me how to change his dislike of those pretty trifles, into a liking for the same, and also write something that will teach him how to keep his temper more than he does, and if not asking too much, give me a few hints on the management of children. I have four, the eldest not yet ten years of age.

By answering the above you will confer a great favor on your friend FLORA."

Well dear friend, you ask—let me see—eight or ten questions in one breath; and it would take up too much valuable space in the Press to answer them all at once; so I will answer your first question this time, and the others at some future period, if our worthy editor will kindly grant me space.

You mention that you are very slow. That accounts in part for your work being behind-hand. Right here let me tell you about an acquaintance of mine, with whom I once spent a few days. After breakfast she would let the dishes remain on the table, while she would read just one article in the paper; but she read on and on, until the fire went out, the water got cold, and on preparing to wash the dishes, there was extra work to be done. The fire to light, water to heat, and the dishes were so cold and greasy that it was double the work to wash them that it would have been at first. Not once did she do this, but day after day.

When she came home from visiting, shopping, etc., her hat was thrown on the bed, her shawl on one chair, her gloves on another and her parasol wherever it was convenient; and if a visitor came, it was a scramble and rush to

get those articles out of sight. Her bed was a perfect catch-all—always full of newspapers, wearing apparel in different stages of development—from the fabric, as it was brought from the store to the finished garment.

She had numerous clothes closets in the house, but preferred leaving her garments here, there and everywhere; and when she wished to go out, it took nearly an hour to find the needed articles. One shoe would be under the bed, the other up-stairs; her cuffs would be found in the China closet, her veil in a bureau drawer, so wrinkled and crumpled up that it was not fit to wear. She was an excellent cook, but used twice as many dishes as was necessary, and then spent ten or fifteen minutes in hunting up the necessary ingredients; for instead of having everything in its proper place, she would drop them wherever she happened to be.

She was a splendid reader, and one day leaving the jelly on the stove to cook, despite my remonstrances, picked up a volume of poems and read aloud, "Dickens in Camp."

We were both deeply interested, when she happened to think of her jelly, and rushing into the kitchen, found it was burnt—not fit to eat—and after a scene of the "Dickens in Camp," she threw it away. She would cut out several garments the same day, sew a little on each one and then forget it for the next month; she never mended the week's garments until they were needed; and it was no wonder her beloved would storm around the room, holding a buttonless garment at arm's length. I have written about my friend more perhaps than I should, but I thought that by showing you her way of keeping house you would see in what manner or way you have been delinquent.

Never think of sitting down to read until your morning's work is done, your hair arranged for the day, and a collar with a neat little bow of ribbon at your throat. You have no idea how these trifles freshen up a dress.

While working your dress can be protected with a large apron, made of gingham—or calico, if you prefer it—large and long enough to cover your skirts, and some add a "bib," to keep the waist of the dress clean.

The aprons are not as hideous as you might suppose, but one does not need frilled and trimmed aprons when cooking.

Never take two steps when one is sufficient, and do not loiter on the way. At night you can nearly, if not quite, prepare breakfast for the following morning, and before retiring tidy up the room a little—put the chairs in their places, fold up the newspapers and put them away—adjust this and that and so much time will be saved the next morning.

Eudeavor to finish your work by dinner time, of course I mean after the dishes are washed and put away, and the house tidied up—and never commence washing, ironing or haking in the afternoon—far better to rise early the next morning and do it. Then you have the afternoon to yourself. A good plan is to read—say an hour—and while sewing think over what you have read. That will help your memory wonderfully. Alternately read and sew, and you will be surprised to see how much you can accomplish in that way. Always have a place for everything and everything in its place. That proverb is old but will hear repeating.

It is just as easy to put your garments in their proper places as it is to toss them around the room, and they will not soil as quickly. The night before you iron your clothes, fold them neatly and evenly, dampen and lay carefully in your clothes-basket, with a large towel on top of all, and you will be delighted to see how easily they will iron.

Have separate places for your sheets, towels, stockings, collars, etc., instead of jumbling them all in together.

Now for some hints: A good dish cloth can be made of an old stocking—cut the foot off and use the other part. Some prefer to crochet them loosely of cord, but we are not partial to them.

Empty your flour into a large barrel, which will hold three or more sacksful, which is far preferable to having the flour in the sacks to be spilled and wasted as it generally is.

To prevent a teakettle from rusting, boil a double handful of hay in it, then fill the kettle with cold water and boil again.

If you will sprinkle flour on your pie plates before using, you will never use lard again, as it answers the purpose so much better.

I have not half exhausted my subject, but fear I have used more than my share of space, so will answer your other questions some other time, and if there is anything that I have omitted, or that you wish to know, call on me again.

San Jose, March 17th, 1875.

MANKIND NOT SO BAD, AFTER ALL.—It is a curious fact, which ought to have its proper weight, that the man whose duty it is to know most about crime, (the head of the police of London,) has been heard to say, that he finds more and more to excuse in men, and thinks better of human nature, even after tracking it through its most perverse and intolerable courses. It is the man who has seen nothing of life who is intolerant of his fellow men. Misanthropical people have, in most cases, been made misanthropes by hoping too much. But go on, thinking the best you can of mankind, working the most you can for them, never scolding them because they will not be wise your way; and even then, being sure that, think as gently and as lovingly as you can, you have dealt but a scant measure of tolerance to your fellow-man—Arthur Helps.

Jerking the Reins.

Referring to a recent work, entitled, "The Perfect Horse: How to Know Him, etc.," Rev. E. N. Pomeroy, in *The Independent*, considers that it is quite as important to find a "perfect driver," and says:

A horse of average intelligence may be controlled in good part—at least on ordinary occasions—by the voice; in this way, without the use of the whip or reins, he may be made to go faster or slower, or to stop at once.

The horse also knows whether he is going away from the stable or toward it; he knows also the places where he has been accustomed to stop; and, although he wears blinders, he sees everything before him and on each side, and much that is behind him. He is the most sagacious of animals. The reins and whip might, I believe, be dispensed with altogether; and that they are used is owing rather to timidity and stupidity on the part of the man than to lack of docility or tractability on the part of the beast. Much has been said and something has been done of late to prevent the too free use of the whip, both as a persuader to more rapid motion and as a gratification of an evil temper by those having charge of these noble creatures; but, for my part, I have always had as great sympathy as well for those unfortunate, unoffending horses whose drivers—too kind-hearted, too absent-minded, or too indolent to use the whip—are continuously jerking the reins. If the end in view were to destroy the temper or break the spirit of the animal, to make of a good racer, roadster, carriage or saddle-horse a poor, dispirited, ambitionless hack, this would be just the means used for its accomplishment.

Horses, however, are not the only creatures that are afflicted in this way, and horse-drivers are not the only persons who so afflict.

Among employers there is often a tendency to jerk the reins. Many a man who would scorn to be unjust in payment of services rendered, even to the amount of a mill, or who would not use violence if he had the opportunity and provocation of a plantation overseer, does great injustice to the conscientiousness and general faithfulness of those whom he employs, and injures their feelings perhaps twenty times a day, by his quickness of manner or bluntness of speech.

Teachers are too much inclined to jerk the reins. They have smiles and smooth words for the scholars who learn easily, who have few difficulties to overcome, and need little sympathy or encouragement; and reserve their frowns and maledictions for those luckless weights to whom a ladder is like an oak plank, who are always striving and never achieving, and who are poorly enough off with all the advice and good-natured incitement that a teacher can command.

Ministers, like the rest of mankind, occasionally jerk the reins. They sometimes show an inclination to lord it over God's heritage. They say and even do sharp things now and then; not for the good that may be accomplished thereby, but for the sake of saying and doing them. They seem to be fearful that some may not be aware or may forget that they have the "oversight of the flock of God." Now this jerking the reins by those in authority is not a determined and deliberate sin. There is no "malice prepense" in it. It is rather a habit that grows little by little, until at length it may become intolerable.

I have an idea that if a horse, habitually tormented in the manner we have been considering, were like Balaam's ass, for a few moments, endowed with the gift of human speech, he would discourse somewhat on this wise: "Good sir, [or madame], I am not a stone nor a post to be jerked in this way, nor am I a wild animal. I am a horse, the most faithful, intelligent, affectionate servant, man has in all the brute creation. I am ready to do your bidding at any hour of the day or night, to eat what you give me, and to live where you may please to stable me. You sometimes leave me without a blanket, exposed to the cold or wet; you sometimes forget to feed and water me at the proper time; you often give me musty hay, or sour meal, and sometimes only post-meal. I have even known you, when I was very hungry, to hitch me to a post with an iron top. You sometimes whip me when I am going fast enough. All these afflictions and indignities I have borne and can bear again; but do not, I beg you, do not keep jerking the reins, for the iron bit to which they are attached passes through my mouth, and when you jerk it does you no good, for I go no faster than if you were to speak to me never so gently, for my bearing is good, and it does me harm; it hurts and irritates me, and makes me an ambitionless spiritless creature."

The human expostulation, if utterance were given it, would be essentially the same.

COSTLY CHARITY.—Some idea of the preparations for a recent Charity Ball may be gained from the following little paragraph from the New York correspondence of the *Chicago Tribune*, viz: It is said that the aggregate cost—exclusive of jewels—of the dresses to be worn by the ladies of a certain household (four in number) to the Charity Ball is \$12,500 while their tickets cost \$20. Oh, Charity! What extravagance is committed in thy name!

Your word should be as good as your bond.

Why Men Will Not Marry Now-a-Days.

Says a New York paper: New York is crowded with rich, unmarried men, afraid of the expense of supporting these gilded butterflies. There is a bachelor at the Sixth Avenue Hotel, whose income is \$20,000 a year, and still he says he can't afford to get married. He is a proud fellow, and says as a single man he can have the best horses, best rooms and best box at the opera.

"If I should get married," he said, "I would have to stint myself or overdraw my income."

"How is that?" asked a friend.

"Well, now, come into the parlor and I'll show you. You see ladies are extravagant now-a-days. They dress so much more in Europe. I mean they don't wear rich diamonds like the women of Florence and Milan, but they wear such rich dresses, lace, shawls and furs. Now, I'm proud, and I would not want my wife to be outdressed, so I have to keep out of the marriage business."

"Do you see that lady there?" he asked, pointing to a fashionable caller.

"Yes."

"Well, she has on a \$400 panned, water-tanned, polonaised, brown, gros-grain dress, and I wear a \$60 coat. She wears a \$1,200 camel's hair shawl, and a \$500 set of sable, while I wear a \$70 overcoat. She wears a \$70 bonnet, while I wear an \$3 hat. She wears \$200 worth of point applique and point aguille, while I wear a \$6 shirt. Her shoes cost \$15 and mine cost \$12. Her ordinary morning jewelry, which is changed every year, not counting diamonds, cost \$400, mine cost \$50.

"Well, how does it foot up?"

"Why, the clothes she has on cost \$2,225, and mine cost \$206, and that is only one of her dozen outfits, while I only have—say three. The fact is," said he, growing earnest, "I couldn't begin to live in a brown-stone front with that woman and keep up appearances to match—carriages, church, dinners, opera and seaside for \$20,000. I'd have to become a second-rate man, and live in an eighteen-foot house, or withdraw over to Second Avenue, and that I'll be hanged if I do!" and he slung his fists down into a nice silk hat in the excess of his earnestness.

OUR FACES—OPEN BOOKS.—The mysteries of the schools, or the learning of the ancients cannot be studied by all, but pages from the great book of human nature are scattered all around us in ever-changing diversity. There is no repetition, no sameness there; but all are original copies, for the author is Omnipotence. Enter the schools where the "coming man" is being prepared for his high destiny, and we note the open eye, the unruined brow, and the undeveloped features, all denoting innocent childhood and immaturity. Into another, of a different class of children, and oh, how forcibly does the care-worn brow, the sharpened and pinched features speak of poverty and suffering, oftentimes of crime!

Loiter in places where business men congregate, and there may be seen character displayed in its most selfish aspect, all eager for gain, many plotting how to emulate certain Tammany leaders, and yet elude the penitentiary. Has it any influence on features, do you ask? Let lynx eyes, corrugated brow, hooked nose, and compressed lips answer.

Visit the library of the scholar, or the sanctum of the poet, and strikingly do the spacious head, lofty brow, and thoughtful face of the one, as the dreamy, absorbed, spiritual face of the other, reveal their inner life and their profession also. Walk along Broadway, and mark the expression and look of the elegant, refined lady, and then visit the dingiest tenement-house that New York contains, and note the difference in the look of its inmates.—*Annual of Phenology.*

A DEER KILLED BY A YOUNG GIRL.—The annexed incident illustrating the courage, skill and coolness of a Santa Rosa girl is strictly true and well worth public notice. Miss Georgie Anser, a young girl about eighteen years of age, was visiting her sister, Mrs. Perry Hudson, at the old Hudson place. A German was in pursuit of a deer in the hills back of the house; he got one shot but missed the game. The deer a noble buck, came dashing down the hill. Miss Anser saw it coming, got a Henry rifle from the house, took a favorable position, and, as the deer, at full speed, came in range, with unerring aim she put a ball just back of its fore shoulder, and then and there terminated the hunt. The huntsman came up soon after and proposed to divide the game. Miss Anser, who is as generous as she is brave and handsome, acceded to his proposition and the sportsman went off with half the spoils, but all the honors of the hunt were with Miss Anser, who so cleverly doubled up, and so generously divided the prize.—*Sonoma Democrat, Feb. 13th.*

MRS. ABRAHAM LINCOLN is spending the winter in Florida. A Chicago correspondent of a Louisiana journal says the lady has refused numerous eligible offers of marriage since her husband's death.

ALL bachelors are not entirely lost to the refinement of sentiment, for the following toast was lately given by one of them at a public dinner: "The ladies—Sweetbriars in the garden of life."

THERE is everything in the man, nothing in the chance, for the right kind of a man makes his own chance.

AN ENGAGING MANNER.—Politeness is to man what beauty is to a woman. It creates an instantaneous impression in his behalf; while the opposite quality exercises as quick a prejudice against him. The politician who has this advantage, easily distances all the rival candidates, for every voter he speaks with instantly becomes his friend, the very tones in which he asks for a pinch of snuff, are often more potent than the logic of a Clay. Polished manners have often made scoundrels successful, while the best of men, by their hardness and coldness, have done themselves incalculable injury—their ill being so rough that the world could not believe there was a precious kernel within it. Had Raleigh never flung down his cloak in the mud for the proud Elizabeth to walk on, his career in life would scarcely have been worth recording. Scores of men have been successful in life by pleasing manners alone. A trait of character is well worth cultivating, lads. Never forget the value of true civility.

WHAT AM I GOOD FOR?—Remember the parable of the talents—one had ten, another five, another two and another one. So it is among men to-day. Our "talents" may be compared with money, with education, acquired art, natural gifts, or with an opportunity to do good. If we use our one, two, or five talents to do the best of our ability, we shall be accepted, and earn the approval of Him who judges righteously. Are we living so to-day that we can ask or hope that God's blessing on the course we are pursuing? This is our right, our privilege and our duty, we may count our passing moments as unimportant, as they appear to be uneventful. But "time flies," and we must fly to keep up, or be left behind; each second, like the tick of a clock, makes its record. We do not realize this until we come into middle life or old age, when if our time has been frittered away, we are punished in a "hell" of regrets, for "lost time and lost opportunity."—*Annual of Phrenology.*

In a late letter from London Joaquin Miller writes very feelingly concerning the death of Tom Hood the younger, and is led to speak of his first meeting with that genial and accomplished gentleman. The first evening he passed with Hood he brought out a scrap basket containing the relics of his father's manuscript. They looked for some time, hoping to find a copy of the "Bridge of Sighs," but their search proved unavailing, except that it brought to light the following lines which, written on a small scrap of paper, were evidently intended for a portion of that most sadly beautiful of all the authors efforts:

Cover her, cover her
Throw the sad over her,
Hide her from God.

As a literary curiosity, let alone their pathetic lines are worthy of preservation.

BETTER THAN GOLD.—We often hear little boys telling of the wonders they will do when they grow to be men. They are looking and longing for the time when they will be large enough to carry a cane and wear a tall hat; and not one of them will say he expects to be a poor man; but every one expects to be rich. Now, money is very good in its place; but let me tell you little boys what is a great deal better than money, and what you may be earning all the time you are waiting to grow large enough to earn a fortune. The Bible says "a good name is rather to be chosen than great riches, and loving favor rather than silver or gold." A good name does not mean a name for being the richest man in town, or for owning the largest house. A good name is a name for doing good deeds; a name for wearing a pleasant face and carrying a cheerful heart; for always doing right, no matter where we may be.

A GOOD CUSTOM.—Mechanical employments of various kinds are gradually coming more and more into fashion as a source of amusement amongst the young of both sexes. Small printing-presses, tool chests, turning lathes, scroll saws, etc., are now manufactured in large quantities; and are eagerly purchased by those who desire pleasure and instructive employment for their leisure hours. The introduction of these mechanical occupations, serves a more important end than the mere production of a few pretty toys and ornaments, and the keeping of young people out of mischief. They educate the eye, and the hand, and impart a general dexterity, which is of the utmost value in every department of life. Moreover, they give a self confidence in regard to mechanical matters which will often prove of great service.

EARLY MORNING.—The brightest and most beautiful part of the day is the early morning. There seems to be a moral influence, and sweet, healthy power at this time. The air is fresh the feelings are renewed, the spirit is calm, and we enter upon the day rested and restored. If we had day without night, and our hours of repose were amidst the hot rush of constant activities, we should lie down and be unrefreshed. It is a blessed provision that nature gives us, in the curtains of the night, and we must sleep with the glare of the day shut out, and arise in the morning, as the day begins to see all nature starts afresh. There is both stimulus and encouragement in the air we breathe at his time.

EARN MORE THAN YOU SPEND, is a rule short and simple. It is hard for a young man to follow it, but it leads to independence. Good judgment, industry and perseverance, are sure to lead to wealth.

YOUNG FOLKS' COLUMN.

'Cos He Sang So.

Leaning idly over the fence a few days since we noticed a little four-year old "lord of creation" amusing himself in the grass watching the frolicsome flight of birds which were playing around him. At length a bobolink perched himself upon a drooping bough of an apple tree which extended to within a few yards of where the urchin sat, and maintained his position apparently unconscious of the close proximity of one whom the birds usually consider a dangerous neighbor. The boy seemed astonished at his imprudence, and, after regarding him steadily for a minute or two, obeying the instinct of his baser nature, he picked up a stone lying at his feet, and was preparing to throw it, steadily himself carefully for good aim. The little arm was reached backward without alarming the bird, and Bob was within an inch of damage, when lo! his throat swelled, and forth came nature's plea: A-link-a-liuk, bob-o-liuk, bob-o-link! a-no-weet, a-no-weet! I know it, I know it! a-link—a-liuk! don't throw it! throw it, etc., and he didn't. Slowly the little arm subsided to its natural position, and the despised stone dropped. The minstrel charmed the murderer. We heard the songster through, and watched his unharmed flight, as did the boy, with a sorrowful countenance. Anxious to hear an expression of the little fellow's feelings, we approached him and inquired:

"Why didn't you stone him, my boy? You might have killed him and carried him home."

The poor little fellow looked up doubtfully, as though he suspected our meaning, and, with an expression of half shame and half sorrow, he replied:

"Couldn't, 'cos he sang so!"
Don't stone the birds.

A HINT FOR BOYS.—Many a little boy has cried bitterly after a half hour's endeavor to push his feet into a pair of boots as hard and inflexible as boards from drying under the kitchen stove, after being soaked in the wet snow on the day previous. But boys cannot forego the pleasure of building snow forts and sliding down hill, notwithstanding all these vexations; and so they finally manage to crowd their tender feet into those same stiff boots, and dash away to their sport again. At night they find their ankles chafed by rubbing against the hard wrinkles, and the next morning they hobble about like cripples, as they are. Now, boys, let me tell you how to save yourself all this pain. When you pull off your boots at night, fill them to the tops with dry oats. Don't take the oats directly from the cold, damp barn, but first dry them in the oven, or hang them behind the stove in a big until they are perfectly dry. Crowd them in moderately well, and when you get up the next morning you will find your boots all dry, and perfectly in shape, instead of being shrunken and hard. Place the oats in a little sack and keep them behind the stove ready for another occasion, and you will be saved much vexation. At least, so says a scientific journal, and all the papers are copying the statement, and so we believe it, although we have not happened to have occasion to try it. We suppose that the plan will work with men's boots as well as with boys. Try it.

THE ROTHSCHILD WOMEN.—The *Jewish Messenger* says: "We take pleasure in referring to the merits of the Rothschild family, not because they are wealthy, but for the simple reason that in spite of their wealth they strive to be useful to their kind. The men are immersed in business; they are charitable, but the people will say that it is easy to be charitable if you are rich. The women are public-spirited, intelligent and warm-hearted, founding hospitals, reformatories, children's homes, endowing scholastic institutions, encouraging struggling professionals, and taking a personal interest in the poor. Baroness Lionel makes weekly visits in the meanest portions of London, brightening the home of the Jewish artisan, giving her good counsel to the earnest teachers of the free schools, the matrons and assistants of the various charities. The daughter of Alphonse, of Paris, teaches a good lesson to her sisters in faith, and to rich young ladies of her class, by receiving a well-deserved diploma as teacher. Auselm's daughter, in Vienna, is prominent in music, not only composing songs that attain popularity, but aiding struggling musicians by pen and purse.

A LITTLE girl had seen her brother playing with his burning-glass, and heard him talk about the word "focus," she referred to the dictionary, and found that the focus was "the place where the rays meet." At dinner, when the family was assembled, she announced, as grand as could be, that she knew the meaning of one hard word. Her father asked her what it was. She replied that it was the word "focus." "Well, Mary," said he, "what does it mean?" "Why," she replied, "it means a place where they raise calves." This, of course, caused a great laugh. But she stuck to her point, and produced her dictionary to prove that she was right. "There," she said, triumphantly. "Focus—a place where the rays meet; and if they raise meat, they raise calves. And so I am right, ain't I, father?"

GOOD HEALTH.

Take Good Care of your Servants.

[Written for the Press.]

The servants of our bodies (our most valuable servants) are the teeth, the stomach, the liver, etc. They are all very easily and very often abused. In fact we abuse them without being aware of it. The stomach is the subject of the most abuse of all the bodily organs. We don't expect the servants of the farm or the kitchen to work any longer than the number of hours they agreed to work; but we abuse the poor stomach by forcing it to work at all hours in the day and even in the night, when all other organs of the body are at rest. One way of abusing the stomach is to not masticate the food thoroughly, and then the stomach has to do the work that the teeth and mouth should have done. When food is thoroughly chewed it is well moistened with saliva. But when it is bolted with little or no ch-chewing, then the stomach has to furnish more than its share of gastric juice to wash up what should have been done in the mouth. The stomach has more muscular exercise to perform in the process of digestion than most people are aware of. It secretes gastric juice from the arterial blood, which is held in a thousand little glands in the mucous membrane, and when food is eaten these glands emit this gastric juice into the chamber of the stomach to moisten the food, and at the same time the muscular coats of the stomach contract and dilate, and take the food through a kneading (or churning as some physiologists call it) process, to mix it thoroughly with the gastric juice.

This secreting gastric juice and working process is kept up until every particle of food is thoroughly digested. The time required for digestion in a healthy person is from one to three hours according to the character of the food eaten. When a person eats three times a day, the stomach has the proper amount of rest. But unfortunately very few people do eat but three times a day. Some eat every time they happen to see food. And the stomach will attend to its business as long as it has the vital power to do so, even if it is imposed upon. Thus, however, after a person eats between meals the stomach will commence to digest and do its work as well as its vital power will admit of.

Some call it second nature when they have acquired an unphysiological habit. A person may live awhile on second nature; but first nature will come at some time and demand settlement, and then second nature will be found bankrupt. Then what happens? Why, if the stomach is burdened with overwork, it is going to fail to do its work well, and then some one of the myriad forms of dyspepsia is sure to follow. Then follows a succession of secondary diseases; and the sufferer will blame the country, the climate, everybody and everything, except his own irregular habits. Sour stomach is one of the most annoying and most disastrous forms of dyspepsia. It is one great cause of so much premature decay of teeth.

Children should be taught regularly in eating from their infancy. It is mistaken kindness to feed children every hour in the day, if they happen to ask for food so often; but most people do it, and the consequence is, that one half the people are dyspeptics before they arrive at man and womanhood.

The other side of the picture—I have had the pleasure of seeing a few families who practice regularity in eating, with other physiological reforms (that only a few are interested in), and the good health they enjoy is worth a hundred times the pains required to take care of the health. Health journals are much cheaper than aches and pains and doctors' bills.

N. A. PICKENS, M. D.

Riverside, Cal.

Sleeplessness.

To take a hearty meal just before retiring is, of course, injurious; because it is very likely to disturb one's rest and produce nightmare. However, a little food at this time if one is hungry, is decidedly beneficial. It prevents the gnawing of an empty stomach, with its attendant restlessness and unpleasant dreams, to say nothing of probable headache, or of nervous and other derangements, the next morning. One should no more lie down at night hungry than he should lie down after a very full dinner, the consequence of either being disturbing and harmful. A cracker or two, a bit of bread and butter, or cake, a little fruit—something to relieve the sense of vacuity, and so restore the tone of the system—is all that is necessary.

We have known persons—habitual sufferers from restlessness at night—to experience material benefit, even though they were not hungry, by a very light luncheon before bedtime. In place of tossing about two or three hours as formerly, they would soon grow drowsy, fall asleep and not wake more than once or twice until sunrise. This mode of treating insomnia has recently been recommended by several distinguished physicians, and the prescription generally attended with happy results.—*Scribner's Magazine.*

DOMESTIC ECONOMY.

Salads and Dressings.

"Daisy Ey ight" always writes well and always tells her readers things true and useful, whether her subject be flower gardening, cookery, or domestic economy. She says, for instance, of salads (in the *Country Gentleman*) that if we would use them, as the French do, as an article of daily food, we should not engender so many disorders of the blood as we do by eating so much fat meats, and butter and sugar in its varied forms of cakes, pies, puddings, etc. She offers the following recipes, which we hope our fair housekeepers will try for themselves:

MAYONNAISE DRESSING.—This is for lobster or chicken salad, and is made as follows:

Break the yolks of three raw eggs into a salad bowl, add a little salt and white pepper; stir it with a wooden spoon with the right hand, while with the left you add, very slowly, about half a pint of pure salad oil, poured from the bottle held in the left hand. Beat it for twenty minutes, and add pepper and salt to your taste. Beat the whites of two eggs to a stiff froth, and stir rapidly into the dressing. Now add about two large spoonfuls of vinegar, more or less, according to its strength, and blend all thoroughly together until it is as smooth as glass; if not so, add a few drops of cold water to mingle the whole mixture. Take the lobster from the shell; leave the legs and the "coral" to be used as garnish; cut the remainder into small dice and place in a deep bowl; add to it small heads of cos lettuce (which is the light green variety, and very tender, but the common kinds will do), garnish the dish with capers and lobster claws and "coral," sliced hard-boiled eggs and olives, first, turning the mayonnaise all over the lettuce.

If you desire to make chicken mayonnaise, roast the fowls, basting them frequently with butter dissolved in water; when roasted tender, remove the flesh from the body, wings and legs; cut in small mouthfuls, and add either celery, lettuce, or chopped cabbage—the first, if well blanched, is preferable. Garnish with slices of boiled beets, hard-boiled eggs, and olives.

CABBAGE AND HAM SALAD.—Take two small heads of cabbage, well washed, and chop them quite fine; slice off a dozen or more thin slices of tender boiled ham. Mix the two together in a salad bowl. Make a dressing of two raw eggs, mixing the yolks with half a teaspoonful of mustard, stirred up in boiling water; then add three tablespoonfuls of sour cream, just skimmed from the pan, or one small teaspoonful of salad oil, poured in very slowly, as directed for mayonnaise. Stir for ten minutes, adding a little salt and pepper. Beat the whites of the eggs to a froth, and add to it; also four tablespoonfuls of vinegar. This makes a delicious side dish, or a course at the dinner-table, and the housewife will find it a toothsome substitute for a hot dinner when the mercury mounts high up among the nineties, and there is ironing or washing to attend to. Chopped cold boiled potatoes can also be added; and the dish can be prepared out of cold boiled corned beef chopped fine, or from cold roast veal, beef, or mutton. Lettuce can be substituted for cabbage if preferred, and the mustard can be left out.

BOILED CABBAGE SALAD.—Boil a Savoy cabbage until tender; then drain and chop it. Serve with a salad dressing, made out of two hard-boiled eggs mashed very fine, three tablespoonfuls of thick, sour cream, one teaspoonful of mixed mustard, one teaspoonful of salt, two tablespoonfuls of strong vinegar. Stir until perfectly smooth, and turn over the cabbage.

TO TAKE OUT BRUISES IN FURNITURE.—Wet the place well with warm water, then take some brown paper five or six times doubled and well soaked in water, lay it on the place, apply on that a hot flat iron till the moisture is evaporated, and if the bruise is not gone, repeat the process. You will find after two or three applications that the dent or bruise is raised level with the surface. If the bruise is small, soak it well with warm water, and hold a red-hot poker very near the surface, which is to be kept continually wetted, and you will soon find the indentation vanished.

HOME REPAIRS OF PLASTERED WALLS.—Small holes in white plastered walls can be easily repaired without sending for the mason. Equal parts of plaster of Paris and white sand—such as is used in most families for scouring purposes—mixed with water to a paste, applied immediately, and smoothed with a knife or flat piece of wood, will make the broken place as good as new. The mixture hardens very quickly, so it is best to prepare but a small quantity at a time.

APPLE SNOW.—Pare the apples, halve and core them; put them to boil with a little water and one cupful white sugar. When the apples are cooked, lift them out without breaking; boil down the sirup and pour over. On the top place a few spoonfuls of whites of eggs; beaten to a stiff froth and seasoned with lemon.

WHITE CAKE.—Two eggs, two cups of white sugar, one cup sweet milk, one-half cup butter, beat to a cream; two tablespoonfuls cream tartar, one teaspoonful soda, three and one-half cups flour. When baked, sprinkle the top with white sugar, and place spoonfuls of jelly on the top.



A. T. DEWEY, W. B. EWER, G. H. STROM, J. L. BOONE
PRINCIPAL EDITOR.....W. B. EWER, A. M.

OFFICE, No. 224 Sansome street, Southeast corner of California street, where friends and patrons are invited to our Scientific Press, Patent Agency, Engraving and Printing establishment.

Subscriptions payable in advance.—For one year, \$4; six months, \$2.25; three months, \$1.25. Remittances by registered letters or P. O. orders at our risk.

ADVERTISING RATES.—1 week. 1 month. 3 months. 1 year
Per line.....25 .80 \$2.00 \$5.00
One-half inch.....\$1.00 \$3.00 \$7.50 24.00
One inch.....2.00 5.00 14.00 40.00

No Quack Advertisements inserted in these columns.

GET UP CLUBS FOR THE RURAL PRESS.

OUR SUBSCRIBERS and other reliable persons are authorized to get up clubs of five or more subscribers for this paper at \$3 per annum for each name. Our terms for all subscribers are cash in advance. Postage will be prepaid by us after January 1st, 1874. The papers will be addressed singly to each individual. Regular subscription price \$4. Sample copies free. Let those who will work for the Rural Press in mind that they will confer a lasting benefit on new subscribers, besides improving their own talents by business practice. Try your hand and report at once. We offer all a chance. You do not know what can be done till you try!

SAN FRANCISCO:

Saturday, March 27, 1875.

TABLE OF CONTENTS.

GENERAL EDITORIALS.—Champion Iron Drag Saw: The Yield of the Coming Harvest; Cranberries, 193. A Little Ballast Needed; Students in the Field, 200. Patents and Inventions, 204.
ILLUSTRATIONS.—The Champion Iron Drag Saw, 193. Economy of the Vegetable Kingdom, 200-201.
CORRESPONDENCE.—In and About Los Angeles: Land in Contra Costa and Alameda; California Woods—Useful and Ornamental; Crops in Los Angeles County; Still Farther from Tulare County; From Hydeville, Humboldt County; Anaheim and Vicinity; From San Luis Obispo County; From Coloma; Alfalfa Parasite, Etc.; The Plummer Fruit Dryer; The Riverside and Other Colonies, 194. Co-operation in Building New Homes, 195.
SHEEP AND WOOL.—The Wool Market, 195.
POULTRY YARD.—The Number of Eggs in a Hen; Good Prices for Improved Poultry, 195.
THE DAIRY.—Points in Butter-Making; A Cure for Sucking Cows; Brine for Preserving Butter; Sowed Corn for Milch Cows, 195.
PATRONS OF HUSBANDRY.—Progress of the Patrons in California; New Granges; Meetings; Etc., 196-7.
AGRICULTURAL NOTES from various counties in California, 197.
HOME CIRCLE.—Remembrance (Poetry); Answer to "Flora"; Mankind not so Bad, after all; Jerking the Reins; Costly Charity; Why Men will not Marry Now-a-Days; Our Faces—Open Books; A Deer Killed by a Young Girl, 198. An Engaging Manner; What am I Good For? Better than Gold; A Good Custom; Early Morning, 199.
YOUNG FOLKS' COLUMN.—'Cos He Sang So; A Hint for Boys; The Rothschild Women, 199.
GOOD HEALTH.—Take Good Care of your Servants; Sleeplessness, 199.
DOMESTIC ECONOMY.—Salads and Dressings; To Take out Brains in Furniture; Home Repairs of Plastered Walls; Apple Snow; White Cake, 199.
POPULAR LECTURES.—Economy of the Vegetable Kingdom, 200-201.
HORTICULTURE.—The Scuppernong in North Carolina, 201.
MISCELLANEOUS.—An Appropriate Emblem; Glue to Resist Fire, 195. Agricultural Items, 197.

WHAT THE LADIES SAY OF US.—One of the fair contributors who add "the charm of woman's presence" to the RURAL PRESS, writes as follows:

EDITORS PRESS:—Is it possible that you have forgotten me? I did not receive my RURAL PRESS for last week, and haunted the Post-office on the arrival of every train, asking anxiously, "Has my RURAL Press come yet?" But, alas! up to this date I have not received it, and "woe is me!" must ask you to send it, as I cannot possibly keep house without it. So don't drive me to desperation and boarding houses. A short time ago I was in Saratoga, (not in New York, but less than a dozen miles from San Jose) and met a very pleasant lady, who said that she thought the RURAL PRESS was a splendid paper, and that she could not do without it; so you see you are appreciated, and long may you live. E. E. A.

[In answer to the above gentle complaint we say that we at once forward the missing number, which she has probably received ere this. We could not think of stopping her paper—or her.—EDS. PRESS.]

An evidence that the India-rubber tree takes kindly to the soil and climate of that locality, one of more than four and a half feet in height says the Contra Costa Gazette, may be seen in Mr. Blum's grounds, in thrifty growth, which was planted there about a year ago, when but twelve inches high.

Quite a number of farmers near Livermore are rolling their ground with the view of keeping in the moisture. It will also facilitate the movement of machinery during harvest time.

Our harvesters are referred to an advertisement of Johnson & Bro., of Dixon, Cal., concerning their patent improved sickle bar.

A Little Ballast Needed.

That the probable influx of immigration to California during the present year will be above all precedent in numbers is manifest to all; but how many tens of thousands or hundreds of thousands it will aggregate is a question which none but those who from their fear of incurring the suspicion of dealing in generalities, betake themselves to slinging figures at random, would state. If these indications were only to be found in the papers of our own State, it would naturally arouse the suspicion that it was a mere spasmodic effort on their part to induce emigrants to come hither, for the sake of the benefits which they and the money they bring with them will confer upon the country; but when we find the press of the Southern, the Eastern, the Middle and even what was only a few years since considered the States and Territories of the far West, uniformly giving assurance of the same great movement, to withhold our credence to the same is no evidence of unusual consideration; and to fail to recognize and to meet the responsibilities which we incur by this unprecedented emigration would be greatly to the discredit of our State.

The people of California, and its press, especially, incur responsibilities in this connection of a serious character. The time for expatiating on the glorious advantages of the country is past. Let us do all in our power to clear the way for this truly grand army, and make these advantages available to the immigrants. The danger most imminent in the present situation is that undue influences may be exercised in turning this tide of immigration toward places where the energies of the new comers will be wasted and their substance consumed to the profit of incorporated or individual speculation. The San Francisco Chronicle has apparently come into possession of a batch of enquiries similar to those we have had pouring in upon us, the only noticeable difference being the fact that we have answered them.

In liquidation of its indebtedness to these enquiries, the following liberal statement is given: "Places and profitable employment can be found within the next twelve months for 200,000 immigrants." This is one of the many things that are easier said than done. As the view of this subject was taken from an agricultural look, it is to be inferred that this promise is made principally with reference to farm labor, and the idea that the present year's labors requires this number of additional hands, and that "the needful" will be forthcoming to pay them profitable rates for their labor, is a delusion, at the best. There is always a demand here for harvest hands during the harvest season, and the large increase of acreage given this year to grain—supposed to be one-fourth—will add greatly to this demand, drawing more largely than ever on the surplus labor population of our cities, and also furnishing ready employment to many new comers, but to no 200,000.

We would advise those who wish to enter the California harvest field to come as soon as practicable. In the earliest grain growing districts the harvest commences in May, and in the latest closes in September, so that the unencumbered harvest hand can begin at the opening of the season and following up the great grain field of the State in its course of ripening, can work through four months of harvesting.

At the close of this long-continued harvest, the time will have arrived for commencing farming operations for 1876, and those who have passed through this campaign will have acquired a greater amount of available knowledge of California farming than they could gather from all the books and papers in the world. The best of Eastern farmers will find that they have much to learn and unlearn before they can enter into the joys of California agriculture; but they will be in a school where there is no dogmatism, and where people are as ready to receive as to impart instruction. Meanwhile, by their own observations, and from intercourse with others, they will become informed as to the peculiar advantages which different localities offer, and would thus be able to make a judicious choice of places for their future homes.

But we have good reasons for supposing that of the expected immigration, a larger percentage than usual will come here to give instead of seek employment. This, we predict, will be its most striking peculiarity. This phase of the subject is very naturally not given through the press; but we learn through private parties of innumerable cases where the intended change is altogether a matter of choice, necessity having nothing to do with it.

ON FILE.—"Farm House Chat," M. M.; "Manufactories of San Jose," Much; "Further from Mussel Slough Country," J. T. Mo.; "From Borden, Fresno county," Farmer; "Reading Grange," Jones; "From Ferndale," I. B.; "Twelve Years Ago," W. A. S.; "Petaluma Grange," F. P.; "From Colorado Springs," W. T. H.; "Ferndale Grange," J. S.; "From Hungry Hollow," Clodhopper.

OUR SUPPLEMENT.—The RURAL PRESS of next week will be accompanied by an eight-page supplement, containing among other matter the newly revised Grange Directory.

Students in the Field.

The first of a series of explorations, under the auspices of the University of California, is to be made during the coming spring recess, which began last Thursday. These explorations or surveys are designed to illustrate and teach in the field what is taught in the lecture-rooms at Berkeley, and will include geology and mineralogy, topography, surveying, zoology, botany and related studies. In conducting this out-door work the party will be under the usual discipline which is observed in governmental expeditions of the same general character. The objective point in this instance will be Mount Diablo and the country intervening between said place and Berkeley. In order to make the work more effective the number of the party is limited, including some of the professors in the scientific colleges, and others selected according to their specialties in natural sciences.

When the party returns, the material collected and the field notes and general observations are to be properly worked up and a report will be made to the authorities of the University by the Secretary of the Association, F. A. McLean.

The expedition is under the charge of Prof. Jos. LeConte. The party is composed of the following persons in their specialties: In Natural Science, Prof. Jos. LeConte; Geology, Prof. W. B. Rising and F. State Jr.; Chemical Geology; A. W. Jackson, Jr., Mineralogy; F. P. McLean, Botany; John Stillman, Geology. The Engineering Department is under Prof. John LeConte, assisted by G. C. Edwards, L. L. Hawkes and E. A. Parker.

The above mentioned will probably be joined at the mountain by President Gilman, Prof. W. H. Brewer, of Yale, now lecturing at the University; Drs. A. Kellogg (curator of the museum of the California Academy of Sciences), and W. P. Gibbons, botanists, and Secretary R. E. C. Stearns in natural history. We shall give some account of the result of these explorations.

The Grass Season.

According to accounts received from the grazing districts, owners of stock are likely to suffer more than wheat growers from the present dry season. The early rains produced an unusually fine growth of grass, the grazing season opened exceedingly promising, and throughout the winter cattle were doing remarkably well; but for some weeks past grass has made very little growth, feed has been failing, and owners of stock are shifting their grazing quarters earlier in the season than usual. It is hoped that we shall yet have rain sufficient to retrieve the damage thus far incurred by the wheat crop from want of rain, but we apprehend, grass will not be benefited in like manner by any amount of rain that we may now reasonably hope for. The present outlook for the grazing season is not alarming, but is certainly divested of the cheerful hue which it bore in mid-winter.

WASHBURN & RANDALL'S HORSE AND MULE MARKET.—Washburn & Randall have established at the corner of Fifth and Bryant streets, a horse and mule market which will prove very convenient to parties wishing to purchase or dispose of anything in that line. The premises occupy four fifty-vara lots, divided into corrals, and fronting on Bryant street is a spacious and airy stable with ample accommodation for one hundred horses. This firm is now importing from the East and disposing of from fifty to one hundred horses a month. Farmers will find at these stables a large stock of farm, draft or carriage horses, suitable for any work, at almost any price. Those driving cattle through the city will discover the corrals of Messrs. Washburn and Randall a good place to feed and rest their stock. This is a new enterprise in San Francisco, and thus far it has proved a successful one.

DEAF, DUMB AND BLIND ASYLUM.—A new building is being erected at Berkeley, near the ruins of the former asylum, which is to be ready for occupancy by the 14th of April. It is a wood structure, strongly built, so as to be well adapted for work-shops for the pupils, whenever the main buildings shall be rebuilt. The contract price is \$14,870. Mr. Duncan is the supervising architect. Mr. Wilkinson, the superintendent, who met with severe losses by the fire, is active and hopeful for the future, and we hope he will receive the countenance and aid necessary to go on with the school.

AN HONORABLE APPOINTMENT.—We are pleased to learn that Dr. E. S. Carr, of Oakland, has been appointed a member of the Board of Examinations of the United States Naval Academy at Annapolis, Maryland. A session of the Board will commence on the 10th of June next. We are at liberty to say that our worthy representative from the Pacific Coast expects to be present.

REPORT ON INSECTS.—Professor C. E. Bessey sends us a copy of "Report on Insects," extracted from the Report of the State Agricultural Society of Iowa. Thanks again to the Professor.

POPULAR LECTURES.

Economy of the Vegetable Kingdom.

Ninth Lecture Delivered before the University of California College of Agriculture, on Friday, January 29th, by PROF. C. E. BESSEY.

[Reported and Illustrated for the RURAL PRESS.]
Insectivorous Plants.

A week ago I called your attention to some peculiar things, certain peculiar relations existing between plants and insects. Now, strange as these relations existing between plants and insects may seem, there are others stranger still. If it is a strange thing that insects in visiting certain plants in search of honey must pass into the flower by one channel and out by another, or, if the slight motion imparted to the stamens excites our wonder, what shall we say of the plants which have paths dotted with nectar to lure honey-loving insects, or those with traps set for their prey, which, when caught, they afterwards digest; or those still stranger ones which actually reach out and seize the unfortunate insect that ventures too near and hold it in an embrace which only ends in the total destruction of the victim? Such plants, the ones of which I shall speak this afternoon, may very properly be called insectivorous (insect-eating).

There are the Pitcher plant, Sun Dew, Fly-trap and a few others, and we have here before you illustrations of them.

The Fly-trap is represented here, [Fig. 1.] There are several species of the genus *Sarracenia*, and this genus is well represented by these two diagrams; this found in the Northern States, and this found in the Southern States. [For a representation of one species, see Fig. 2.] Several species of this genus have, as you know, leaves which are pitcher-shaped, or in some cases trumpet-shaped. You see the upper one bears some faint resemblance to a pitcher. These are allied to it. [The Professor here pointed to sketches illustrating different plants, pointing out some of their peculiarities.]

These leaves have more or less water in them, or, a watery fluid.

This fluid is secreted at certain times—

Not at all Times—

Sometimes there is no fluid.

At other times you find an abundance of it. It is found upon chemical tests to have a decided re-action. If any meat or organic matter is put into this fluid, it will act as a solvent. Bits of flesh allowed to remain in it for a time will be found to have dissolved much more rapidly than if they had been placed in ordinary water.

This fluid, instead of being rained in, as it might seem, seems to be actually secreted. That is, there are little glands placed along from this point downward. These little glands secrete this fluid and pour it out. [The lecturer then spoke of certain peculiar arrangements in the habits and structure of these plants, showing that this fluid certainly is a secretion, and is not rained into the receptacle containing it.] Above this surface, which is found in these tubes, the inner walls are made exceedingly smooth, and above this smooth track is another, covered over with bristles, which are pointing downward, and so arranged that as an insect visiting the flower gets upon this it loses its foothold very readily.

So you see how it would act. Supposing an insect happens to get into this water here and tries to get out; it first has to cross this smooth track, and if it succeeds, above that then it meets this array of bristles. The edge of these bristles is so smooth it cannot get any hold at all, as there seems to be a *cheval de frise* of the cavity. Around the mouth is a

Track Covered With Honey.

And this is secreted in some species in very great abundance. And more than this, there is a little pathway of honey right around this point [refers to diagram], and upon this lid-like portion there are little drops of honey, and then along this to this part right here.

These honey drops are placed along so that insects are attracted by this. They follow it up just the same as a pig follows up a trail of corn. The insect passes just over the edge of the leaf, plunges down and over it, goes into the bath below, and, from experiment, it is found they can never get out.

Now this watery fluid into which the insect falls has an acid reaction, and is somewhat allied to the gastric juice of the stomach, so that it actually digests these insects. This fact of the arrangement of this honey pathway for luring the insect to the ton of the leaf and then having it fall into the fluid secretion was just made out within the last year by certain physicians in the Southern States.

This is the *Darlingtonia Californica*, [Fig. 3.] It differs from this order of pitcher plants in this: that while in this case [Fig. 2.] the upper part of the leaf is more or less open and exposed to the air, in this, [Fig. 3.], the open point is away under this edge, and from the edge of this opening there is hanging down a very strange appendage, which has a red color; and, by the way, I should call your attention to the fact that we have some brilliant colors placed up here close to where the lure is given. A portion of the plant is

Smeared Over.

To use an observer's own expression, with honey. Now, see how the insects act. Insects usually visit the flowers which have some

bright color or which have some strong odor, some fragrance; those are the things which usually attract them. The insect, flying along, notices this, and is lured on until very soon it is toppling over into this water in here, where it is imprisoned and very soon is digested.

Now another thing pointed out by an observer is this: This appendage is found to have about the same color as the plant itself, and he makes this suggestion that it would be well to notice whether the plant has not attempted here to feed these insects in one case and in the other case to feed upon them; whether those of the very same color, which in one case would give the insect honey and pollen and everything that it wants, in the other case following it up carefully—will not be found to lure it on till it flies over into this cavity and is destroyed. Some hold that in this case, as in this other, there are smooth tracks, perfectly smooth, so that the insect can readily pass on and that others are covered over again with retrorse prickles so that when an insect is once in there it stays there, and never can get out. In an allied form, but in a near relative, the

Pitcher Plant

Of the East having very near the same arrangement. This is the plant found in the Eastern Hemisphere. It climbs by these tendrils. This plant has been known a great many years, simply as a curious one. You find it spoken of in all your botanies as an example of what a plant can do in modifying its original leaf form. Dr. Hooker thinks this has also a leaf track as there is more or less honey also upon this. There is also found abundance of water in here which has the same chemical characteristics, so that it actually works the same way the *Darlingtonia* does. This is a species of *Sarracenia*. These are known as the Pitcher Plant Fly Traps. As to the use made of the captured insects, it would appear from the observations made within the last year that it is altogether likely, perhaps quite certain, that the plants make use of this decaying matter in just the same way animals make use of the food received which is in their own stomachs; so that these are so far like animals.

Drosera, or Snn Dew, is one of the small marsh plants. Its leaves are covered over with little viscid, glandular hairs. If a piece of organic matter such as an insect or piece of beef be dropped upon one of these little leaves, the hairs very soon begin to turn toward this bit of beef. Very soon they touch it with their little glandular tips, and when one touches it sticks. Very soon the leaf folds over the insect and actually in a short time it coils around so that thirty, forty, or fifty of these little hairs close around the insect; of course the insect is destroyed.

Mrs. Mary Treat, an observer in New Jersey made the following observations:—

At fifteen minutes past ten she placed a piece of raw beef upon a leaf of one of her plants and at ten minutes past twelve,—that is just about two hours—two leaves had folded over the beef, partially or entirely biding it from sight.

At 11:30, the same day, she placed living flies upon leaves of the plants, and at 12:48—a little more than an hour afterward—one of the leaves had folded

Entirely Around its Victim,

And some time after the fly had ceased to struggle. At 2:30, four leaves had each enclosed a victim. She tried mineral substances and pebbles, but in twenty-four hours neither of the leaves had made any move like clasping these articles. Evidently they knew what was good for them. She wet a piece of chalk in water, and in less than an hour bristles were curving about it, but soon unfolded, leaving the chalk free upon the blade of the leaf. It was found, in making experiments with another species, with a piece of apple, after eleven hours part of the bristles were clasping it, but not many of the glands were touching it. Evidently it didn't like apples as well as it liked beef. The same observer found that when live flies were pinned at half an inch distance from the leaves, the leaves moved toward the insects, and in less than two hours had reached them.

I don't know how to explain it, I don't know how the plant in that case knew the fly was a half an inch away from it, but in some way it did know it, and managed to go over and grasp it.

The *Dioncea*, or Fly Trap, is perhaps, all things considered, the most wonderful plant of which we have any knowledge; though almost all plants become more and more wonderful, the more we study them. The plant is somewhat peculiar in structure, having a dilated bell-like portion, and at the top of this it bears a sort of rounded blade with a kind of enlarged fringe in the centre. This, as you see, bears little bristles, so that when these two sides come together they meet thus: [The points of the bristles passing by each other.] Upon the surface, upon each side are three or four bristles. These are sensitive.

These two sides fit together in such a manner that the action is much the same as an ordinary rat-trap; where you open out the jaws in this way, and if you happen to touch the spring here, the jaws spring suddenly together. The action is almost the same. I have frequently taken a pin and irritated these little hairs and they would clasp with a quick motion, just like a little trap. Now, if an insect happens to alight on this upper portion, and happens to strike one of these little hairs, you see what the result would be; it would be caught.

Now, you see why these hairs are made so that they close in that way.

These hairs, by thus closing in, make a prison with little bars. The insect tries to get out, but usually does not succeed. It has been known for a great many years that flies were caught by this plant, so it was called the "Fly Trap."

Botanists looked at it as a curious plant and it was called the fly plant. Mr. Darwin, however, discovered that there was something in the plant more than the catching of flies, and to him we owe very much of the knowledge we

Her account reads more like feeding an animal than like feeding a plant:

"May 5th, plant No. 1. Two leaves caught house flies. Another leaf caught a large blue-bottle fly. May 12th. The two large leaves on No. 1 which caught house flies are opening." That is, the flies were dissolved and absorbed and the leaves opened out in a good healthy condition, ready for more flies. "But the leaf which caught the large fly has succumbed." That seems to be very frequently the case; when it has taken an overdose it seems to be taken with indigestion. "May



Fig. 3—DARLINGTONIA CALIFORNICA.

have of it. This last two years or so, many facts have come out. We don't know very much about this plant. We do know enough, however, to regard it as far more than a curious thing, it is a wonderful plant, and when we stand before it, we see attributes which we had supposed peculiar to animals alone. It not only destroys flies. It is destroying just as effectually many of our old ideas of the essential difference between plants and animals. Mr. Canby, a botanist, of one of the Southern States, finds that the insect caught



Fig. 1—Two Leaves of the Fly Trap.

as prey is absorbed, so that in one or two weeks nothing but the shell of it remains. The leaf pours out a fluid which is like the gastric juice, and has the power to dissolve the insect. That is what Mr. Canby found out.

Mr. Darwin finds that this fluid is acid in its reaction, just as the gastric juice; that is, not only has it the same chemical reaction, but it also acts as does the gastric juice. Mr. Canby further finds that when the insect has dissolved, in a few days it is absorbed, so that in one or two weeks nothing but the shell of the insect remains. The leaf is then opened and is ready for its second meal.

Mrs. Mary Treat, of Vineland, the same observer before mentioned, last spring made some observations upon three of these plants.

5th. A strong leaf has closed over an insect almost as large as a squash bug. June 5th the leaf opened. Leaf healthy. Nothing left of the bug but the shell." Entirely dissolved, as you see. "June 14th.

It has Digested the Bug."

The beetle is longer in being digested, and so



Fig. 2 *Sarracenia Drummondii*.

it goes on. She says: "In this way I managed to get nine beetles entrapped, but only one leaf was strong enough to digest its victim. My favorite plant, the strongest one, from May 1st to October has caught forty insects and digested most of them."

That is, a little plant, only about four or five inches in height, with these leaves three inches in length, a little plant like that catching and

Digesting Forty Flies!

A rather strong story.

Mr. Darwin, who has long been at work upon these plants, discovered that they possessed something analogous to the nervous system. By pricking the plant with a sharp instrument it became paralyzed so it remained motionless. That is, he took one of these leaves, pricked it with a lancet, so it was just as motionless as a man's hand would be when severed from its nervous connection with the brain; while the other part would respond, just as my hand would respond to a message sent along the connecting nerves. I have thrown hastily together here a few of the peculiarities of these plants. I trust that they may not be entirely uninteresting to you.

HORTICULTURE.

The Scuppernong in North Carolina.

MESSRS. EDITORS.—Last year, in the months of March and April, you invited correspondence in regard to the merits and demerits of the Scuppernong grape. Again, in No. 8, of date of February 20th, this year, you ask for "reliable information" upon the subject. In that article you say "as a wine grape it is said to be very valuable." Well, let us see what a vineyardist of forty years' experience says of its valuable qualities: Remembering years long gone by of its excellent qualities of this variety, and believing that whatever tends to the advancement of any particular branch of agriculture inures to the benefit of others, and as many have given their ideas upon the subject of the Scuppernong, allow me to reproduce a few ideas advanced by Mr. L. Froelich, of Enfield, Halifax county, North Carolina. He says as follows, so far as his experience goes, that after the first two years he found that he had planted his vines too closely. He also pruned his vines too severely, the result of which was knotty fruit. He then cut out one row of alternate rows, and each alternate vine in the rows remaining. The change demonstrated beyond a peradventure his judgment, and heavy crops followed.

Subsequently planting fifteen by eighteen feet apart, then thirty feet, then forty-five feet, and finally seventy feet; and every change thus made produced a corresponding increase in quantity and quality.

The Scuppernongs are only fit for wine making, ripening late, and requiring to be gathered within twenty-four hours of ripening. This gentleman is an enthusiast in the culture of this variety. The vine grows kindly in any kind of soil, from the dryest sand hill to the lowest swamp land, abundantly fruiting in all variety of soils and no indication of disease. The best soil, he remarks, is land underlaid by clay and naturally drained. The vine roots are planted one and two in holes four feet square. The first season he pinched off all side sprouts, allowing only the main shoots to grow. This must be done in the summer time and while the wood is green. The Scuppernong will not bear winter pruning, and this is the cause of the failure of those gentlemen who have failed to make this favorite a specialty, and they also forget that a limb a quarter inch thick pruned from a half grown vine will cause it to discharge a gallon of sap in a day, which fatality impoverishes its vitality. The second year the vines must be supported, as they grow rapidly; therefore he uses a temporary arbor of four poles at the corners of a square, ten feet apart. It is also important that the vine be spread in all directions equally, giving full access to air and sunlight which ripens the fruit uniformly. This work is done in December. The third year the process of manuring is commenced and repeated every two years. The roots of the vines spread out as far as the vines of the arbor. A trench is dug around outside roots, two spades wide, one spade deep, and filled with compost. With all these precautions, the vines will meet in nine or ten years. Each vine will bear in the third year about a peck of grapes; in the fourth year, two bushels; in the fifth year, five bushels. He claims that full bearing they average 400 to 500 bushels per acre, from which 2,500 gallons of juice is pressed. The gentleman further remarks that the Scuppernong is the only vine in the world that will produce this quantity of grapes or wine, and the only vine known for two hundred years without disease. Vines in his neighborhood have reached the remarkable age of one hundred and fifty years, and cover one and a half to two acres. A vine in Nash county, of this age, covering two acres of ground, yielded, in the year 1870, forty-eight barrels of wine, although its supports were dilapidated, and not a cent had been expended in cultivation. This gentleman insists upon great care in selection of well rooted plants, raised from thrifty, ripe wood; should be laid about February, and will be ready for planting the following autumn. He claims that from the juice of one acre of grapes can be made 300 gallons of brandy, or 3,000 gallons of vinegar valued at fifty cents per gallon. His grape brandy, one year old, brings \$5 per gallon in New York, and that city is the best market, and mostly sold by the 1,000 gallons as champagne. Further gives the process of gathering, making, etc., to which I refer those interested upon the subject to his able article in the Agriculture Report of the U. S. Department, for the year 1871.

If the above benefits any one, and will promote any interest therein, I will have accomplished all that I desire. E. A. ANDERSON.

Elmonte, Los Angeles Co., March 14th, 1875.

BREEDERS' DIRECTORY.

PURCHASERS OF STOCK WILL FIND IN THIS DIRECTORY THE NAMES OF SOME OF THE MOST RELIABLE BREEDERS. OUR RATES—Six lines or less inserted in this directory at 50 cts a line per month, payable quarterly.

CATTLE.

R. ASHBURNER, Baden Station, San Mateo Co., Cal., breeder of Short-horn cattle. Pure Bred Bulls for sale, from cows of choice milking strains.

J. BREWSTER, Galt Station, Sacramento Co., Cal., breeder of Short-Horn Cattle.

J. D. CARR, Gabilan, Monterey Co., Cal., breeder of Trotting Horses, Short-Horn Cattle, Thoroughbred Spanish Marino Sheep and Swine.

A. MAILLARD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.

W. L. OVERHISER, Stockton, San Joaquin Co., Cal., breeder of Short-Horn Cattle and Berkshire Swine.

PAGE BROTHERS, 304 Davis street, San Francisco, (or Cotate Ranch, near Petaluma, Sonoma Co.): Breeders of Short-Horns and their Grads.

STANTON & POWERS, Sacramento, Cal. Breeders of Jersey Heifers and Bull Calves at low rates. Address L. C. Powers, Sacramento, Cal.

MOSES WICK, Oroville, Butte Co., Cal., breeder of Short-Horn Cattle. Young bulls for sale.

SHEEP AND GOATS.

MRS. ROBERT BLACOW, Centerville, near Niles Station, Alameda Co., Cal. Pure-Blooded French Merino Sheep for sale.

TIOS. BUTTERFIELD & SONS., Hollister, San Benito, Cal. Importers and breeders of Angora Goats and Sheep.

N. GILMORE, El Dorado, El Dorado Co., Cal., importer and breeder of Angora Goats.

LANDRUM & RODGERS, Watsonville, Santa Cruz County. Pure-Bred Angora Goats and Cotswold Sheep for sale.

SEVERANCE & PEET, Niles, Alameda Co., Cal., breeders of Thoroughbred Spanish Merino Sheep.

A. G. STONESIFER, Hill's Ferry, Stanislaus Co., Cal., breeder of Pure-Blooded French Merino Sheep.

L. M. SHIPPEE, Stockton, Cal. Importer and Breeder of Spanish Merino Sheep, Durham Cattle and Essex Swine.

POULTRY.

GEO. B. BAYLEY, Cor. 16th and Castro streets, Oakland, Cal. Imported Brahmas and other choice Poultry for sale.

ALBERT E. BURBANK, 43 and 44 California Market, San Francisco, importer and breeder of Fancy Poultry, Pigeons, Rabbits, etc.

M. EYRE, Napa. Bronze Turkeys, Emden Geese, Choice Fowls, Pigeons, Rabbits, Ferrets.

Mrs. L. E. McMAHAN, Dixon, Solano Co., Cal. Bronze Turkeys now ready for sale from the best imported stock; also eight varieties of choice Chickens; Eggs in season can be purchased very reasonably.

Mrs. L. J. WATKINS, Santa Clara. Premium Fowls. White Leghorns, S. S. Hamburg, Game Bantams, and Aylesbury Ducks. Also, Eggs. 21v8-3t

Poultry Breeders.



Woodland Poultry Yards.

W. J. PRATHER, - - Proprietor.

PRICE LIST:

Eggs PER DOZEN.	FOWLS PER TRIO.
Light and Dark Brahmas.....\$1.00	\$15 to \$25
Buff and Partridge Cochins.....5.00	15 to 25
White Cochins.....5.00	15 to 25
White Polands.....6.00	15 to 25
Houdans.....4.00	15 to 25
S. and G. Spangled Hamburgs.....6.00	15 to 25
White Leghorns.....4.00	12 to 20
Brown Leghorns.....5.00	15 to 25
Golden Seabright Bantams.....5.00	12 to 15
Bronze Turkeys.....8.00	PER PAIR.
Roses Ducks.....4.00	\$30
Black Cayuga Ducks.....4.00	10
Aylesbury Ducks.....4.00	10



LOOK!

ALBERT E. BURBANK, Importer and Breeder of Fancy Poultry, Pigeons, Rabbits, etc. Also Eggs for hatching from the finest of imported stock. 50¢ and Fowls at reduced prices. Send for Price List.

ALBERT E. BURBANK, 1v8-3m 43 & 44 Cal. Market S.F.

WHITE LEGHORNS.

I make these fowls a specialty and have spared no pains or trouble in procuring stock from the finest strains in the United States, and now offer eggs for hatching at Eastern prices from the finest fowls on the Pacific coast. They are small eaters, non-setters and very hardy, and for eggs are without a rival, being almost constant layers, and are truly styled the "farmer's fowl." Eggs, \$3 per dozen, (12) or six dozen for \$15. Securely packed to carry any distance, and delivered to the express on receipt of price. Cash to accompany order and orders taken in rotation. Sebastopol, Sonoma county, Cal. W. J. HUNT.

EDGORTH POULTRY YARDS.

R. F. SHANNON,

Breeder of

Light and Dark Brahmas, Silver Duckwing and Black Breasted Red Game Bantams. P. O. Box 563. PITTSBURGH, PA.

Light Brahma Eggs, \$2, gold; Dark Brahma Eggs, \$3; Bantams' Eggs, \$3. Orders received for Pigeons to be delivered in the Fall. At Pittsburgh Show, January, 1875, on 4 coops fowls and 8 coops pigeons, won 6 firsts, 2 second, 1 third and 9 specials.

E. M. Hively's Poultry Yards,

YOUNGSTOWN, OHIO.

20 Varieties Land and Water Fowls,

—ALSO—

PIGEONS AND EGGS IN SEASON.

Correspondence Solicited.

S. H. COOK,

BREEDER OF

CHOICE LIGHT AND DARK BRAHMAS,

B. B. R. Game Bantams,

Mammoth Bronze Turkeys,

TOULOUSE, BREMEN AND AFRICAN GEESSE,

ROUEN AND MUSCOVY DUCKS.

Some choice Light and Dark Brahmas for sale Also, Bronze Turkeys. Address

S. H. COOK,

McDonald's, Washington Co., Pa.

Send for Price-List.

T. A. WINFIELD,

Hubbard, Ohio.

Breeder of CHOICE POULTRY, BRAHMAS, COCHINS, BLACK AND RED GAMES, GAME BANTAMS, HAMBURGS AND POLISH.

Also, Choice collection of Fancy Pigeons. Send for Price-List. Eggs for sale in season, from \$3 to \$6 currency.

C. B. ELBEN.

I make a specialty of

Fine Light Brahmas,

AYLESBURY AND CALL DUCKS

BLACK AFRICAN BANTAMS, &c.

Send for my new Catalogue and Price List.

C. B. ELBEN, Pittsburgh, Pa.

J. S. BEANER.

BREEDER OF

WHITE LEGHORNS.

My fowls are from stock that took the Special Premiums at the Boston Poultry Show in 1873 and 1874 Also at Pittsburgh this year. Eggs \$3 per setting. My P. O. address is Rochester, Beaver County, Pa. Correspondence Solicited.

J. S. HALVERSTADT & CO.,

Breeders and Shippers of

HIGH CLASS POULTRY

Embracing all

THE LEADING VARIETIES.

LEETONIA, OHIO.

Chicken Eggs, \$1; Turkey Eggs, \$1; Wild Geese Eggs, \$5. Letters of inquiry promptly answered. Descriptive Circulars and Price Lists sent on application.

R. H. PECK,

BREEDER AND SHIPPER OF

Fancy Poultry and Eggs, From Pure and Imported Stocks.

Having been very successful as an exhibitor, I solicit patronage. Address, with stamps, R. H. PECK, Earlville, Portage County, Ohio.

OAKDALE POULTRY YARDS.

SATISFACTION GUARANTEED.

Light Brahmas, Dark Brahmas, Buff Cochins, BRONZE TURKEYS, AYLESBURY AND ROUEN DUCKS.

A. A. MILLER.

Oakdale Station, Allegheny Co., Pa.

Correspondence Solicited.

Lands and Homes for Sale.

FOR SALE.

HOMESTEAD AND FRUIT ORCHARD

About thirty-five miles from Stockton, containing three acres of land, a good house of eight rooms, good well, etc. Over two hundred fruit trees all in fine bearing order; such as Peach, Pear, Apricot, Apple, Plum, Figs, Oranges. A fine chance and a good market. Price, \$1,800. Title perfect. Apply to

GEO. W. CHAPIN,

434 Montgomery street, S. F., or this Office.

NINE FINE

FARMS FOR SALE.

Near Middletown, Lake county, containing respectively 1600, 1100, 600, 300, 200, 130 and 80 acres. The most of these places contain as fine land as there is in California, and the home market averages twenty per cent. higher than San Francisco. When we take into consideration the quality of the soil, certainty of crops, the market caused by the development of mines and the Mineral Springs, the climate and privileges of schools and religious society, we are satisfied that no such inducements can be offered in any other part of the State, to those desiring to purchase land.

Having examined all these places personally, we can give a minute description of each. Apply to

JOSEPH PETTIT,

or WM. GORDON, No. 215 Kearny Street, Up Stairs, Ring the Bell. 3v9-1f

FOR SALE.

In the Riverside, New England and Santa Ana Colonies, in the valley of the Santa Ana river, San Bernardino county, California, twenty thousand (20,000) acres of clean, rich, level, valley land, with an abundance of water for irrigation. There is no better land in the State for the orange and all other semi-tropical fruits, and no finer climate in the world. Inquire of W. T. SAYWARD, 420 Montgomery street, San Francisco; S. C. EVANS, Fort Wayne, Indiana; C. I. HUTCHINSON, 314 California street, San Francisco; L. UPSON, General Agent, Riverside, San Bernardino county, Cal.

NEWARK LAND COMPANY,

San Francisco Bay, Alameda Co., Cal.

Title Perfect. Incorporated.

The NEWARK LAND COMPANY is now assuming shape; the Guarantees Fund paid in. This Company will be prepared in March to take 3,000 people by steamboat and railroad to their town and lands in one excursion, which will be advertised. By reference to the Coast Survey Chart it will be seen that at Potrero Point, in front of Newark the deep water comes all the way through the channel from the Pacific, with the C. P. R. R. running in a direct line through Livermore Pass, making this the connecting point between all parts of the United States, and by deep water to all parts of the globe and the greatest manufacturing point on the Bay of San Francisco—plenty of water, good climate, excellent soil and easy communication. This land will be sold at auction in April, in acres and lots. This company will commence active operations in building, etc., soon. For all information, circulars maps and subscription, apply at the office of the company, 405 1/2 California street, basement, opposite Bank of California, San Francisco.

CHAS. R. PETERS, Manager.



5,500 ACRES

Of the best portion of the old NOMELOCKE RESERVATION, in Tehama County, for sale very low; only five dollars per acre; one-third down, one-third in one year and one-third in two years, with interest at one per cent. per month. Will be sold all together or in two parcels. This is one of the finest tracts of grazing land in Northern California; is abundantly watered by numerous perpetual springs and has two miles of the Elder Creek, a clear mountain stream. Its grass never falls from drouth, and is of the best quality for sheep and has no clover hurr. 800 acres of level plow land; timber for posts, fuel, etc. Enquire of ALLEN WILCOX, Los Angeles, or F. B. WASHINGTON on the tract, twenty miles west of Tehama.

For Bleaching or Washing In Cold or Warm Water.

FALKINBURGH & CO'S

GRANGER SOAP

HAS NO EQUAL.

Don't fail to give it a trial, and be assured of a saving of money, time and labor. It speaks for itself. Warranted to accomplish more and do greater execution than any other soap. It is pressed, wrapped and perfumed.

ONCE USED, ALWAYS USED.

Sold by the principal Grocers throughout the country. Manufactured by

FALKINBURGH & CO.,

Oregon St., below Front, bet. Washington and Jackson, San Francisco, Cal. 4v9-10p

The Popular Farm Journal.

—THE—

AMERICAN PATRON

Is acknowledged by all who have examined it to be the very best paper published in the interest of the Order of

Patrons of Husbandry

And furnished at the low rate of

One Dollar and Twenty-five Cents Per Year,

With liberal reductions to clubs and Granges, and handsome Premiums to canvassers. Send for free sample copy and be convinced.

THE AMERICAN PATRON has an ably-conducted Editorial Department, dealing each week strong blows at monopoly in every form, clearly elucidating the great principles which underlie the agitation known as the

Farmers' Movement.

THE AMERICAN PATRON is a large eight-page paper, containing forty broad columns of elegant reading matter. The Agricultural Department is made up of original and select matter of general interest to the farmer.

This paper is not the rebash of a daily paper, but all the matter is carefully selected and prepared for this edition alone.

Important Inducements to Granges. Specimen copies sent free on application. Address all communications to

J. K. BARND, Publisher,

Findley, Ohio.

THE CELEBRATED

H. H. H.

HORSE MEDICINE

IS STILL AHEAD OF ALL OTHERS.

The Wholesale Druggists of San Francisco, give evidence of its appreciation throughout the State, by and rapidly increasing orders. We pledge it a cure for SPAVINS, WIND GALLS,

SWEENY, SCRATCHES,

LAME AND STIFF JOINTS,

CALLONS, LUMPS,

AND ALL BLEMISHES,

SPRAINS OR BRUISES.

It is a household blessing and no family should be without a bottle in the house. For sale everywhere.

WILLIAMS & MOORE, Prop's.,

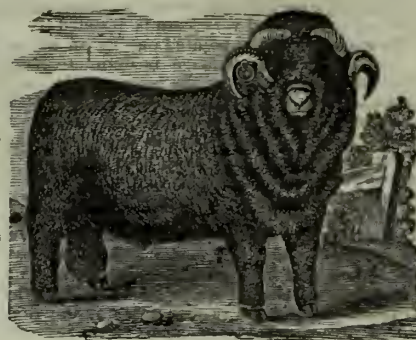
25v8-6m

Stockton, Cal.

COMPTON & BINFORD, REAL ESTATE BROKERS.

Employment and Intelligence Office, Horse and buggy free to see property. Offices at Compton, and at corner of Court and Spring streets, Los Angeles, Cal.

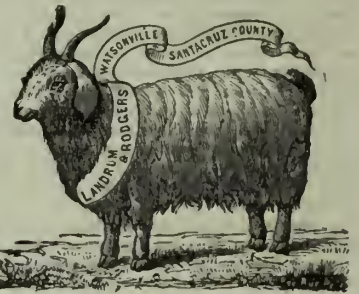
Live Stock Notices.



Pure Blooded French Merino Rams

For sale by MRS. ROBERT BLACOW, of Centerville, Alameda County, Cal., near Niles Station, on the Western and Southern Pacific Railroad.

These Sheep are guaranteed of pure descent, from the French Imperial flock at Rambouillet, and are equal, if not superior, to any of this breed in size and quality of wool, and are proved to be the heaviest shearers in the world.



We respectfully invite the attention of wool growers to our fine stock of Cotswold Sheep and Angora Goats. We have 200 head of Pure Breed Angoras to select from; we guarantee everything we sell to be as represented; our prices are as low as any in America for the same grade of stock. Call and see, or address,

LANDRUM & RODGERS,

13v7-cow-1f

Watsonville, Cal.

The Imported Draft Stallion, ADOLPH,



Will make the Season of 1875 at the Stable Proprietor,

COR. FOURTEENTH AND MISSION STREETS, SAN JOSE,

COMMENCING MARCH 1st, AND CONTINUING FOR NINETY DAYS.

Adolph was imported from Belgium to Illinois in June, 1873, and to California in October last. He is a pure-bred Draft Horse, of the French Farnamack stock, of a dark brown color, good life, kind disposition and fine movement for a horse of his size. Is seven years old, 16 1/2 hands high, and weighs 1,650 pounds.

Terms, For the Season - - - \$25.00.

Payable during the season in U. S. gold coin, or \$10 paid down and \$15 payable when mare is known to be with foal.

Mares from a distance can be kept on good pasture and cared for at \$4 per month. All accidents and escapes at the risk of the owner.

I have imported 12 head of the same stock of horses from Illinois, and invite examination and comparison with any stock of the class in the State. Four three-fourth blood stallion colts for sale. Can be seen on my farm, three and one-half miles east of the city.

L. V. WILLITS.



GABILAN HERD

Spanish Merino Sheep.

I have just purchased of Mr. George Hammond, of Vermont, three car-loads of Spanish Merino Sheep, (335 head, Ewes and Bucks) which, with others that I purchased last Fall, (also direct from Vermont) makes my herd of Thoroughbred Spanish Merinos about 650 head.

I am prepared to sell both Bucks and Ewes, of Pure Blooded Spanish Merinos—as good as can be had in the World—so says Mr. Hammond. Parties interested will please give me a call. I am ten miles from Salinas City, Gabilan P. O., Monterey county.

J. D. CARR.

N. B.—I have also Good Graded Bucks for sale, and can dispose of some Good Graded Ewes. J. D. O.

12 Short-Horn Bulls,



fat and sleek, thoroughbred, just from Kentucky, at Saxe's Stables, 35 Ritch Street, between Folsom and Harrison, two blocks from Grand Hotel. Inquire at Saxe's Stables, or Room 32 Rmss House. 3v9-3m

FARMERS' UNION!

SUCCESSOR TO A. PFISTER & CO.,

Cor. Second and Santa Clara Sts., San Jose.

CAPITAL, - - - - - \$100,000.

WM. ERKSON, - - - - - PRESIDENT

H. E. HILLS, - - - - - MANAGER

Directors.—Win. Erkson, L. F. Chipman, Horace Little

J. P. Dudley, David Campbell, James Singleton, Thomas

K. Snel. C. T. Settle, E. A. Braley.

Will do a General Mercantile Business, also receive Deposits, on which such interest will be allowed as may be agreed upon, and make Loans upon approved security.

POISON! POISON!

WAKELEE'S PATENTED

Granulated Squirrel Exterminator.

A NEW AND MOST DESTRUCTIVE POISON FOR THE WORST PEST OF CALIFORNIA.

For years the farmers of the Pacific Coast have been spending money in experimenting to find a safe, cheap and efficient way of ridding their grain fields of their worst enemy, THE SQUIRRELS, which destroy Millions of Dollars' worth of grain every year; and unless a strong and combined effort is made to kill them off, they will become more numerous every year.

Wakelee's Granulated Squirrel Exterminator

Is just the thing the farmers of California have been looking for. It is SURE DEATH. One or two grains of it will kill a Squirrel so quick that if it is five feet from his hole it dies before it gets there. The Poison is put up DRY and in granular form, and easily handled; in one pound tins at \$1 per pound. It goes a great way, as 10 to 15 grains of it are sufficient to place at each hole. Also successfully used for killing Gophers and Rats. It has been thoroughly tested in different parts of the country, and gave universal satisfaction. It is kept and sold by druggists and dealers generally through the country. The following are some of my testimonials, viz:

SANTA CLARA, April 20th, 1874.
H. P. WAKELEE, Esq.,—Dear Sir: I have given your Squirrel Exterminator a fair trial and find it to be an economical and very destructive preparation, and I can safely recommend it to our farmers. Yours,
J. R. ARGUELLO.

SAN LEANDRO, Cal., April 3d, 1874.
H. P. WAKELEE, Esq.,—Dear Sir: I have given your Squirrel Exterminator a fair trial and find it to be an economical and very destructive preparation, and I can safely recommend it to our farmers. Yours,
J. M. ESTUDILLO.

DOUGHERTY STATION, Alameda Co., Cal.
MR. H. P. WAKELEE, San Francisco: I have used your Squirrel Poison and found it to be just what you claim for it. It is sure death. Yours,
C. M. DOUGHERTY.

H. P. WAKELEE, Druggist,
Cor. Montgomery and Bush streets, S. F.

ARMES & DALLAM,

WHOLESALE DEALERS IN

WOOD AND WILLOW WARE

Baskets, Brushes and Twines,
Clothes Wringers,
Doty's Washing Machines,
AND

GENERAL HOUSE FURNISHING GOODS

And Manufacturers of

BROOMS, PAILS, TUBS, WASHBOARDS,
DASH,
CYLINDER,
THERMOMETER,
AND SQUARE BOX

CHURNS,

215 and 217 Sacramento St., San Francisco.

Averill Chemical Paint,

MANUFACTURED BY THE

Cal. Chemical Paint Co.

PURE WHITE, AND ANY SHADE OR COLOR.

This Paint is prepared in liquid form, READY FOR APPLICATION—requiring no thinner or dryer, and will not spoil by standing any length of time.
It is Cheaper, more durable, more Elastic, and produces a more Beautiful Finish than the best of any other Paint.

It will not Fade, Crack, or Peel off, and will last twice as long as any other Paint.
In ordering White, state whether for Outside or Inside use, as we manufacture an Inside White (either Flat or Gloss) for inside use, which will not turn yellow, and produces a finish equal to the finest China Gloss.

Put up in $\frac{1}{4}$, $\frac{1}{2}$, 1, 2 and 5 gallon packages, and in Barrels. Sold by the Gallon.
For further information send for Sample Card and Price List, or apply to the manufactory and office,

Cor. 4th and Townsend streets, S. F.
TYLER BEACH, M. C. JEWELL,
President. Secretary.
3v9-cow-bp-ly

THE ALDEN

Fruit Preserving Company

OF CALIFORNIA.

Is now prepared to sell rights and furnish the necessary machinery for using the "ALDEN PROCESS," acknowledged to be the best method known for preserving Fruits, Vegetables, Meats, etc.

For full particulars call at the company's

Office, 426 Montgomery St., S. F.

G. W. DEITZLER, President.
W. M. WHERRY, Vice President.
FRANK PYLE, Sec'y and Sup't.
BANK OF CALIFORNIA, Treasurer.

11v7-6m

A GOOD BARGAIN.

\$500 will buy a good, pre-emption claim of 160 acres in Monterey County, with a good Dwelling House that cost more than that amount, situated one-half a mile from the Los Angeles Stage Road, and about the same distance from the line of the Southern Pacific Railroad. Apply to

MRS. ROWLANDSON,
On the Premises, San Antonio, Cal.

\$5 to \$20 Per Day at home. Terms free. Ad dress G. SYNNON & Co., Portland, M.

HEALD'S Business College.

No. 24 Post Street, San Francisco.

The largest and best Business College in America. Its teachers are competent and experienced. Its pupils are from the best class of young men in the State. It is under the very best discipline. Its scholarships are good in the THIRTY-SIX Bryant & Stratton Colleges. It employs four of the best penmen in the State. It has the largest rooms, the largest attendance, and the most complete system of business training of any commercial school in the country.

For information, call at the office, 24 Post street, or address, for circulars,

E. P. HEALD,
President Business College, San Francisco



This is a Sure Cure for Screw Worm, Scab and Foot Rot in Sheep. It also kills Ticks, Lice, and all Parasites that infest Sheep.

Prevents scratching and greatly improves the quality of the wool. One gallon of the Dip properly diluted with water will be sufficient to dip one hundred sheep, so that the cost of dipping is a mere trifle, and sheep owners will find that they are amply repaid by the improved health of their flocks.

This Dip is guaranteed to cure when used according to directions, and to be vastly superior to Corrosive Sublimate, Sulphur, Tobacco, and other remedies which have heretofore been used by farmers.

Circulars sent, post paid, upon application, giving full directions for its use, also certificates of prominent sheep growers who have used large quantities of the Dip, and pronounce it the most effective and reliable known Cure and Preventive of Scab and other kindred diseases in Sheep.

nir13-bp



ROWLAND'S ODONTO

Whitens and preserves the teeth, prevents and arrests their decay, strengthens the gums, and gives a pleasing fragrance to the breath. The success of the last seventy-five years has proved its superiority over all other preparations for the teeth. Sold everywhere by all druggists, chemists, and patent medicine dealers. Ask for Rowland's Odonto, of 20, Hatton Garden, London, and avoid all imitations.

PACIFIC POTTERY, SACRAMENTO.

MANUFACTURERS OF

Sewer Pipe, Drain Tile,
PLAIN FLOWER POTS,
FIRE BRICK.

JOHN B. OWENS, Agent,

No. 30 California Street, S. F.



SHEEP WASH.

Sole Agency for California and Nevada
T. W. JACKSON'S,
416 Sacramento Street, San Francisco.

SUPPORT HOME INDUSTRY.

WHEATEN STARCH,

MANUFACTURED BY

J. JOHNSTON.

SAN JOSE, CALIFORNIA.

This starch is made from the best of wheat, and is used by the laundries and hotels, who pronounce it Superior in Strength and Fine Satin Gloss to any imported starch—one pound being equal to one and a half pounds of Eastern starch.

THE CLEETON COOP COMPANY,

Of New Haven, Conn.,

Are now prepared to furnish societies and individuals with

Standard Exhibition Coops

AT REASONABLE RATES.

Correspondence Solicited.

Allen's Planet Jr. Silver Medal

HAND DRILLS AND WHEEL HOES. THREE NEW styles. They "sow like a charm," and hoe better, easier, and six times faster than the hand hoe. S. L. ALLEN & CO., Mfrs. 119 S. 4th St., Phila., Pa. Circulars free.

A LIVE AGENT WANTED in every town.

GIVE YOUR FULL ADDRESS when you communicate on business to this office, especially in returning news-papers. The fact that your name is on our subscription list is of no assistance to us. Without your post office address we should have to look over thousands of names to find yours.

Banking.

Grangers' Bank of California

INCORPORATED APRIL 27th, 1874.

Capital \$5,000,000, in 50,000 Shares
of \$100 each.

Directors:

PRESIDENT—JONATHAN V. WEBSTER..... Alameda
V. PRESIDENT—C. J. CRESSEY..... Stanislaus County
THOMAS MCCONNELL..... Sacramento
JOHN G. HILL..... Ventura County
J. V. WEBSTER..... Alameda County
JUSTICE C. MERRYFIELD..... Solano County
J. LEWELLIN..... Napa County
GILBERT W. COLBY..... Butte County
J. P. CHRISMAN..... Contra Costa County
F. J. WOODWARD..... San Joaquin County
C. S. ABBOTT..... Monterey County
F. A. CRESSEY..... Secretary.

Office, 415 California Street,

SAN FRANCISCO. - - CALIFORNIA

The Bank was opened on the first of August, 1874, for the transaction of ordinary Banking business.

Current Accounts are opened and conducted in the usual way, and interest at the rate of $\frac{1}{4}$ per cent per month is allowed on the minimum monthly balance.

Deposit Receipts in sums of \$50 and upward received, and receipts given for the amounts repayable on 30 days' notice of withdrawal. These deposits bear interest at rates varying with the current rate of discount.

Deposits for Fixed Periods are received, and interest allowed at the following rates: Three months, 6 per cent.; Six months, 7 per cent.; One year, 8 per cent. A share of the patronage of the public is solicited.

Anglo-Californian Bank.

LIMITED.

Successors to J. Seligman & Co.

London Office.....No. 3 Angel Court
San Francisco Office.....No. 412 California street.

Authorized Capital Stock, \$6,000,000,

Subscribed, \$3,000,000. Paid in, \$1,500,000.
Remainder subject to call.

DIRECTORS IN LONDON—Hon. Hugh McCulloch, Reuben D. Sassoon, William F. Scholfield, Isaac Seligman, Julius Sington.

MANAGERS:

F. F. LOW and IGNATZ STEINHART,
SAN FRANCISCO.

The Bank is now prepared to open accounts, receive deposits, make collections, buy and sell Exchange, and issue Letters of Credit available throughout the world, and to loan money on proper securities. 2v21-cowbp

Insurance Companies.

The Pacific Mutual Life Insurance Company of California.

No. 41 Second street, - - - Sacramento

ACCUMULATED FUND, NEARLY

\$1,250,000.00.

\$100,000 Approved Securities, deposited with the California State Department as security for Policy holders everywhere.

LELAND STANFORD.....President
J. H. CARROLL.....Vice-President
JOS. CRACKBON.....Secretary

All Policies issued by this Company, and the proceeds thereof, are exempt from execution by the laws of California. THE ONLY STATE IN THE UNION that provides for this exemption.

Policies issued by this Company are non-forfeitable, and all profits are divided among the insured. Policies may be made payable in Gold or Currency, as the applicant may elect, to pay his premium.

Executive Committee:

LELAND STANFORD, J. H. CARROLL,
ROBT. HAMILTON, JAS. CAROLAN,
SAMUEL LAVENSON,

SCHREIBER & HOWELL,

11-20-cow-bp-3m General Agents, Sacramento.

California Farmers Mutual Fire Insurance Association.

Office, 6 Leidesdorff St., - San Francisco.

Directors:

A. WOLF, A. W. THOMPSON, I. C. STEELE,
I. G. GARDNER, J. C. MERRYFIELD, J. D. BLANCHARD,
G. P. KELLOGG, Treas.

Finance Committee:

I. G. GARDNER, J. C. MERRYFIELD, A. W. THOMPSON

Trustees:

J. M. HAMILTON, Lake Col. I. C. STEELE, San Mateo Co
J. C. MERRYFIELD, Solano Co. A. B. NALLEY, Sonoma Co
G. W. COLBY, - - Butte Co. O. S. ABBOTT, S'ta Barb'a Co
H. B. JOLLEY, - Merced Co. A. W. THOMPSON, Sonoma Co
A. WOLF, San Joaquin Co. E. W. STEELE, S.L. Obispo Co
J. D. BLANCHARD, Pres't. W. H. BAXTER, Sec'y.

This association is organized for the purpose of affording the farmers of this State the means of safely insuring against loss by fire, at actual cost of insurance, without being connected with city risks. a822-tf

Geo. W. Chapin, Real Estate Agent, 434 Montgomery St., San Francisco, buys and sells Ranches in all parts of the State. City Real Estate exchanged for country Property. MONEY LOANED. Post Office Box 1120

Railroads.

Chicago and Northwestern Railway.

Miles in Operation:

Illinois Division.....	486.5
Iowa ".....	432.8
Wisconsin ".....	685.4
Michigan ".....	168.7
Minnesota ".....	291.8
Dakota ".....	38.5
Total Miles.....	2,003.7

IN CONNECTION WITH THE

Central and Union Pacific Railroads,

—THIS IS THE—

PIONEER LINE

Between the Pacific Coast and the

EAST,

And was the first to connect with the great Pacific roads, and form the

OVERLAND ROUTE.

THIS LINE IS THE

Shortest Rail Line

—BETWEEN—

OMAHA and CHICAGO.

The track is of the

BEST STEEL RAIL,

And is well ballasted, and as free from dust as a road can be made; the bridges are strong and durable, and all the appointments are first-class in every respect.

The trains that run over this road are made up of elegant

New Pullman Palace Drawing Room and Sleeping Coaches,

Built Expressly for this Line,

Luxurious, well lighted and well ventilated Day Coaches, and pleasant lounging and smoking cars; all built by this company in their own shops. The cars are all equipped with the

Miller Safety Platform,

—AND—

PATENT BUFFERS AND COUPLINGS,

WESTINGHOUSE SAFETY AIR BRAKES,

And every other appliance that has been devised for the safety of passenger trains. All trains are run by telegraph, and are so regularly on time that one can safely set his watch by their arrivals or departures.

IN A WORD, THIS

Great California Line

Has the

BEST AND SMOOTHEST TRACK,

AND THE MOST

Elegant and Comfortable Equipment

Of any road in the West, and has no competitor in the country. It is eminently the favorite route with Californians traveling East, and is acknowledged by the traveling public to be the popular line for

Chicago, New York and all Eastern Cities.

Through tickets by this favorite route can be procured at all offices of the CENTRAL PACIFIC RAILROAD, and at the office of the

CHICAGO AND NORTHWESTERN RAILWAY,

208 Montgomery street.

H. P. STANWOOD, Gen. Ag't for Calif'na.

M. HUGHITT, W. H. STENNETT,
General Sup't. Gen. Passenger Ag't,

CHICAGO.

CHICAGO.

10v8-1am-ly

PATENTS & INVENTIONS.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

[FROM OFFICIAL REPORTS FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.]

By Special Dispatch, Dated Washington D. C., March 23, 1875.

FOR WEEK ENDING MARCH 9, 1875.

BILL FILE.—F. B. Alderson, San Jose, Cal.
BUTTON-HOLE CASING.—Virginia V. Balmforth, Oakland, Cal.

ROAD SCRAPER.—Abijah McCall, of Saratoga and James T. Watkins and Jasper M. Scott, Santa Clara, Cal.

NON-FREEZING HYDRANT FOR FIREPLUGS ETC.—Huston I. Chapman, Portland, Oregon.

GRAIN AND STRAW LIFTER.—Donald Crane, Knight's Landing, Cal.

WATER ELEVATOR OR CHAIN PUMP.—Orson A. Davis, Washington, Cal.

REVERSIBLE PINION FOR WATCHES.—J. Gordon, San Francisco, Cal.

FRUIT DRYER.—Levi A. Gould, Santa Clara, Cal.

ICE-MAKING APPARATUS.—William Hood, San Francisco, Cal.

ORE FEEDER.—James Tillock, Sonoma, Cal.

EARTH AUGER.—Elisha Whitney, Marysville, Cal.

STUD FASTENING.—Sallé Zacharias, S. F. Cal.

METALLURGIC FURNACE.—John F. ix, S. F., Cal.

CLOTHES SPRINKLER.—William Olson, Sacramento, Cal.

TRADE MARK

For axes.—Richard Patrick & Co., S. F. Cal.

The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue.

NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & CO., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with perfect security and in the shortest possible time.

Agricultural Items.

THE rain showers which visited San Francisco on Monday the 22d, though slight, seem to have been quite general in the central and northern part of the State. The following brief weather items of that day will prove of interest: Emigrant Gap—It is raining a little; thermometer, 44; Blue Cañon—Calm and raining; thermometer, 42; Rocklin—Cloudy and windy; Truckee—Cloudy and snowing the least bit; it is more rain than snow; strong wind from southeast, very cold; Colfax—Cloudy, wind west; Summit—Cloudy and calm; thermometer, 28; barometer, 23; it has quit snowing; Marysville—Cloudy; has been sprinkling this morning; wind south; Chico—Cloudy; south wind; no rain; cold; Redding—Raining; Cisco—Weather drizzling; wind southwest; thermometer, 40; Sacramento—Cloudy; strong south wind; Shasta—It commenced to rain here about eight o'clock this evening; wind south; there are prospects of a glorious rain; Tehama—There are good prospects for rain soon; it is very cloudy; wind southeast; Dixon—There was a slight sprinkle of rain this morning; weather cloudy and cold; wind south.

THE wheat crop of San Luis Obispo county is not looking so well as was anticipated, but a two-thirds crop can safely be depended on. The number of acres of grain sown this year is about thirty per cent. over that of any previous season; so the number of bushels produced will in all probability, aggregate the same as last year.

A REPRESENTATIVE of a San Francisco concern purchased \$25,000 worth of hogs in Fresno and Tulare counties during the month of February.

THE Placer Argus is of opinion that if the wheat planted yield a fair average the crop will be at least a third larger than that of any previous year.

A GRAND horse and cattle show is to be held at Petaluma April 3d, which will probably prove the grandest exhibition of the kind ever held in Sonoma county.

HOG.—Mr. Wason, of Woodland killed a hog the other day that weighed when dressed 740 pounds. His hog-ship was only 23 months old.

EXCEPT in a limited radius from San Diego, says the Herald of the 20th, grass for stock is abundant, and crops are looking finely.

THE Grass Valley Union of the 23d reports "a nice set of showers" the day previous, laying the dust and freshening the grass.

THE summer fallowed and winter sown grain in the San Joaquin is said to be in a flourishing condition.

FARMERS in Sonoma county are much excited on the subject of potatoes, and a large area will be planted this season.

A flour mill is to be built at Gridley, Butte county, by a joint stock company; \$20,000 has been subscribed.

GRASS in Kern county is said to be by no means so abundant as last year.

THE San Diego Herald of March 20th reports rain all along the Cuyamac foothills.

THE culture of coffee will be tried at Santa Clara this season.

THREE thousand acres in San Benito county are planted in flax.

A CARD.

MEMBER, EDITORS:—An article appeared in your issue of August 8th, on the subject of fruit drying; in which an old, unpractical and abandoned device is again brought into notice, and inferences drawn therefrom calculated to mislead the public, and so do me great injury; and I desire to reply thereto and state the facts in a few words.

It is well known to all persons engaged in this business in the Eastern States, that controversies have been pending between the Alden company and myself for some time, involving the legal right to construct and use fruit-dryers containing moving platforms and continuous operation in combination with an increasing or decreasing heat and dryness—the platform moving either with or against the current of heated air; but the merits of the case are not so generally understood, and parties misinformed as to the facts, are liable to lay stress upon minor or even irrelevant matters, and overlook the legal points upon which the case rests, and upon which mainly it will finally be decided by the courts.

And herein lies the error of the article referred to, for after setting forth the claims of my father's patent of 1861, the writer says: "It will be seen that Smith's fourth claim covers a drying chamber, in which the heated air passes in at one end and out at the other," but he omits to add when such air passes through and around the substance to be dried so as gradually to reduce its temperature and dryness, and yet this is a most prominent feature of this invention, and one which is especially dwelt upon in the specification; and herein lies the essential difference between the Rochester device figured in your cut or Chas. Alden's first patent, of March 15th, 1870, and my patent. Add these words and the whole argument falls, for it is impossible to construct a machine according to that drawing, or according to Alden's original patent, for that matter, in which the articles will be subjected to increasing or decreasing heat and dryness.

I could extend these remarks and show conclusively that there is no practical similarity between the two devices, but there is no occasion for so doing. If any one wishes to build a fruit-dryer according to this Rochester plan, he may use it to his heart's content, for all I care; but let him be sure he follows the drawing, and does not, as the Alden company are doing, so alter and amend the plan as to embrace devices covered by my patents.

The writer of your article does not seem to be aware that Chas. Alden's first patent was dated March 15th, 1870, No. 100,835 (and not December 5th, 1871, No. 121,669), and described a machine altogether different from the one he is using. That in a reissue of that patent he claimed the very process of drying by increasing heat and dryness which my father's patent covers. That in all the earlier editions of their pamphlets, and in numberless newspaper articles they lauded this process to the skies. That it was only after threat of suit they discovered that a reverse process was an improvement; or, that pending a suit in the Circuit Court, of New York, the Alden Company were compelled, by weight of evidence, to acknowledge the validity of my patents, and pay me damages for infringement. He makes no mention of my patent, 107,417, September 30th, 1870, reissue 4,792, for a VERTICAL EVAPORATOR, one claim of which reads as follows: "The arrangement of a series of movable and detachable platform forms or trays receiving a rising or falling motion in a chamber or tower supplied with a current or currents of heated air, and constructed and arranged to fit the chamber closely (and yet allow free motion), so that the heated air which is introduced at the lower end of the chamber will be caused to pass through all of the trays in succession before escaping from the chamber."

This claim accurately describes the construction, and absolutely covers the principle of the so-called "Alden" evaporator. It is the first patent on record, and the Alden Company, of New York, have already acknowledged its priority.

These points to be specially noted are these: The hot air is introduced below, and, rising, passes through the meshes of the trays before escaping from the top. Therefore, if the trays have a falling motion they will move against the current of air and effect an increasing heat and dryness. If on the contrary they have a rising motion, they move with the current of air and are subjected to a decreasing heat and increasing moisture—i. e., the, at present, so-called "Alden Process." This patent is dated September 30th, 1870, and is the first on record combining the moving platform of the same area as the chamber with the current passing through the trays. Alden's first patent he prefers to keep in the background, for he does not use it now. The one he shows is dated December 5th, 1871. This is not the time or place to show the means by which that patent was obtained, nor its worthlessness; that will be done before the courts in California as well as in New York.

Thus my controversy with the Alden Company does not rest solely upon the patent of 1861, as you suppose. I do not now use my father's patent, although I do use his process, by preference, not from necessity. I have made many valuable improvements in mechanisms for fruit-drying; and I own thirteen separate patents on this subject. One of them dated August 17th, 1869, secures to me the sole right to dry Irish and sweet potatoes.

You remark that "Alden's apparatus is almost identical with that represented in the cut"; but I have in my possession a certified copy of a foreign invention which is virtually the fac simile of Alden's patent. So close is the resemblance that either specification will answer for either drawing. I intend to publish this patent and Alden's, No. 160,835, side by side. The public will then be able to judge for themselves. If any one desires to demolish Alden's patent, there is no need of hunting up obsolete and abandoned Rochester experiments, which no patent court would consider as

of any weight. I have better ammunition than that. I cannot, in the limited space which I can ask you to allow me, describe in detail the facts involved in this case. The subject of fruit drying is largely occupying the public mind in California, and large sums are being invested in machinery and patent rights.

It is only just that the public should know that these patents and licenses will be contested in the courts. I take it for granted that parties who propose entering upon this industry, as well as those who are already engaged in it, will be interested to know something about the legality of their business. To all such I will furnish documentary evidence if desired.

My charges against the Alden company are,

First—That they have illegally obtained a patent for an evaporator, which is the same as a previously patented foreign invention, and therefore not patentable in this country.

Second—That they do not build their machines according to the patent which they have illegally obtained, but that they have so altered and changed its construction and operation, as to adopt and use special devices which are covered by patents belonging to me, and without which their machines is inoperative.

Third—That they have, without truth or legal right, represented themselves as the original inventors of this amended machine, and the device of raising the platforms and subjecting the fruit to a decreasing temperature and increasing moisture, whereas, as they well know, both are covered by my patent, 107,417, reissue 4,792.

Fourth—That without pretence to legal authority, but in wilful and open defiance of my patent of August 17th, 1869, they have dried Irish and sweet potatoes and encouraged others to do so.

For these and all other infringements of my rights, I shall hold them and their assignees responsible in the courts.

MARSHALL P. SMITH.

Baltimore, Maryland.

WOODWARD'S GARDENS embraces an Aquarian, Museum, Art Gallery, Conservatories, Tropical Houses, Managerie, Seal Ponds and Skating Rink.

FARM HANDS.

The Grangers' Scandinavian American Employment Office

Has been removed from 6 Liedsdorff to 608 Clay street, and Consolidated with the Pacific Coast Employment Office. This office is in constant communication with Grange Headquarters, and is the only one in the city conducted by members of the Order. Our facilities for furnishing MALE and FEMALE help of all kinds are unexcelled by any office in the city. Great care taken to select reliable help. Chinese Orders for Servants, in door and out, promptly filled. In ordering help, be particular in describing work, wages, fare, etc.

PHILIPS & FLIGGLE.

SAN FRANCISCO.

12p

SEEDS.

PLANTS.

OF EVERY VARIETY.

Fresh and reliable, such as experience and care only can select.

GRASS AND CLOVER SEEDS, KENTUCKY BLUE GRASS, HUNGARIAN, ORCHARD, ITALIAN RYE, RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL, CHOICE CALIFORNIA ALFALFA, WHITE CLOVER, RED CLOVER, Etc.

Also, RAMIE, JUTE AND TOBACCO SEEDS; together with a fine and complete collection of TREE SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGANTEA, PINUS INSIGNIS, Etc.

For Sale, wholesale or retail, by

B. F. WELLINGTON,

(Successor to E. E. Moore).

425 Washington St., San Francisco.

22v7-ly

Thoroughbred Spanish Merinos FOR SALE.

60 ons and two-year old Thoroughbred Spanish Merino Rams, California bred, from Ewes imported from Vermont, and sired by Severanos & Peet's Celebrated Ram "Tremont," and by their Ram "Green Mountain," which took the first premiums at the Bay District and State Fairs. Last shearing—35½ lbs—years' growth.

Also, about 100 Ewes and Lambs, all of "Green Mountain" Stock, bred this year.

B. F. WATKINS,

Santa Clara, Cal.

LOCKE & MONTAGUE,

IMPORTERS OF

Stoves, Ranges,

Tin Plate, Sheet Iron, Iron Pipe,

House Furnishing Hardware,

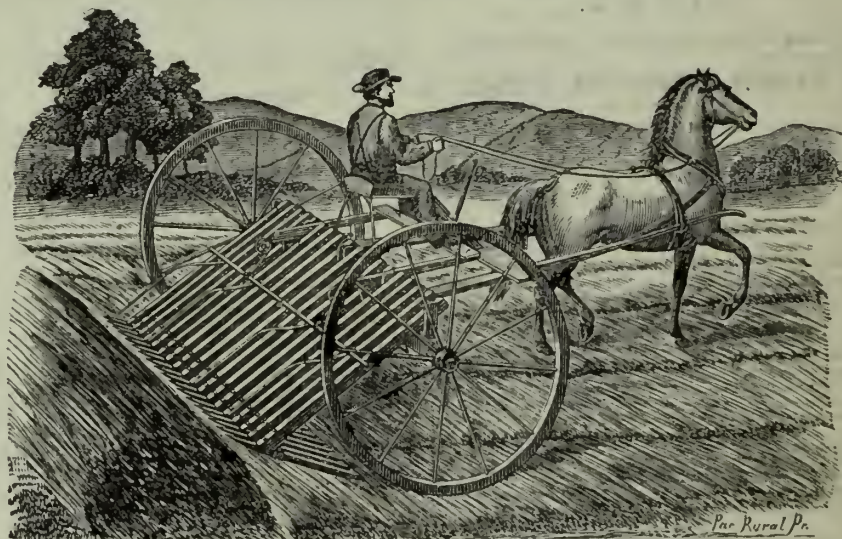
Plain Japanned,

Planished and Stamped

TIN WARE,

112 and 114 Battery Street,

Patent Extension Toothed Hay Rake.



Made of the Best Material, Runs Light and is Easily Operated.

Being so regulated by draft of horse as to nearly balance the rake, the operator steadying the lever and holding the teeth to the ground as required.

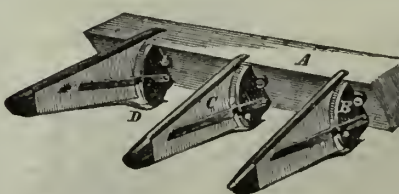
The Hay is Clean, free from Dirt and Dust.

And is not wadded or rolled, as from the Wire Toothed Rake.

The Teeth Rise and Fall Over Uneven Ground.

Gathering hay where other Rakes leave it behind, and are also double pointed, can be used any length, and turned point to point when dulled, or a tooth replaced without delay. Also manufacture Wire Rakes of the same pattern.

BONNEY'S PATENT ADJUSTABLE GRAIN LIFTER, FOR HEADERS.



PRICE, \$40.

Manufactured by O. BONNEY.

No. 221 Mission Street,

SAN FRANCISCO.

13-v9-lam

S. F. MARKET REPORT.

Weekly Market Review.

DOMESTIC PRODUCE.

SAN FRANCISCO, March 24, 1875.

The fate of the growing crops is now the one subject of interest throughout the State. From the borders of Oregon to that of Arizona, the farmer in his home, the merchant in his counting-room, the mechanic at his bench, and the storekeeper behind his counter discuss it, for on it depends the welfare of the coming year. At present the crops are in a transition state; rain in another week, a good heavy, soaking rain, would put them out of danger, while the absence of it or the occurrence of a mere drizzle would in many places work sad havoc among the late sown grain. As usual the most contradictory statements are afloat as to the present and possible future effect of the dry weather; but we think that we risk not in stating that without rain the yield will be one-third less than it otherwise would. In many places the volunteer crop is already hopelessly gone. But even with such a lessened yield California would have twelve millions of cents to export during the coming harvest year. Individuals, however, will suffer, and many will be ruined or hopelessly involved should the much desired rain not come in sufficient quantity. Realizing this, one instinctively asks himself when the farmers will learn by irrigation to render a failure of crops from drought impossible? Ought they not to have learned wisdom by experience of the past? We boast of our progress, but in this point we are not far behind the half-naked, semi-civilized peoples of Egypt and India? There is no part of the State where the farmers through untold action could not accomplish much in this direction—dam up the course of a river or stream, and dig ditches to distribute it through the fields, and do this at comparatively small expense. Nine million cents of wheat, worth at a low estimate, nine millions of dollars, may be lost this season; but this amount in the hands of earnest practical men would work wonders. There is, however, little use moralizing now, and we must take the situation as we find it. But there is a silver lining to every cloud, and a direct result of the dry weather has been a continued advance in the price of wheat and a continued decline in freights. This favorable aspect of things, however, can but partly compensate for the evil of a two-thirds crop.

Beans—Receipts since our last, 2176 cts. Total since March 1st, 8156 cts. There has been no change of note in the market since our last.

Broomcorn—We quote Choice 8@10c and Common 4@7c, with little movement of any kind.

Buckwheat—The market is bare, but we give as a nominal quotation \$3.25.

Beeswax—Is quotable at 25@27c, the former being the wholesale rate.

Corn—Receipts since our last, 5301 cts. Total since March 1st, 9155 cts. There is very little movement in the market. We quote: White, \$1.55@1.57; Yellow, \$1.45@1.47. Sales of 200 sks large choice Yellow at \$1.40.

Cornmeal—Table remains firm at 2½@3c. Feed is quotable at \$31@33.

Flour—Receipts since our last, 100,008 qr sks. Total since March 1st, 153,590 qr sks, including 78,000 qr sks per Dharwar from Vallejo, and 5,360 do per Orliflamme from Portland. Total since Jan. 1st, 525,101 qr sks.

The market remains firm at last quoted prices. Sales for export by the National Mills of 6000 qr sks of Superfine and 500 bbls in bbls for China by the next steamer. Sales by the Golden Gate Mills of 3000 bbls for Central America, are some by the China steamer. City of the Golden Age, 3000 qr sks Superfine. The sales of Tokio for China will take upwards of 10,000 bbls. Exports for the week 24095 bbls. Including 3900 hf-sks per Dharwar.

Fresh Meat—Hogs, good quality, are scarce at 7c gross; the market is overstocked with Sheep, and the price has declined to 4½@5c. The market is moderately but well supplied with Beef.

Fruits—Receipts since our last, 1116 bxs of California Oranges, 118 bxs Apples 69 sks of Fruits (not specified), 510 bunches of Bananas, by the Macgregor, and 66 bxs Lemons, and 72 do Oranges, from Mexico, per Newbern.

Apples are getting scarce and dearer. The Oregon in the market are frost bitten and inferior. Pears are nearly out of market, the only ones available being from Oregon. The Tahiti Oranges that arrived the week previously, were in very fine condition, and sell readily at \$20@25. We have some Mexican, quotable at \$40. The market is full of Los Angeles. Lemons are rather scarce.

Game—Is now only represented by Hares, Rabbits and Prairie Chickens. Hares are quotable at \$2.50@3. Rabbits at \$1.25@1.50, Prairie Chickens, when they can be had, bring \$4.

Hay—Receipts since our last, 664 tons. Total since March 1st, 2265 tons.

The market is firm at \$10@16. Sales of 15 tons Tame Oat at \$13, and 30 tons choice Hay at \$16.

Hides—Receipts since our last, 2836. Dry are quotable at 18½@19c, and Wet Salted at 8½@9c. Sales of 1500 Wet Salted at current rates.

Honey—There is very little change to note, and beyond a jobbing and retail trade, nothing is being done.

Hops—Receipts since our last, 3½ bbls. Total since March 1st, 21 bbls.

The market is quotable at 30c@35c, with few or no transactions.

Nuts—Receipts since our last, 11 bgs of Peanuts. There has been no change except in Cocoanuts, which are dearer, \$60@70 per invoice, and \$80@100 jobbing.

Pearl Barley—Is quotable at 5½c@6½c for shipping.

Poultry—Is dearer. We quote Live Turkey 20@22c. There are no dressed in the market. We quote Sprig Chicken, 6.50@7.50; Hens, \$8@9; Roosters, \$8.50@9.50; Broilers, \$7@8; Ducks, \$9@10; Geese, \$15@18.

Rye—Receipts since our last, 118 cts. Total since March 1st, 1664 cts. The market is weaker at \$1.17@1.20. Sales 60 sks choice at \$1.20.

Straw—Receipts since our last, 70 tons. Total since March 1st, 139 tons.

The market is weaker, quotable at 60@67c.

Seeds—Receipts since our last, 27 sks Alfalfa.

There is no change except in Timothy, which is now selling as low as 60@7c.

Tallow—Receipts since our last, 41,300 lbs.

Market weak. Sales, 20 tons private.

Vegetable—There is a greater variety in the market, and prices have tamed down a little.

Wheat—Receipts since our last, 141,355 cts. Total since March 1st, 113,745 cts. The following table shows receipts since Jan. 1st:

Date	Average	Club
January	842,241	
February	823,189	
March to date	713,675	
Total	2,379,105	

The Liverpool market has advanced during the week, being quotable at \$2.18@2.28 for California Average, that is, 1c higher than at date of our last issue. California Club is quotable at \$2.32@2.43, also an advance. The following table shows the changes in the Liverpool market since March 1st:

Date	Average	Club
March 1	11@9	3@9
16	11@9	4@9
23	9@9	7@9

DOMESTIC PRODUCE.

[WHOLESALE.]

WEDNESDAY M., March 24, 1875.

BEANS.	Pigeon 1 Pt. 1.80 @ 1.90	Salinas 1 Pt. 1.80 @ 1.85
Bayo..... 2½ @ 3	Sweet, per owl..... 4	Tomatoes..... 1.70 @ 1.8
Butter..... 3½ @ 4	Broilers, small..... 4.50 @ 5.00	Do large..... 7.00 @ 8.00
Pea..... 3½ @ 4	Doves, per dozen..... 10 @ 10	Geese, per pair..... 2.50 @ 3.00
Pink..... 3½ @ 4	Hare, per doz..... 2.50 @ 3.00	Hens, per dz..... 8.00 @ 9.00
Sm'l wh. per lb..... 3 @ 3	Live Turkeys, hens..... 20 @ 22	Do dressed..... 20 @ 22
BROOM CORN.	Do small..... 20 @ 22	Mallard Ducks..... 20 @ 22
Cal. 1874..... 12½ @ 15	Do small..... 20 @ 22	Prairie Chickens..... 20 @ 22
DAIRY PRODUCE.	Quail, per doz..... 10 @ 10	Rabbits..... 15 @ 20
BUTTER.	Do same doz..... 10 @ 12½	Roosters, young..... 8.50 @ 9.50
Cal. choice..... 21½ @ 22½	Large..... 8.50 @ 9.50	Swiss Eng., doz..... 10 @ 10
Fin..... 20½ @ 22½	Do medium..... 13½ @ 14	Venison, doz..... 10 @ 10
Inferior..... 18 @ 20	Do heavy..... 9 @ 9½	Wild Geese, gray..... 2 @ 2
Chesse, Cal..... 14 @ 17	Cal. Bacon, Light..... 16 @ 16½	Do Medium..... 13½ @ 14
Eastern..... 15 @ 20	Do Heavy..... 9 @ 9½	Cal. Smoked Beef..... 9 @ 9½
EGGS.	Eastern do..... 9 @ 10	East'n Should'rs..... 9 @ 10
Cal. fresh..... 26 @ 27½	Do..... 13½ @ 14	Hams, Cal..... 12½ @ 13
Ducks..... 26 @ 27½	Do..... 13½ @ 14	Do Whittakers..... 10 @ 11½
Eastern..... 26 @ 27½	Do..... 13½ @ 14	Do Duffield, ch..... 10 @ 11½
Oregon..... 26 @ 27½	Do..... 13½ @ 14	Do Armur..... 10 @ 11½
FEED.	Do..... 13½ @ 14	Do Boyd's..... 10 @ 11½
Brass, per ton..... 15 @ 15	Do..... 13½ @ 14	Do Stewart's..... 10 @ 11½
Barley, 150 @ 150	Do..... 13½ @ 14	Do..... 13½ @ 14
Hay..... 10 @ 10	Do..... 13½ @ 14	Do..... 13½ @ 14
Middlings..... 2 @ 2	Do..... 13½ @ 14	Do..... 13½ @ 14
Oil cake meal..... 60 @ 60	Do..... 13½ @ 14	Do..... 13½ @ 14
Straw, bales..... 60 @ 60	Do..... 13½ @ 14	Do..... 13½ @ 14
FLOUR.	Do..... 13½ @ 14	Do..... 13½ @ 14
Extra..... 4.75 @ 5.37½	Do..... 13½ @ 14	Do..... 13½ @ 14
Superfine..... 4.00 @ 4.75	Do..... 13½ @ 14	Do..... 13½ @ 14
FRESH MEAT.	Do..... 13½ @ 14	Do..... 13½ @ 14
Beef 1st quality..... 7 @ 8½	Do..... 13½ @ 14	Do..... 13½ @ 14
Second do..... 6 @ 7	Do..... 13½ @ 14	Do..... 13½ @ 14
Third do..... 5 @ 6	Do..... 13½ @ 14	Do..... 13½ @ 14
Lamb..... 9 @ 10	Do..... 13½ @ 14	Do..... 13½ @ 14
Mutton..... 6 @ 6½	Do..... 13½ @ 14	Do..... 13½ @ 14
Pork, undressed..... 6½ @ 6½	Do..... 13½ @ 14	Do..... 13½ @ 14
Do dressed..... 8½ @ 9	Do..... 13½ @ 14	Do..... 13½ @ 14
Veal..... 8½ @ 9	Do..... 13½ @ 14	Do..... 13½ @ 14
GRAIN ETC.	Do..... 13½ @ 14	Do..... 13½ @ 14
Barley, coast..... 1.42½ @ 1.45	Do..... 13½ @ 14	Do..... 13½ @ 14
Do brewing..... 1.42½ @ 1.45	Do..... 13½ @ 14	Do..... 13½ @ 14
Buckwheat..... 3.25 @ 3.25	Do..... 13½ @ 14	Do..... 13½ @ 14
Corn, white..... 1.45 @ 1.47½	Do..... 13½ @ 14	Do..... 13½ @ 14
Do Yellow..... 1.45 @ 1.47½	Do..... 13½ @ 14	Do..... 13½ @ 14
Oats, ch. 1c..... 1.45 @ 1.45	Do..... 13½ @ 14	Do..... 13½ @ 14
Do common..... 1.55 @ 1.55	Do..... 13½ @ 14	Do..... 13½ @ 14
Rye..... 1.20 @ 1.17½	Do..... 13½ @ 14	Do..... 13½ @ 14
Wheat, coast..... 1.40 @ 1.45	Do..... 13½ @ 14	Do..... 13½ @ 14
Do shipping..... 1.57½ @ 1.65	Do..... 13½ @ 14	Do..... 13½ @ 14
Do milling..... 1.55 @ 1.55	Do..... 13½ @ 14	Do..... 13½ @ 14
HOP.	Do..... 13½ @ 14	Do..... 13½ @ 14
California, 1874..... 30 @ 35	Do..... 13½ @ 14	Do..... 13½ @ 14
East'n. 74 ch. 4c..... 42½ @ 42½	Do..... 13½ @ 14	Do..... 13½ @ 14
MISCELLANEOUS.	Do..... 13½ @ 14	Do..... 13½ @ 14
Beeswax, per lb..... 25 @ 27½	Do..... 13½ @ 14	Do..... 13½ @ 14
Honey in comb..... 18 @ 25	Do..... 13½ @ 14	Do..... 13½ @ 14
Do strained..... 8 @ 10	Do..... 13½ @ 14	Do..... 13½ @ 14
Onions..... 1.20 @ 1.37½	Do..... 13½ @ 14	Do..... 13½ @ 14
Puls..... 8½ @ 10	Do..... 13½ @ 14	Do..... 13½ @ 14
NUTS—JOBBER.	Do..... 13½ @ 14	Do..... 13½ @ 14
Almonds, 1st ch. 1..... 8 @ 10	Do..... 13½ @ 14	Do..... 13½ @ 14
Do, soft..... 20 @ 22½	Do..... 13½ @ 14	Do..... 13½ @ 14
Brazil do..... 14 @ 15	Do..... 13½ @ 14	Do..... 13½ @ 14
Cal. Walnuts..... 10 @ 12½	Do..... 13½ @ 14	Do..... 13½ @ 14
C. Peanuts, per lb..... 8 @ 9	Do..... 13½ @ 14	Do..... 13½ @ 14
Chile Walnuts..... 10 @ 12½	Do..... 13½ @ 14	Do..... 13½ @ 14
Cocoanuts, 1000 @ 1000	Do..... 13½ @ 14	Do..... 13½ @ 14
Filberts..... 17 @ 18	Do..... 13½ @ 14	Do..... 13½ @ 14
Peanuts..... 15 @ 17	Do..... 13½ @ 14	Do..... 13½ @ 14
POTATOES.	Do..... 13½ @ 14	Do..... 13½ @ 14
Bodega..... 1.70 @ 1.75	Do..... 13½ @ 14	Do..... 13½ @ 14
Cutted Cove..... 1.85 @ 1.85	Do..... 13½ @ 14	Do..... 13½ @ 14
H. M. Bay..... 1.75 @ 1.80	Do..... 13½ @ 14	Do..... 13½ @ 14
Humboldt..... 1.75 @ 1.80	Do..... 13½ @ 14	Do..... 13½ @ 14
Mission..... 1.75 @ 1.80	Do..... 13½ @ 14	Do..... 13½ @ 14

FRUITS AND VEGETABLES.

[WHOLESALE.]

WEDNESDAY M., March 24, 1875.

FRUIT MARKET.	do St. Peter..... 10 @ 10	do Apples..... 5½ @ 7
Tahiti, Or. M..... 10 @ 10	do Pears..... 8 @ 10	do Peaches..... 9 @ 10
Lorita, do..... 10 @ 10	do Apricots..... 12½ @ 15	do Plums..... 8 @ 8
Cal. do..... 15 @ 20 @ 30	do Pitted, do..... 15 @ 16	do do Extra..... 15 @ 16
Cal. do..... 15 @ 20 @ 30	do Raisins..... 12½ @ 15	do Black Figs..... 5 @ 6
Cal. Lemons..... 15 @ 20 @ 30	do White..... 8 @ 12½	do Prunes..... 8 @ 13
Australia do..... 10 @ 10	do do German..... 14 @ 15	do Citron..... 32½ @ 35
do Sicily bxs..... 10 @ 10	do Zante Currants..... 8 @ 9	do Dates..... 10 @ 10
Bananas, bunch 2..... 2.50 @ 3.00	VEGETABLES.	Asparagus..... 50 @ 75
Cocoanuts, 1000 @ 1000	Beets..... 20 @ 25	Cabbage..... 100 @ 100
Pineapples, doz..... 75 @ 100	Carrots..... 6 @ 10	Cauliflower..... 1.25 @ 1.50
Apples, doz..... 75 @ 100	Celery, doz..... 40 @ 50	Garlic, doz..... 11 @ 12
Blackberries..... 10 @ 10	Green Peas..... 10 @ 10	Green Corn..... 10 @ 10
do wild..... 10 @ 10	Green Corn..... 10 @ 10	Green Corn..... 10 @ 10
Huckleberries..... 10 @ 10	Green Corn..... 10 @ 10	Green Corn..... 10 @ 10
Strawberries..... 10 @ 10	Green Corn..... 10 @ 10	Green Corn..... 10 @ 10
Gooseberries..... 10 @ 10	Green Corn..... 10 @ 10	Green Corn..... 10 @ 10
Raspberries..... 10 @ 10	Green Corn..... 10 @ 10	Green Corn..... 10 @ 10
Currauts..... 10 @ 10	Green Corn..... 10 @ 10	Green Corn..... 10 @ 10
do black..... 10 @ 10	Green Corn..... 10 @ 10	Green Corn..... 10 @ 10
Apricots..... 10 @ 10	Green Corn..... 10 @ 10	Green Corn..... 10 @ 10
Plums..... 10 @ 10	Green Corn..... 10 @ 10	Green Corn..... 10 @ 10
Peanuts, bskt..... 10 @ 10	Green Corn..... 10 @ 10	Green Corn..... 10 @ 10
do box..... 10 @ 10	Green Corn..... 10 @ 10	Green Corn..... 10 @ 10
do ext Mount..... 10 @ 10	Green Corn..... 10 @ 10	Green Corn..... 10 @ 10
do ext Mount..... 10 @ 10	Green Corn..... 10 @ 10	Green Corn..... 10 @ 10
Pears, doz..... 10 @ 10	Green Corn..... 10 @ 10	Green Corn..... 10 @ 10
do cooking..... 10 @ 10	Green Corn..... 10 @ 10	Green Corn..... 10 @ 10
Grab Apples..... 10 @ 10	Green Corn..... 10 @ 10	Green Corn..... 10 @ 10
Nectarines..... 10 @ 10	Green Corn..... 10 @ 10	Green Corn..... 10 @ 10
Watermelons..... 10 @ 10	Green Corn..... 10 @ 10	Green Corn..... 10 @ 10
Musk'ns..... 10 @ 10	Green Corn..... 10 @ 10	Green Corn..... 10 @ 10
Pomegranates..... 10 @ 10	Green Corn..... 10 @ 10	Green Corn..... 10 @ 10
Figs..... 10 @ 10	Green Corn..... 10 @ 10	Green Corn..... 10 @ 10
Grapes, blk' Hg..... 10 @ 10	Green Corn..... 10 @ 10	Green Corn..... 10 @ 10
do Muscat..... 10 @ 10	Green Corn..... 10 @ 10	Green Corn..... 10 @ 10
do Malvo'e..... 10 @ 10	Green Corn..... 10 @ 10	Green Corn..... 10 @ 10
do Sweetw'r..... 10 @ 10	Green Corn..... 10 @ 10	Green Corn..... 10 @ 10
do Mission..... 10 @ 10	Green Corn..... 10 @ 10	Green Corn..... 10 @ 10
do Rose of Peru..... 10 @ 10	Green Corn..... 10 @ 10	Green Corn..... 10 @ 10
do Tokay..... 10 @ 10	Green Corn..... 10 @ 10	Green Corn..... 10 @ 10
do Morisco..... 10 @ 10	Green Corn..... 10 @ 10	Green Corn..... 10 @ 10

LEATHER.

[WHOLESALE.]

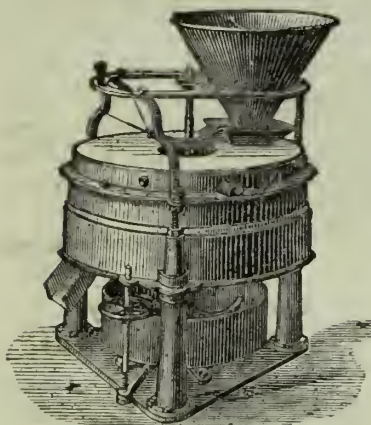
WEDNESDAY M., March 24, 1875.

Santa Cruz Leather, ½ doz.	26 @
Country Leather, ½ doz.	25 @
Stockton Leather, ½ doz.	25 @
Jodot, 8 Kil. per doz.	\$50 00 @ 54
Jodot, 14 to 19 Kil. per doz.	82 00 @ 54
Jodot, 14 to 19 Kil. per doz.	82 00 @ 54
Jodot, second choice, 11 to 16 Kil. per doz.	57 00 @ 67
Jornellian, 12 to 16 Co.	57 00 @ 67
Cornellian Females, 12 to 13.	63 00 @ 67
Cornellian Females, 14 to 16 Kil.	71 00 @ 76
Simon Ulmo Females, 12 to 13 Kil.	60 00 @ 67
Simon Ulmo Females, 14 to 15 Kil.	70 00 @ 72
Simon Ulmo Females, 16 to 17 Kil.	73 00 @ 75
Simon, 18 Kil. per doz.	61 00 @ 63
Simon, 20 Kil. per doz.	65 00 @ 67
Simon, 24 Kil. per doz.	72 00 @ 74
Robert Calif, 7 and 9 Kil.	35 00 @ 40
French Kips, ½ doz.	1 00 @
California Kip, ½ doz.	40 00 @ 47
French Sheep, all colors, ½ doz.	8 00 @ 15
Eastern Calf for Backs, ½ doz.	1 00 @ 1
Sheep Roans for Topping, all colors, ½ doz.	9 00 @ 13
Sheep Roans for Linings, ½ doz.	5 00 @ 10
Calf and Sheep Linings.	1 75 @ 4
Best Jodot Calf Boot Legs, pair.	5 00 @ 5
Good French Calf Boot Legs, pair.	4 00 @ 4
French Calf Boot Legs, pair.	4 00 @ 4
Harness Leather, ½ doz.	30 @ 37
Fair Bridle Leather, ½ doz.	45 00 @ 72
Skirting Leather, ½ doz.	33 00 @ 50
Well Leather, ½ doz.	30 00 @ 50
Buff Leather, ½ doz.	17 @
Wax Side Leather, 2 doz.	24 @

Agricultural Articles.

J. WAGNER.

MANUFACTURER OF

FRENCH BURR MILL STONES AND
PORTABLE MILLS.

General Mill Furnishing. Portable Mills specially adapted for Farmers' use. 113 and 115 Mission street, San Francisco. 13v7-3m-2am

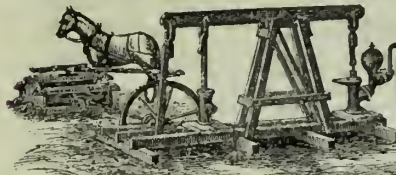
VINE AND FRUIT GROWERS,

TO RAISE LARGE CROPS

YOU MUST IRRIGATE.

To irrigate successfully, you must have the power that does not give out when the wind fails.

Laufkotter Bros. & Churchman's Horse-Power,



[PATENTED FEBRUARY 13th, 1892]
Never fails to supply more water than four or five Windmills, even supposing you had all the wind you want. It is also suitable for running light machinery, such as Barley Cracks, Corn Shellers, Fanning Mills, Grain Separators, or for Sawing Wood. They are never failing, cannot get out of order, easily worked, substantial, and always give satisfaction wherever they have been used. One horse can easily work two 6-inch pumps, with a continuous flow of water. Force Pumps, from 3,000 to 10,000 gallons per hour. WINDMILLS of all kinds manufactured to order. Wells Bored, Windmills and Horse-Powers set in any part of the State, and repairing of all kinds done. Manufactured and for sale by

LAUFKOTTER BROS.,

v7-2m-3m

Cor. J and 10th Sts., Sacramento.

C. CREGO.

S. C. BOWLEY.

CREGO & BOWLEY,

Importers and Manufacturers

-OF-

CARRIAGES and WAGONS,

No. 9 Merchant's Exchange,

CALIFORNIA STREET.....SAN FRANCISCO

Keep constantly on hand top and open Buggies, top and open Rockaways, Jump-seat Buggies, Track and Road Bikes, Skeleton Wagons, Basket Phaetons of the very latest styles and finest workmanship.

We would call particular attention to our fine stock of light Road and Trotting Wagons, made to order by the following celebrated makers:

Charles S. Coffrey, Camden, New Jersey;
Helfield & Jackson, Rahway, New Jersey;
Gregg & Bow, Wilmington, Delaware;
And the first-class makers, which we are prepared to sell on the most reasonable terms.

Also, a large assortment of single and double Harness, of the most celebrated makers:
O. Graham, New York; J. R. Hill, Concord; Pittkin & Thomas, Philadelphia.

Also, a full assortment of Dress and Light Blankets, Fur and Lap Robes, Whips, Halters, Surcingle, etc., at wholesale and retail.

CREGO & BOWLEY,

No. 9 Merchant's Exchange, California street,
24v5-3m San Francisco.

MATTESON & WILLIAMSON'S



Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knobs without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m

MATTESON & WILLIAMSON,
Stockton, Cal.The Hoadley Regulating Cut-off
THRESHING ENGINES.

The above cut represents the Hoadley New Style Threshing Engine, 5-horse power, with Patent Cut-off Governor. We also have the same style and size, with HOADLEY'S NEW PATENT STRAW-BURNING FIRE BOX. This new Engine has been thoroughly tested, and we are prepared to warrant it to give satisfaction. OUR GUARANTEE GOES WITH EVERY ENGINE INTO THE FIELD. This new engine is fitted out complete, with High Seat, Foot-Board for Driver, California Roller Brake (not shown in engraving), Iron Hub, Patent Wheels, Forged Bent Axle, and all Mountings in Perfect Order.

THE

Hoadley Straw-Burning Threshing Engine

Is no heavier than wood-burning engines of same power, and is unquestionably the Best Threshing Engine in the world. It is Lighter, Better Made, Safer, and will do More Work than any other engine of same size and price ever built. THIS FACT IS INDISPUTABLE.

Farmers and Threshers desiring to buy Straw-Burners for coming season, should secure their Engines Early, as the number is not large, and many are already engaged. All Engines will be tested in presence of customers, when required. Send for Circular and Prices. Address,

TREADWELL & CO., Sole Agents, San Francisco.

BOWEN'S PREMIUM YEAST POWDER.

Bowen's Premium Yeast Powder.

Bowen's Premium Yeast Powder.

Bowen's Premium Yeast Powder.

Bowen's Premium Yeast Powder.

Best in the World! Every Can Guaranteed!!

For Sale in Every Village, Town and City on the Pacific Coast.

Ask Your Grocer for It.

Manuf'd by BOWEN BROS., 432 Pine St., S. F., and 11th & 12th Sts., Oakland.

RELIABLE.

THE

UNEQUALED.

ONE PRICE DRY-GOODS HOUSE,

42, 44, and 46, Third Street, San Francisco.

THE GOODS ARE ALL MARKED, IN PLAIN FIGURES.

PEIXOTTO & SILVERMAN.

KIMBALL CAR, CARRIAGE

-AND-

AGRICULTURAL IMPLEMENT

MANUFACTURING CO.,

Cor. Bryant and Fourth Sts., San Francisco

ENRIGHT'S

Portable Strawburning Engines

Burns either Straw, Wood or Coal, Manufactured and sold by

JOSEPH ENRIGHT,

San Jose

Farmers and Threshers

WISHING TO HAVE

Straw Burning Engines

For next season must engage them soon, as most of these new building are already sold. Threshing engines for Repairs should be sent in now. A number of second-hand Engines—taken in exchange for "Straw Burners"—for sale cheap. For particulars and prices, address:

H. W. RICE,

Haywood, Alameda County.

THE PUMPS SLUTHOUR PUMPS

Are sold 50 per cent. under any other in the market, considering the amount of water obtained for the power applied. They have now been fully tested for IRRIGATION, and entire satisfaction is guaranteed. Call and see them, or send for Circulars.

J. M. KEELER & CO., Agents,
306 California Street, San Francisco.

BELLA UNION HOTEL,

JOHN F. MILLER, Prop.,

SAN BERNARDINO, CAL.

This fine hotel is situated in one of the best parts of the city, and the proprietor will at all times use his best endeavors to promote the comfort of his guests.

Commission Merchants.

H. K. CUMMINGS.
1858.H. K. RALSTON.
1875.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission House,

ESTABLISHED 1868.

No. 424 Battery street, southeast corner of Washington, San Francisco.

Our business being exclusively Commission, we have no interests that will conflict with those of the producer.

MOODY & FARISH,

Wool Commission Merchants,

No. 210 Davis Street, S. F.

Eureka Glycerine and Carbolic Sheep Dip; Sheep Shears; Wool Sacks and Twine constantly on hand at low prices.

Davis & Sutton, Commission Merchants,

For California Fruits; also for the sale of Butter, Eggs, Cheese, Hops, Green and Dried Fruits, etc., 75 Warren street, New York. Refer to Anthony Halsey, Cashier, Traders' National Bank, N. Y.; Ellwanger & Barry, Rochester, N. Y.; C. W. Reed, Sacramento, Cal.; A. Lusk & Co., Pacific Fruit Market, San Francisco, Cal.

IRON PIPE,

PIPE FITTINGS

—AND—

BRASS GOODS,

AT BOTTOM PRICES.

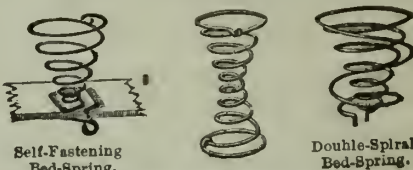
JAMES L. BARKER,

406 and 408 MARKET STREET, SAN FRANCISCO.

METAL

Commission Merchant.

Orders by mail will receive prompt attention.
mrl3-cow-hp

Self-Fastening
Bed-Spring.Double-Spiral
Bed-Spring.

We manufacture all sizes of BED and FURNITURE SPRINGS, from No. 7 to the smallest Pillow Spring; also, the Double Spiral Spring, which is the most durable Bed Spring in use. It is adapted to upholstered or skeleton beds. We have the sole right in this State to make the celebrated Obermann Self-Fastening Bed Spring. Any man can make his own spring bed with them. They are particularly adapted to Farmers' and Miners' use. Send for Circulars and Price List to

WARNER & SILSBY,

14v28-cow-hp-3m

147 New Montgomery St., S.

EMPIRE PARLOR MATCHES

We have imported the requisite Machinery and Chemicals to add to our previous assortment of Matches the celebrated Parlor Match, deservedly popular among families and smokers, on account of brilliant burning qualities, and absence of smell or odor. Manufactured from the best sugar pine, a wood superior to any other, and found only upon the Pacific Coast. They are full, round, and without objection of any kind. Packed in boxes of most desirable style. Brimstone and Safety Matches of superior quality manufactured, and are guaranteed to give entire satisfaction. Encourage Home Industry, and get superior goods at less cost than the imported article. Ask your grocer for the EMPIRE PARLOR MATCHES, and be sure you get no others. For Sale by all Grocers.

B. BENDEL & CO.,

MANUFACTURERS, 318 FRONT STREET.

FACTORY—Corner Eleventh and Harrison streets, S. F.
166-cowHooper's South End Grain Warehouse.
Japan and Townsend Streets.

SAN FRANCISCO, July, 1874.
I beg to inform you I have leased the above first-class Fire-Proof Brick Warehouse, now being erected by Geo. F. Hooper, Esq., and will be ready to receive storage on the 1st of August. This warehouse offers superior inducements to parties desiring to store grain and flour, as it is situated on the Water Front, and on the lines of the C. P. R. R. and S. P. R. R. It is well ventilated, rat proof, and combines all the modern advantages and improvements. Yours respectfully,
JOHN JENNINGS.
Advances and insurance effected at the lowest rates. Storage taken at lowest current rates. 4v5-ft

Nurserymen.

Established 1853.

Stocks for Nurserymen.

Plum Seedlings, Mirobolan, the best French stock, does not sucker.....	\$50 per 1000
Apple Seedlings.....	10 per 1000
Pear Seedlings.....	10 per 1000
Cherry Seedlings, Mazzard.....	12 per 1000
Cherry Seedlings, Mahaleb.....	20 per 1000
Walnuts, English, 4 to 6 feet.....	15 per 100
Oak Elm, best Elm, 4 to 6 feet.....	15 per 100
Blue Gum or Eucalyptus, in variety.....	5 to 10 per 100
Magnolia Grandiflora.....	
Magnolia Acuminata.....	
Magnolia Tripetala.....	
Golden Arborvitae.....	
Crataegus Arborescens.....	
Swedish Juniper.....	
Irish Juniper.....	
Heath-leaved Arborvitae.....	
Heath, Mediterranean.....	\$2 50 per doz.
Lauristinae, 6 to 12 in.....	2 50 per doz.

LARGE STOCK

BERNARD S. FOX,
San Jose, Cal.

THOS. MEHERIN, Agent, 516 Battery Street, San Francisco. 24v83

KELSEY'S NURSERIES,

OAKLAND - - - - - CAL.

Established 1852.

More largely stocked this year than any previous year. Embracing all and every kind of

FRUIT, DECIDUOUS, ORNAMENTAL AND
FLOWERING TREES AND
PLANTS, ETC.

Send for Catalogue and Price List free on application.

W. F. KELSEY, Prop.

Fruit, Shade and Ornamental

EVERGREEN TREES

-AND-

Plants for Sale.

At the old stand, corner Oregon and Battery streets, directly opposite Post Office, San Francisco.

I NOW OFFER FOR SALE

The Largest and Best Collection of Fruit, Shade and Evergreen Trees and Plants ever offered in this market, and at Reduced Prices.

Persons laying out new grounds would do well to call and examine our stock before purchasing elsewhere.

ORDERS FROM THE COUNTRY

Promptly attended to and packed with great care. A large stock of Cypress, Pines and Blue Gums for sale very low. Send for Price Catalogue.

Agent for B. S. Fox's Nurseries, San Jose.

Address THOMAS MEHERIN,
P. O. Box, 722, 516 Battery St., S. F.

1852. 1875

ESTABLISHED IN 1852.

THE STOCKTON NURSERY

I have for sale for the ensuing season a Large and Well Grown Stock of All Varieties of

FRUIT TREES,
SHADE,
ORNAMENTAL
and
EVERGREEN TREES,
GREENHOUSE PLANTS, AUSTRALIAN GUMS,
SHRUBS, ROSES, BULBS, PALMS.

Send for Catalogue.

W. B. WEST, Stockton, Cal.

PEACHES, APRICOTS AND PLUMS

are specialties at the Vacaville Nursery, Solano Co., Cal. Alexander's Early, Thurber and Peento in bud, 50 cents each; Beatrice, Louise, Rivers' Early, Lord Palmerston Lady Palmerston, Prince of Wales, Princess of Wales, Picquet's Late, Lady Parham, Italian Dwarf, Golden Dwarf, Bloodgood and many other varieties of new Peaches in bud at 25 cents each; Trees of Alexander's Early, \$1 each; Beatrice, Plowden, Freemason and a general assortment of the leading varieties, 25 cents each; Apricots, Plums, Apples, Pears, Cherries, Almonds, Figs, Olives, Pomegranates and including most of the leading varieties of fruit for sale at low prices. D. E. Hough, Vacaville, Solano Co., Cal.

The Nurseryman's Directory.

The undersigned have in preparation, a NURSERYMAN'S DIRECTORY, embracing a list of the Nurserymen, Florists, Seedsmen and Tree Dealers of the United States. The work will be sold wholly by subscription, the price of which will be FIVE DOLLARS PER COPY. A limited space will be given to Advertisements, at the following low rates:

Full Page.....	\$25.00
Half Page.....	14.00
One-third Page.....	10.00
One-fourth Page.....	8.00
One-sixth Page.....	5.50.

For Sample Pages, and further information, Address

D. W. SCOTT & CO.,

Printers and Publishers,

Galeua, Illinois.

Camellias.

We offer a large stock of these plants at low rates, ranging from 50 cts. to 1.25, according to size. They are unusually healthy and vigorous, and embrace the best white and colored sorts. Prices of the different sizes will be forwarded on application, as well as the Descriptive Catalogue. In ordering, please advise as to the mode of shipment.
We offer also Chinese Azaleas, Gardenias, etc., as well as the best and most rare DECIDUOUS and EVERGREEN

TREES AND SHRUBS.

R. B. PARSONS & CO.,

FLUSHING, NEW YORK.

F. LUDEMANN.

RUD. MICHELSEN.

PACIFIC NURSERY,

Baker St., Between Lombard and Chestnut,
San Francisco, Cal.

P. O. Box 475.

We offer this Season a Large and Complete Selection of Well Grown

EVERGREEN AND DECIDUOUS TREES AND
SHRUBS, FLOWERING AND ORNAMENTAL PLANTSAt very reasonable Prices. Our Descriptive Catalogue of Evergreens and Deciduous Trees and Shrubs, and our Wholesale Trade List (For Dealers and Nurserymen) will be sent on application. All Orders promptly filled.
F. LUDEMANN & CO.

J. ROCK'S NURSERIES,

San Jose, California.

We offer this season a Complete Stock of

FRUIT AND ORNAMENTAL TREES,
SMALL FRUITS AND PLANTS.The attention of Dealers, Nurserymen and Planters is invited to our Large Stock of Fruit Trees. All Leading Market Varieties are grown in large quantities. To all those purchasing largely we will make a Liberal Discount.
Catalogues FREE on application.

23-v8-tf JOHN ROCK, San Jose, Cal

BELLEVUE NURSERY,

Telegraph Avenue, Oakland.

WE OFFER FOR SALE THE PRESENT SEASON A LARGE ASSORTMENT OF

Ornamental Trees and Shrubs

OF BEST TRIED VARIETIES.

Many fine specimens of good size can be seen on the grounds to select from. Choice collections (true to name) put up for those starting a garden.
Street cars pass every fifteen minutes.

3v9-tf S. NOLAN.

KING'S NURSERY,

Twenty-fifth St., bet. Telegraph & Broadway
OAKLAND, CAL.Fruit, Shade and Evergreen Trees, Shrubs, Roses, Etc. Persons laying out new grounds would do well to call and examine our stock before purchasing elsewhere. A large stock of EUCALYPTUS, including BLUE GUM Pines and OYPRESS from six inches to twelve feet high. Acacias in Variety; Young Stock for Nurserymen; Pines and Cypress; Three Thousand Magnolia Grandiflora from six inches to five feet high; Camellia Japonica; Gardenia Cape Jessamine; Arbutus in Variety, at Lowest Rates. Orders attended to.
Address, M. KING, Nurseryman,
3v9-3m Oakland, Cal.

Thos. A. Garey's

Semi-Tropical Nurseries.

LOS ANGELOS, CAL.

Forty varieties of the Olurus family of semi-tropical trees, including many rare and beautiful, as well as useful and profitable kinds.

Grafted and Budded Orange Trees a specialty. Trees packed to arrive in good order. Priced Catalogue sent free. Address me P. O. Box, 528, Los Angeles city, Cal.

23v8-6m

THOS. A. GAREY.

TREES, Etc.

We offer for Spring, 1875, an unusually large stock of well-grown, thrifty

Standard and Dwarf Fruit Trees;
Grape Vines, Small Fruits;
Ornamental Trees, Shrubs, Roses;
New and Rare Fruit and Ornamental Trees;
Evergreens and Bulbous Roots;
New and Rare Green and Hot-house Plants.

Small parcels forwarded by mail when desired.

Prompt Attention Given to all Inquiries.

Descriptive and Illustrated Priced Catalogues sent, prepaid, on receipt of stamps, as follows:

No. 1—Fruits, 10c. No. 2—Ornamental Trees, 10c.
No. 3—Greenhouse, 10c. No. 4—Wholesale, Free.

Established in 1840. Address,

ELLWANGER & BARRY,

Mount Hope Nurseries, ROCHESTER, N. Y.

1875.

Established 1857.

1875.

Capital Nursery and Seed House

W. R. STRONG and ROBERT WILLIAMSON, Proprietors, having united their interests in the Seed and Tree business, offer to the public the largest and finest growth of both Seeds and Trees ever offered to the California public, of their own production, and also from the largest and most reliable houses of the Eastern States and Europe, all of which we offer as low as Eastern Dealers.

TREES. TREES. TREES.
Fruit, Shade, Ornamental, Evergreen, etc., raised in our Nurseries of the very best varieties. Dealers and Growers furnished at very lowest rates. Among our numerous varieties we call especial attention to BRIGGS' RED MAY PEACH, the earliest known, large, handsome of excellent flavor and good shipper.SEEDS. SEEDS. SEEDS.
Vegetable, Flower, Field and Tree Seeds, and Flowering Bulbs and Plants.

100,000 pounds Finest Quality California ALFALFA, RED and WHITE CLOVER, KENTUCKY BLUE GRASS, RYE GRASS, ORCHARD GRASS, VERNAL GRASS, MESQUIT GRASS, TIMOTHY, RED-TOP GRASS, and every other Grass adapted to the Pacific States and Territories.

All the finer qualities of our Seeds will be forwarded by mail (post-paid) to customers at Catalogue rates, on receipt of money, which can be sent by postal orders or registered letters, or express, at our risk.

CATALOGUES AND PRICE LISTS on application, and forwarded by mail.
WAREHOUSE, 8 and 10 J street. NURSERIES, U street, SACRAMENTO CITY. TREE YARD, I street, next to Library Building.

W. R. STRONG & CO.

SUPERIOR FRUIT TREES

TRUE TO NAME.

A fine collection of Evergreen and Deciduous Trees. Australian Gum Trees in variety, by the hundred or thousand. Monterey Cypress in quantities and sizes to suit all. Orange and Lemon Trees at reduced prices. A general variety of Nursery stock.

Also, Rubus and Asparagus roots.

T. CORLEY,

18v29-tf

315 Washington Street, S. F.

PEPPER'S NURSERIES.

(Established in 1858.) PETALUMA, CAL.

Green Houses and Tree Depot corner Washington and Liberty streets.

4 Green Houses. 3,000 feet of Glass. Fruit Trees a Specialty.

We offer for sale at lowest market rates a general assortment of Fruit and Shade trees, small Fruits, Vines etc. Evergreen trees and Shrubs in great variety. Green House, Conservatory and Bedding Plants, Roses, etc.

We are now ready, Nov. 1st, to fill orders for trees and plants. Catalogue and price list furnished on application.

Address, W. H. & G. B. PEPPER,

18v8-tf

Petaluma, Sonoma Co., Cal.

HOP ROOTS FOR SALE.

I have a lot of choice HOP ROOTS, and also healthy BLACKBERRY SETS for sale at LOWEST RATES. Orders may be addressed through DEWEY & Co., of the Rural Press, San Francisco; ROBT. WILLIAMSON, Capital Nurseries, Sacramento; or to me,

CALVERT T. BIRD,

24v8-3m

San Jose, Cal.

FOR SALE.

10,000 Acres Grazing Land—San Luis Obispo County. Title, U. S. Patent. Apply to MOODY & FARISH,
210 Davis street.

BLOOMINGTON NURSERY, Bloomington, Ill.—F. KHENIX. Spring lists free, or the set of four catalogues post free for twenty cents.

AMMONIA!

For Washing and Cleaning Purposes.

For Sale by all Grocers.

This article is universally used in Europe, and recently introduced for general family use in San Francisco and neighborhood, is already in great demand. It is now the intention of the manufacturers to introduce it all over the Pacific Coast, at prices which will bring it within the reach of every household.

DIRECTIONS.—For cleaning Woolen Fabrics, Cutlery, Carpet or Crockery; for Scrubbing Floors, Washing Paint, Removing Grease Spots, Shampooing or Bathing.

It renders water soft, and imparts a delightful sense of coolness after washing.

Also, SULPHATE OF AMMONIA for chemical purposes, fertilizing, and the preparation of artificial manures.

AMMONIACAL PREPARATION for the prevention and removal of hoarse voice. CRUDE AMMONIA for general manufacturing, and PURE LIQUOR and AQUA AMMONIA for chemical and pharmaceutical purposes.

Manufactured by the

SAN FRANCISCO GAS-LIGHT CO.

eowbp

Miscellaneous Notices.

Union Box Factory,

GEO. W. SWAN & CO.,

115 and 116 Spear St., bet. Mission & Howard
SAN FRANCISCO.

Apple, Pear, Plum, Peach, Cherry, Grape, Orange, Lime and Wine Cases.

Tomato, Potato, Fig and Raisin Boxes.

Strawberry, Raspberry and Blackberry Chests and Drawers, and Baskets for all kinds of Berries.

Peach and Picking Baskets, Butter Chests and Boxes, Cheese Boxes, Square and Round Egg Carriers.

Drums for Figs, Cherries, Raisins, and for other Dried Fruits.

Free Packages—Boxes not to be returned—a good article, costing less than Sawed Boxes.

Lard Caddies, Coffee and Fruit Caddies.

Turkey and Chicken Coops, Bee-Hives, Etc.

Packing Boxes for Dry-Goods, Cigars, Candies, Canned Fruits, Honey, Macaroni, Crackers, Sugar, Soap, Boots, Etc.

In fact, every style of Boxes manufactured in the Union, and turned out in the Best Style at Favorable Prices. Orders from the country well attended to

J. Y. WILSON.

WM. FAULL.

W. L. MERRY

WILSON, MERRY & CO.,

Provision Packers

And Dealers in

SALTED AND SMOKED MEATS,

Lard, Etc.

PROP'S BLACK POINT PACKING HOUSE.

We respectfully call the attention of Farmers and Stock Raisers to the fact that we are always prepared to purchase bogs, cattle and sheep at full market prices, for Cash, and shall be glad to answer promptly any inquiries addressed to us on the condition of the Market.

Office No. 223 Sacramento St., Near Front,
San Francisco.

ERNEST L. RANSOME,

Artificial Stone Manufacturer,

No. 10 Bush Street, San Francisco,

Office Hours 1 to 2 Daily.

GRINDSTONES at 3, 2½ and 1 cent per pound according to quality. In ordering state for what purpose the stone is needed.

"I have used one of your grindstones for some time, and it is the best I ever had."
November 20, 1874. F. J. CURREY,
Prop. S. F. Boiler Works.

EMERY STONES, VASES and FOUNTAINS, GRAVESTONES and CEMENTERY WORK, STONE DRESSINGS GENERALLY, NATURAL STONE hardened and preserved, SILICATE OF SODA for Soap Makers and Laundrymen, Ac.

PORTLAND CEMENT for Sale in Lots to Suit. Send for Price-List. eow-bp

J. M. NEVILLE.

G. H. BRYANT

NEVILLE & CO'S FACTORY

113 Clay and 114 Commercial Sts.,

SAN FRANCISCO.

BAGS of All Kinds,

TENTS, All Sizes and Descriptions.

HOSE for Hydraulic Use.

CANVAS, All Numbers.

TWINE for Sewing, Etc.

J. & P. N. HANNA,

IMPORTERS AND DEALERS IN

Grain, Wool, Ore and Bean Bags,
Flax, Cotton and Linen
Twines.COTTON, DUCK, RAVENS AND DRILLS—33, 36, 40
42 and 45-inch Wide Duck; 8, 10, 12 and 15-Ounce Duck.Ore Bags, Tents and Hose
MADE TO ORDER.

Nos. 308 and 310 DAVIS ST.,

San Francisco, Cal.

ALEX. BUSWELL,

BOOK BINDER, PAPER RULER

AND BLANK BOOK MANUFACTURER.

521 Clay Street, S. F.

Blank Books Ruled, Printed and Bound to Order

Brittan, Holbrook & Co., Importers of
Stoves and Metals, Tinners' Goods, Tools and Machines,
111 and 113 California, 17 and 19 Davis streets, San Francisco, and 178 J street, Sacramento.

CALISTOGA

REAL ESTATE COMPANY.

Calistoga, with a population of about 800 persons, is a village watering place at the head of the valley of Napa, in California. It is four hours' travel north of San Francisco by steamboat and rail.

Its shipping port is Vallejo, on the bay of San Francisco, forty miles distant by rail. It lies at the head of the most charming valley in the State.

THE BEAUTIES OF NAPA.

In traversing this thirty-seven miles of fertile dale, the eye never wearies. If one ascends the sides of the leafy mountains that bound the valley on either side, whether looking up the valley or down, and from whatever point of view, the scene is one of ravishing beauty.

Mounting the summit of St. Helena, which towers over all, far to the east the snowy Nevada's bound the view; and to the west spreads the Pacific ocean, with its winged ships and its blue horizon. To the north are the vast forests of Mendocino, its stately trees, trained to shrubbery and Clear Lake in its pride of expanse dwindled to a mill dam.

THE WARM SPRINGS.

From the beauties of Calistoga we turn to its other attractions. The estate covers 2,000 acres of fertile land. Its warm springs are crowded with invalids, who flock to its healing waters, and who return cured of their rheumatism, their dyspepsia, their torpid livers and their tender kidneys. The medicinal elements of the hot springs are principally iron, magnesia and sulphur. In this climate, the season of watering places is prolonged.

THE SURROUNDINGS.

By consulting a map it will be apparent that Calistoga is destined to become a commercial town of importance. It is the center to which converge innumerable highways leading to many of the richest cultivated valleys of California.

INDUSTRIAL ENTERPRISES.

A new industry is now being introduced at the head of the valley of Napa, which will give easy employment to all the boys and girls, and contingently it will support other new industries. It is but the beginning of many others. Three miles below Calistoga is selected as the site of a large factory for saving and canning fruits and vegetables that now go to waste, and encouraging the production of more. In no part of California can these healthful elements of human food be cultivated more cheaply or more abundantly. Considering the depth of its rich soil, its prolonged season, and the extraordinary vegetable growth in this country, one acre may be considered equal to three elsewhere. This industry is carried on in the Atlantic States. If irrigation be wanted, artesian waterflow may surely be found all along the valley, for it is backed by mountain ranges full of living waters.

MINES:

GOLD AND SILVER AND QUICKSILVER.

Calistoga is the center also of a great mountain range rich in mines of cinnabar and silver. Already its furnaces are producing mercury, and the product is increasing yearly. A number of valuable mines are now being profitably developed in the region around the base of Mt. St. Helena, at Pine Flat, on the Great Geyser road, and near Sillies' Mill, on the Clear Lake road. All of these are from ten to fifteen miles beyond Calistoga, to which point their products come, and from which their supplies are carried. The deposits of cinnabar occur in well defined veins, and as they are now being scientifically developed they bid fair to rival in productiveness the celebrated mines of New Almaden.

CALISTOGA REAL ESTATE CO.

The splendid property above described, containing 2,082 acres, divided into town lots, suburban lots, country seats, hotel property and farm tracts, has been bought by the above named company, and is now offered for sale to the public.

The Capital Stock of the Company is
\$1,000,000,

Divided into 20,000 Shares of \$50 Each.

The sale of a certain number of shares has been authorized by the Board at the rate of

Twenty-five Cents on the Dollar, Making
12.50 Per Share.

By an arrangement between the former owner and the present company, no portion of this land or the proceeds of its sale, is consumed by expenses or in even the smallest degree diverted from the use and benefit of the stockholder.

Whoever buys Stock in the Company receives his pro rata share of this property, with its crops and rents in the meantime, without one cent of deduction for expenses of any kind, even including Taxes. And this, too, no matter how valuable the property shall become.

Unlike the homestead schemes which have heretofore attracted our people, this plan gives homes and interests in and adjoining towns already built; where trade and growth are already assured, and where daily increase gives promise of greatly added values to all its property. It is a division of this ripened heritage that is now offered to the subscribers.

TRUSTEES:

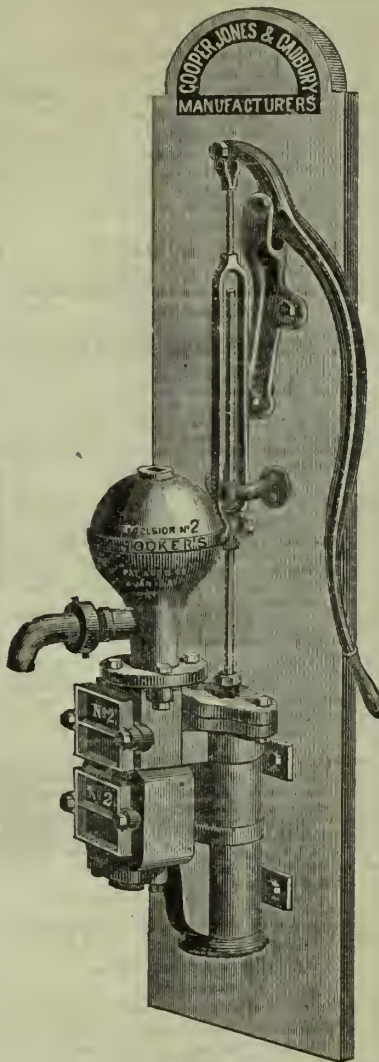
E. W. BURE,
President Savings and Loan Society.
C. HARRISON,
President Bank of Napa.
B. FRISBIE,
President Vallejo Commercial Bank.
JULIUS WETZLAR,
Pres. Capital Savings Bank, Sacramento.
COLONEL J. P. JACKSON,
San Francisco.

WILLIAM H. MARTIN,
GENERAL AGENT,

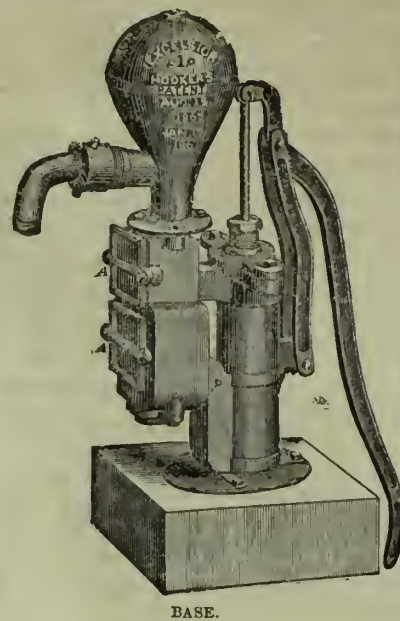
Cor. Webb & California Sts., San Francisco.

THE "EXCELSIOR" FARMERS' PUMP.

After Eight Years' use, proving itself the Best Pump on this Coast, and consequently the CHEAPEST.



MOUNTED.



BASE.

We can advise all parties to buy the Pump to be worked by hand, windmill or horse power. All sizes for sale.

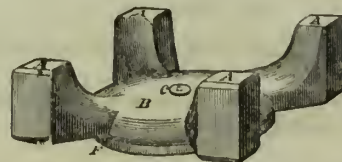
REMEMBER,

Every Pump is tested to 125 lbs. hydraulic pressure per square inch.

Will pump water 250 feet high.

So simple every farmer can keep it in order.

EVERY PUMP WARRANTED.



VALVE.

BRITTAN, HOLBROOK & CO.,

Send for Circular.

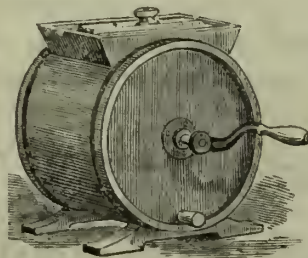
111 & 113 California St., S. F., (and also Sacramento,) Gen. Ag'ts.

E. K. HOWES & CO.,

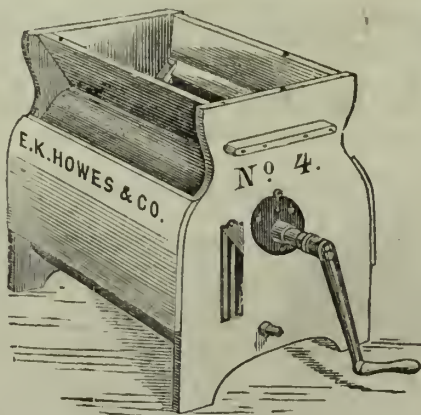
NOS. 118, 120 and 122 FRONT ST., SAN FRANCISCO.



BOX CHURN.



CYLINDER CHURN AND DASHER



THERMOMETER CHURN.



BLANCHARD CHURN.

SOLE MANUFACTURERS ON THIS COAST OF

All Descriptions of Churns, Butter Workers & Moulds, Butter Tubs, (35, 50 & 60 Pounds), Butter Kegs—Plain and Gal Hoops—Wholesale & Retail.

Send for Price List and Illustrated Catalogue. Single Churns sent by Express, C. O. D., if desired.
979-cow-3m-16p

NEW CROP OF
BLUE GUM SEED.

GRASS AND CLOVER SEEDS.

FLOWER AND VEGETABLE SEEDS.

TREE AND FRUIT SEEDS.

OF EVERY DESIRABLE VARIETY AND OF THE BEST QUALITY; OFFERED AT WHOLE-SALE OR RETAIL, BY

GEO. F. SILVESTER,
SEEDSMAN,

No. 317 Washington Street,

24v8-tt SAN FRANCISCO

1874. GUIDE AND CATALOGUE 1875.
FREE.

To persons contemplating purchasing I will send my ILLUSTRATED, DESCRIPTIVE CATALOGUE AND GUIDE to the VEGETABLE and FLOWER GARDEN WITHOUT CHARGE. It contains the most extensive and valuable list of



Flowering Bulbs, Roots and Plants, Semi-Tropical Trees, Ornamental Shrubs, Fruit and Shade Trees, etc., ever offered in this market. It tells how to successfully grow the Australian Blue Gum, the Monterey Cypress, Pine, etc., and the proper method of Cultivating Tobacco on this Coast.

My stock of seeds is in part my own raising and in part direct importations from the best European and Eastern growers, and is unsurpassed in all respects by that offered by any other establishment. 100,000 Australian Blue Gums and Monterey Cypress in boxes at from \$30 to \$50 per 1,000, raised at my own Nursery at San Rafael.

R. J. TRUMBULL,

Grower, Importer, Wholesale and Retail Dealer in Seeds, Shrubs, Trees, etc.

20v8-6m-16p 427 Sansome street, S. F.

Improve Your Poultry,

IT COSTS NO MORE TO KEEP GOOD FOWLS THAN POOR ONES!

OAKLAND POULTRY YARDS,

Cor. 18th and Castro streets, Oakland, Cal.

Eggs for Hatching

GUARANTEED FRESH,

True to Name,

And to carry safely to any part of the country.

BRAHMAS, LIGHT AND DARK LEGHORNS, WHITE AND BROWN HOUDANS, COCHINS, BUFF, BLACK AND PARTRIDGE POLISH, GOLD AND SILVER, HAMBURG GOLD, EN, SILVER AND BLACK GAMES, AYLESBURY AND ROUEN DUCKS, DORKINGS AND DAN. TAMBS.

BRONZE TURKEYS, the Largest in America. Send for Circular to

GEO. B. BAYLEY,
Box 659, San Francisco.

M. FALLON,

Cor. Seventh & Oak sts.,

OAKLAND, CAL.

Light & Dark Brahmans, Buff, White and Partridge Cochins, Spangled, Golden and Silver Polish, Pure White-faced Black Spanish, White and Brown Leghorns, Silver Grey Dorkings, Houdans, Silkies, Black-Red Games, Bronze Turkeys, Rouen and Aylesbury Ducks.

All from Premium Stock of Best Strains.

Fowls of above varieties for sale; also, Chicks in their season. Eggs packed with care and sent in rotation as orders are received. 1v3-16p-17

Bronze Turkeys

Emden Geese

12 Gobblers from 8 to 20 months old, 22 to 40 lbs each, for sale now. Hens 14 to 18 lbs.

40 to 50 pounds per pair at maturity.

BLACK CAYUGA DUCKS,

Games, Brahmans, Leghorns, Houdans, Bantams, etc.

Eggs, fresh, pure, true to name; well-packed so as to hatch after arrival.

For Illustrated Circular and Price-List, address

M. EYRE, Napa, Cal.

FERRETS.

RABBITS.

PIGEONS.

Please state where you saw this advertisement,

PACIFIC RURAL PRESS

Volume IX.]

SAN FRANCISCO, SATURDAY, APRIL 3, 1875.

[Number 14.]

An Agricultural Implement Warehouse.

Among the establishments that have come within the observation of our reporters in their search for objects denoting industrial progress is that of

Keller & Co.,

Of Sacramento. We herewith give an illustration of this agricultural implement warehouse on J. street. The wagons, gang plows, and other implements displayed in front are representations of those for sale by the establishment, and the elevated frame on top is surmounted by the "Regulator" windmill, for which they have the agency. Among the mechanical necessities of California the windmill is supposed to hold about as prominent a position as it occupies in the accompanying illustration, and the "Regulator" is claimed as holding a corresponding prominence among the many windmills now in use.

Concerning the past record and present position of this establishment our reporter writes as follows:

"It gives us pleasure to mention that there is no class of tradesmen more thoroughly awake to the necessities of the producer than are our leading agricultural implement dealers. Of the numerous leading firms engaged in this line of business, we would refer particularly to Messrs. Keller & Co.—an engraving of whose place of business appears on this page. We have met these gentlemen personally, and find in them that highly social amiability which is always characteristic of the successful business man.

Less than four years ago the firm embarked in the agricultural trade, their stock for the first season being mowers only. Encouraged by the success of their venture they added to their stock year by year, such articles as they, in their intercourse with the farmers, found were lacking in the trade—but not deviating from their original resolution to do a strictly legitimate implement business, carrying stock which farmers would want, and that alone.

They came before the farming people this season with a full store of implements, all of which are of the latest improved styles, and are new. They sell the

J. S. Case & Co's Engine and Thresher, Manufactured expressly for the California trade; one of which thrashed for Dr. Glenn, of Colusa county, we believe, last season, 5,745 bushels of wheat from sun to sun. This, it is claimed, is the largest day's work ever accomplished in this line. Under test these engines—which are 15 horse-power—have been run up to 30 horse-power without producing any perceptible strain.

Their headers are the Haines latest improved single gear, with compound lever so arranged as to give them a double fulcrum, thereby making them self-regulating. The reel is driven from the main drive shaft, and revolves just the same in turning a corner as when mowing in a straight line. Their

Foust's Hay Loader

is the most complete implement of its kind, as has been proved, and the sulky revolving hay rake is a superior implement.

They keep also the "Excelsior" mower (three sizes) which is so well known as to need no comment. Anything in this line of trade can be had from this firm. It is their express desire to offer only that class of goods that will prove a benefit to the purchaser, and such as they can warrant to give satisfaction.

In the engraving can be seen, placed upon the front of the building, a new style windmill. It is a Michigan patent, and judging from the flattering reports that attend it from its native State, and also from Wisconsin, Ohio, Indiana and Illinois (where it has been in use for years) it is destined to become a great favorite in this

country. It is called the "Regulator," taking its name from the power it has to regulate its speed, so as to run with uniformity whatever may be the force of the wind. It has a vertical vane, the construction of which is like a section of the fan wheel, which is so adjusted as to constantly control the speed of the wheel. Its points of friction are so small that a breath of air will keep it in motion. Yet when the tempest comes, by turning edgewise it stands motionless until its fury has subsided. It is warranted to stand any gale that does not unroof buildings. It is no more expensive than ordinary windmills. This, with a variety of force and stock pumps, can also be had at Messrs. Keller & Co's, whose address is Nos. 43, 45, and 47 J street, Sacramento, Cal."

THE SAN JOSE STARCH FACTORY.—One of our traveling correspondents notices the above es-

The Fruit Dryers.

In another portion of our paper to-day will be found a card from the agent of the Alden Fruit Preserving Company, of California, in answer to one that appeared in our last week's issue, from Marshal P. Smith, of Baltimore, Maryland.

The card of Mr. Smith has been in our possession for some months; its personal character excluding it from the reading matter department of our paper. It was finally published as an advertisement, calling forth the reply which we publish to-day.

The questions at issue here should really have gone into the courts for settlement, and

Our Reclaimed Tule Lands.

A growing opposition is evident among the holders and owners of reclaimed tide lands to the burning of the surface tule sod. This method was accounted one of necessity among the first reclamationists, and answered the purpose of cheaply preparing the land for the seed, which was either trod in by driving sheep or brushed in by Chinaman; and from lands so prepared enormous crops were obtained, reaching in exceptional cases to seventy and even eighty bushels of wheat to the acre; but many of the large fields of grain to be found this year on newly reclaimed land, are on land which has not been burnt.

The standing tule was burnt off, before the surface sod was dry enough to burn, and the ground was then thoroughly cut into and turned over by the sharp tule plow, and then torn up by harrowing. Into ground so prepared, from twenty to forty pounds of seed was sown to the acre, and there are no better looking fields of grain in the State than those now growing on Grand, Sherman and Staten islands on land so prepared.

The surface of land so prepared is necessarily rougher than well burned land, but not sufficiently so to impede growth, or harvesting, and this feature disappears after a year or two of cultivation. When the sods have rotted and broken up, and when once the soil has settled down evenly, it has been found that it is much more favorable for after cultivation than when the sod has been burnt off; and it is also claimed that in seasons of drouth lands so prepared give up more moisture than burnt land.

Burning is a violent remedy in any case; and one unfavorable result is immediately apparent in burning the sod on tule land—that of converting the fine particles of alluvium disseminated through and about the sod, into a brick-dust condition, which quite discolours the surface of the ground, and which has lost its nutritive qualities. But while a certain percentage of loss in this direction is hardly apparent at the onset in cultivation, it nevertheless does draw directly from the soil, and its loss, however rich the remaining soil may be, will be felt sooner or later. Besides, the soil is lowered by burning and loses in advantage of drainage, in low land, and the burnt lands are more likely to mire in wet seasons than the naturally elastic sod-surface. We think the weight of results will decidedly lean toward the cutting up and rotting process, and that hereafter the sod burning plan will only be accepted by those who wish to speedily realize profit at the expense of their lands.

One feature now evident in the reclamation of these tule islands, is the absence of water from the lower inland parts, about which considerable anxiety was manifested at the time of reclamation; it being feared that after reclamation should be completed, water would remain over interior parts, and prevent cultivation. On some islands, drainage ditches were made to convey this expected seepage out at low tide; but the experience has been in those districts where such ditches were made, when the sloughs were properly drained and the proper embankments made, that no water has been found to be carried off, and such ditches may yet be utilized for irrigating purposes, rather than for drainage. In fact, the interior lower parts of these islands, which in reality are only slightly depressed, are found to be fully equal to exterior parts, and in years of extreme drouth would undoubtedly prove superior.

The value of reclaimed tule lands is now practically demonstrated, and we have the gratifying knowledge that these tracts, so long neglected, are now yielding most munificent returns, and will do much in the future to mitigate the evils of our periodical drouths.



tabishment as follows: "Two miles north of the court-house on First street, is located the wheat starch factory of Mr. J. Johnston—the only manufactory of the kind, I believe, in the State. The factory is a large, three-story, frame building, well arranged for the business, and abundantly supplied with the purest water from strong-flowing artesian wells. Mr. J. uses only the white and best California wheat in the manufacture of his starch, and as our wheat possesses superior qualities for this business; no imported starch, either from wheat or corn, can equal it in beauty or economy. Having had the pluck to be the first to launch out in this business in California Mr. Johnston should receive the encouragement and patronage of those who would support home industries."

It is estimated that there is needed for the consumptive wants of this city, including shipments to various points in the interior and to foreign markets, an average of 60,000 sacks of potatoes per month, and the returns for the past three years confirm this view.

RECENTLY our subscription clerk was ill, and answers to a few letters were delayed, for which we owe an apology to the parties interested. We aim to be prompt and thorough in all our business departments.

many have looked for their appearance there, as the Baltimore establishment announced its intention nearly a year ago, of commencing suit against parties selling or using the Alden evaporator. No such suits, however, have yet been introduced; though the threat, hanging over the fruit growing community, has undoubtedly restricted the use of the Alden process, affected the fruit-drying business of the country at large. The Alden Company, however, declare themselves ready to guarantee to all who use their process, entire immunity from any and all legal damages from this or any other quarter.

The Alden process has done much toward solving the great problem of disposing of the enormous fruit product of California. The only charge that has been made against this process is the expensiveness; and it is worthy of note in this connection that all the Alden fruit-drying establishments heard from, have been run to the profit of their owners. They have met the wants of our fruit situation thus far; their drying capacity is being increased, while the cost of the apparatus is being reduced; and we may very properly consider the past success of the Alden process as a guarantee of a career of still greater usefulness and profit.

SHEEP shearing has commenced in Santa Clara county. The clip promises to be large.

CORRESPONDENCE.

(The Rural Press, in opening the columns of this department to its correspondents, does not desire to lay before its readers anything which is not in keeping with its character and position as an agricultural and family paper. Facts are always thankfully received; and suggestions and matters of opinion on subjects connected with agriculture are also acceptable; though correspondents are to be understood as speaking for themselves and not for the Press.)

Central California.

Twelve Years Ago.

EDITORS PRESS.—I first saw Fresno county a dozen years ago—a dozen years—what a period in a human life! The middle aged of that time are now gray-haired, and those that were boys and girls are now wearing whiskers or—or jute. Our party consisted of seven men with everything necessary for a comfortable prospecting tour. We were but a few months together, yet each of their individual minds is more perfectly impressed upon my own than are those with whom I have associated for years. One was an old mountaineer, always happy, always pleasant and ready to do anything, from killing a grizzly to sewing on buttons, and with a spirit of accommodation that prompted him to take upon himself the trouble of everybody else, and dispose of them with the utmost slacrity. Two, like myself, were teachers, two merchants and one—good, old Brother Smith, we'll call him—a preacher; a good companion, a deep thinker, a good conversationalist and a most devout Christian.

We came across the great valley of California, then an unsettled wilderness, and made our first halt at Fort Miller, where the San Joaquin leaves the foot-hills of the Sierra Nevada. After a day of rest, passed in enjoying the shade of the big oak trees—a luxury not found in the hundred miles of plain preceding—we packed up and went southward to Big Dry creek, where we stopped for lunch. While we were eating, a couple of horsemen rode up. We invited them to share our repast. They were real mountaineers, and in their quaint phraseology they gave us much desirable information about the country ahead of us. As they were about leaving, Brother Smith spoke to them on the subject nearest to his heart. I give the conversation *verbatim*:

"Are there any people about here that are at all religious?"

"Which?" (By both of the men).

"Are there any people about here that fear the Lord?"

"Well, yaaa," answered one, "I reckon't old Jimmy Haddam—he lives in that cabin furthest the hill down thar—I reckon't he fears the Lord. He never goes out 'n a Sunday 'thout taking his gun along."

Schools and Churches.

I have been a ending a few days with friends on Big Dry creek in the exact locality referred to above. They now have a fine seminary building there, which has cost thousands of dollars. And, as might be expected among people of so much educational enterprise, they have had a most excellent school for several years.

I attended their church afternoon and evening last Sunday, and listened to two very able discourses. The house was crowded to its utmost capacity, while there were several that were not able to get into the house at all.

The next morning I took a walk to the top of a hill, a half mile from the school house—a hill of granite with several large leads or ledges of quartz running through it. From here we could overlook the valley—could see the homes of half a hundred families, that will compare most favorably in enterprise, thrift, wealth and education with those of many older settled localities.

Mines.

Here are all the indications that the prospector would ever wish for quartz mines. But very few claims have yet been located. Several tons of rock have been taken out of a ledge claimed by Cole & Sample. The portion of rock they have had worked has paid about \$50 per ton. Their ledge is well defined, several feet in thickness, and like the celebrated Comstock ledge, lies between the granite on one side and the sedimentary rock on the other.

Coarse gold has been found in several of our mountain streams, though so far no one has ever stumbled upon either quartz or placer mines here of great value. I use the term "stumbled upon" advisedly, for the country has never been prospected.

King's River Switch

Lies 20 miles south of Dry creek. It is 209 miles by railroad from San Francisco. For two years after the railroad was built, it was but a "switch," the company not thinking enough of it to build a depot or even keep an agent here. But now quite a little town has sprung up. Here are two general merchandise stores, a tavern, the omnipresent saloons, a Chinese wash house, etc. I wish I could tell you the name of our town. On the railroad checks it is called King's river. Our post-office is called Wheatville, while the portion of the town east of the track is called Drapers, after

our worthy landlord, and west of the track it is called Aarons, after the principal merchant of the place. Several meetings have been called, and the usual committees have been appointed to try and harmonize these into some satisfactory name. The suggestions have been various. One wishes to call it all Wheatville, another that it be called Draper, another Centralia, as it is exactly in the center of the State, while another with an originality which seems but little abort of inspiration, suggests that it be called Unkelsi, in honor of the "h-avy" man of the town, and urges that a post office of that name would forever be free from having letters misssent, as there would be no other name resembling it in the whole country.

Land, Price, Quality, Etc.

When I came here last October, there were thousands of acres of the choicest of land lying vacant. I did not choose to publish the fact at that time, as I had a desire to get as many of my landless personal friends here as possible. Many of them came and found homes, and many more would have done so, but for the fact that several townships proved to be "open to private entry," and when the fact became known it was all "gobbled up" by speculators in a single day. Of course, with such a large area, so recently sold at government price, land is very cheap here. Indeed, a great portion of the best is still government land, held by homestead or pre-emption claims.

Every acre of this immense valley can be cultivated. Here is nothing in the way of the plow. Boulders, gravel and bed-rock are unknown here. The soil is a sandy loam, inclining to sand on the highest part of the plains and changing to a clayey loam on the river bottom. The land is so entirely destitute of rock of all kinds that here are dozens of old work horses that have never had a shoe on them, and have never required shoeing.

I shall spend the coming month among farmers further down the valley, and will then write more fully of the productions of the country than I possibly could do at present.

Where art Thou?

I suppose every newspaper reader has an idea of the form and extent of our State. To find the exact locality from which I am writing you have only to imagine a line drawn from the southeast corner of the State diagonally across to the northwest corner; then across the center of this draw a line at right-angles from the ocean to Nevada. In the center of this cross line, near the Southern Pacific railroad, the future raisin farm of California will be situated.

Timber.

There is a limited amount of timber along King's river; but the fuel supply of the valley is dependent on the floodwood from the river banks. For a hundred miles along the upper course of the river, in the mountains, it is an almost continuous forest. There is some of the finest timber in the State—the largest tree in the world, called General Grant, formerly known as the Big Tree of Tulare—is in sight from where I write. But it is 30 miles away, 6,000 feet above us, and over some of the wildest mountain country ever seen. I measured the tree a dozen years ago—I do not now remember its height—but its circumference is 137 feet, eight inches. But my observation at the time was that these forest giants find their staunchest ally in arithmetic, rather than spectacular effect. Their surroundings are all on the same grand scale, and without actual measurements and comparison, the beholder seems unwilling to accept them as surpassing all in the world beside.

Climate.

The climate here is very hot and dry. Too little rain generally to be certain even of grain crops without irrigation, though by summer fallowing and putting in the grain "in the dry," it is claimed that a good crop with a good volunteer the year following can be depended upon.

We have had three severe frosts during the present month. Once it froze ice a quarter of an inch thick. The past winter has been the coldest ever known here. It has killed semi-tropical trees that have stood the eight preceding winters. I have not heard of any orange, lemon or lime trees being killed, and therefore have no hesitancy in setting mine out, feeling certain that with the loog, hot summers and the limited amount of frosty weather, even in the coldest winters, that all varieties of citrus will grow here to perfection, together with most other semi-tropical fruits.

Irrigation.

Judge Deering, several eminent lawyers, a number of your San Francisco capitalists and about one half of the people of our valley, have been putting their heads together to try to find out something about the rights and ownership of ditches, rights of water, future irrigating necessities, etc., but as I have not learned the result or decision in the matter, I cannot now inform the reader, but will give the matter in detail in some future letter. One fact is very important—it is this—in spring and early summer, when irrigation is most needed, our streams are highest. King's river, in the month of June, carries a volume of water sufficient to irrigate 6,000 square miles of land—to flood it, if necessary. During the winter, while there is rain in the valley, the river is very low; but when the summer comes, and the spirit of the desert assumes his withering dominion and dries and scorches the vegetation of the plains, the same heat changes the ice and snow on the distant mountains to water, which comes rolling down in a river bank-full and in many

places spreads over the lower bottom lands, covering the surface of the valley a dozen miles in width, and presenting the scene of a tropical valley flooded in midsummer—such a scene as none other than the valley of the Ganges, Indus or Nile can present.

Mountain Scenery.

I have looked upon the Alps from eastern France and northern Italy, have seen the Val-cian and Appenines, through the crystal air of the Italian summer, have seen the Cordillera for 500 miles of their extent, the rugged mountains of the Sandwich islands and most of the mountains of our own country, and yet have never seen equalled the view now before me of the Sierra Nevadas. During the early part of the day a stratum of clouds has lain midway along the mountain wall. This is now broken into ragged shreds and the sun sweeps down the long array of peaks, gilding summit after summit, as if the great Creator were reviewing these giants of His hand and they were answering Him back with a smile.

I might describe Mt. Whitney with the two adjacent peaks, all over 15,000 feet in height, as they are outlined to my view against the eastern horizon on either side of Whitney—might tell about the great King's river canon and point out where a rivulet leaps down the mountain wall, making an unbroken fall of 1,900 feet, of the abundance of game and trout in the thousands of beautiful meadows and streams away in the fastnesses of the mountains—but what has the reader done that I should thus persecute him? I will not do it. I'll ask his parting blessing and commend him to the future tourist to learn more of this, the Switzerland of America.

W. A. S.

Wheatville, March 21, 1875.

More About Los Nietos, Los Angeles Co.

MESSRS. EDITORS.—I should, perhaps, explain my meaning in the last paragraph of my former paper. In saying that Mr. G. K. M. measures things by a standard of the country he left behind, I want it distinctly understood that I do not acknowledge the Upper Country (where I have passed some years of my life) to possess, proportionately, any advantages over this country, except what years of settlement and cultivation, and improvements and a handy market have given it. As to the market, I cannot say that I believe there are grounds for fears in that direction here. I remember well, how easy the San Francisco market was overstocked by the scanty products of years ago, and yet, with the fabulous products of these times it is easier to sell a crop now than it was then. The same is true here; with the growth in variety and amount of our products we have an increase of facilities for disposing of them.

With regard to the customary late frosts, spoken of by Mr. G. K. M., I will say that I have been sixteen years a resident of California, ten years of which time were spent in the central part of the State, and I have seen proportionately, as much late frost there as here. Once if not twice, I saw severe frosts in the latter part of April. Here, two years ago, on the 19th of April, we had a severe frost, which hit grass and grain in bloom. At the same time it was quite frosty all over the State; and even in the States of the Mississippi valley. When we do have late frosts they injure us, because our seasons are generally forward; but are late frosts common? This is the point on which I desire to enlighten all those who do not know. I affirm positively, that they are not common. If they were common a warm spring would be the exception, and we should never be caught with potatoes, beans and corn in such state as to be bitten by the... On the contrary, when we do have late frosts they invariably injure us. But our frosts and cold weather are not what Mr. G. K. M. would lead you to think. He evidently wishes to convey to the minds of his friends "north of the Bay" the impression that our climate is about as severe as their's, and that they had better stay where they are. I should have no objections, I am sure, if he would write these things in a private letter to his friends, but addressed to the public they do harm.

He says, in some localities grasshoppers are bad. Messrs. Editors do you remember, that some years ago the grasshoppers ate up the Sacramento valley? Does any croaker ever say of that country, grasshoppers are sometimes very destructive? About five years ago, there were a few grasshoppers in the borders of Los Nietos, but they did but little damage. I have since heard that they damaged the Cocamunga vineyard, but there is still plenty of Cocamunga wine in the market. A man must be solely in want of something to write about, that would mention grasshoppers here in the face of what they suffered in the North-western States last season or to mention cold weather or frosts here in the face of what they there suffer in this line now.

The fact is, sir, that at this time the hardier kinds of flowering herbs and shrubs are now in full bloom; and there is rye in this neighborhood now headed out, and we sit daily without fire in our sitting rooms. Compare this state of things, even if mercury should go down to 30° every night, with the state of the inhabitants of the eastern slope of the Rocky mountains, and the great States of the Upper Mississippi, or even with that of the greater part of this State, and can any candid, thinking man say that friend G. K. M. writes in the true spirit of a lover of fairness?

Los Nietos, March 1, 1875.

Manufactories of San Jose.

MESSRS. EDITORS.—One of the great wants of California is an increased number of manufactories; not only of such tools, machinery and agricultural implements as could be advantageously manufactured here, instead of importing them from the East; thus saving vast sums of money at home, encouraging and increasing home industries, giving steady and profitable employment to our laboring classes, favoring the increase of population and helping to develop the resources of the State; but more especially do we need to encourage and foster such manufactories as may convert our more delicate and perishable productions into such articles of commerce as may be safely and conveniently carried into the markets of the world, or held in store without damage or loss, to supply the market at home. These things were suggested by a recent visit to two of our largest fruit-preserving establishments. In a future number I will have something to say about the other manufactories of San Jose.

Perhaps in no country in the world can such a variety of fruits be grown in beauty and excellence, embracing those of so wide a climatic range, as California; and so numerous and extensive are these fruit-growing districts, that if they were improved and cultivated to the fullest extent, we could supply all the large cities of the Eastern States with our fruits, if they could be carried to them. But our distance from these centers of population, the high rate of freights, and the great risk of damage and loss on such perishable articles as ripe fruits, will forever preclude their shipment in this State, except in comparatively small amounts. To overcome these difficulties, and solve the anxious inquiry,

"What Shall We Do With Our Fruit?"

Has occupied the thoughts, and exercised the inventive genius of our people for several years. As a result, we now have several patented fruit-driers in the market, soliciting public favor. This is not written in the interest of any of these inventions; my present object being to call attention to some of our most prominent manufactories.

The San Jose Alden fruit-preserving company, incorporated with a capital of \$50,000, erected their manufactory last year in the southern portion of the city, on the road to the "willows." They set up and used two of the Alden evaporators or dryers, and so well pleased are they with their first year's operations, that they are making arrangements to increase their business this year, by adding

Three or Four More Dryers.

And extending their buildings to a corresponding capacity. They have some of their prunes and other dried fruits on exhibition at the Farmers' Union, which look splendid. Such prunes and preserved fruits, as those put up by this company, will, I should think, need only to be introduced and tested in the markets of the East, to secure for them a market for all they can manufacture. They will pay out a large amount of money this year to their employees, and in the purchase of fruit, boxes, etc.

The San Jose fruit-packing company was incorporated under this title January 20th, 1875, with a capital of \$200,000. Their manufactory is on the corner of Fifth and Julian streets. This company are busily engaged in making arrangements for a large business this season. Their storehouse will be a fine fire-proof, brick building, 40x115 feet. They are also increasing the capacity of their work rooms to three times the size formerly used by J. M. Dawson & Co., of whom they are successors. All their fruit cans and caps are made in their work room. All their fixtures and machinery for business are of the most substantial and approved plans. Their line of manufactured goods consist of canned fruits and vegetables, pure cider vinegar, jellies, jams, pickles, preserves, cat-up, sauce, etc.

They will employ during the working season about 200 hands, and intend putting up 500,000 cans of fruit. This will put them in the market with a large amount of fruit and vegetables. The wide-spread and justly earned reputation of this valley, as to variety, beauty and flavor; and the superior and attractive style in which this company gets up their goods, have already won for them a reputation for which they and the community at large, might be justly proud.

San Jose, March 16th, 1875.

SAN JOSE MACHINE WORKS.—Prominent among the manufacturing establishments of San Jose we would notice that of Joseph Enright on the corner of First and Williams streets. On our visiting the place the other day, we found every part of the large and well arranged work rooms and boiler yards, full of work and busy workmen. Mr. Enright is prepared to do a general manufacturing and repairing business, but is now making iron house fronts and portable engines his specialties. He has under construction and near to completion, fifteen straw-burning portable engines—adapted to use either straw, wood or coal for fuel. Mr. E. employs a large number of men, and his whole place presents a busy and business-like appearance. He says he can, and does, build first-class engines at such prices as to prevent any being brought here from the east.

Mo. G.

Mohair.

EDITORS PRESS:—Enclosed you will find a specimen of work done by McCracken and Welch of San Jose, which we think worthy of your attention, and that of your many readers.

The dyers of America have tried in vain to find a mordant, that would set a jet black dye on any kind of a fur skin without injury to the skin or fiber, and we know of but one house in England that has made a perfect success of dressing and dyeing fur skins black—hence our furs and other pelts have mostly been sent to England to be dressed and dyed where a black was required. We pay a duty of \$4 on seal skins to get them to England and returned, therefore Angora pelts of a jet black have been very costly and rare. We think McCracken and Welch are now making as perfect a jet black as can be done in England, and as fast color; retaining the lustre and beauty of the fiber, and the soft pliability of the strength of the skin. This is evidently a success achieved in this line, worthy of the highest commendation; they can dress and dye Angora pelts, and other furs, for much less than the duty alone if sent to Europe to be dyed; and will therefore, by cheapening the article, throw millions of pelts into market that would not otherwise even find their way there, for want of a suitable dye. At a reasonable price, these men, are preparing to dress and dye skins on a large scale. In San José we have lately heard of another American invention, of considerable importance, particularly to breeders of Angora goats. John Shinn, of Philadelphia, has invented a loom for weaving a pile fabric, at any depth of pile and in connection with the Corn bank of Philadelphia and others is now engaged in building a factory for the manufacture of mohair plushes. The firm of Niblet, Brown, Niblet & Co. are interested in the factory; they are supposed to be the heaviest importers of mohair plushes in America. These plushes all come from France, and comprise all the finest class of plushes in the world. They are used for all the finest car coaches and other fine furniture. This company now propose to use when under weigh 1,000 pounds of mohair—Angora goat fleeces—per day. This will include all grades of mohair; they propose to use the coarsest buck fleeces and grade fleeces, down as low as it can be sheared off, into the various qualities of plushes, and the finer qualities of mohair into imitation of seal skin, which they say they can make very perfect, even better than the genuine seal skin.

Following is a P. S. from Mr. Shinn in answer to inquire in regard to a sample of our lowest grade fleeces:

P. S.—I am right among the manufacture of ingrain carpets, and am personally acquainted with most of them. The samples of $\frac{1}{2}$ and $\frac{3}{4}$ breeds is two thirds of it too good for ingrain; about one-third the short fibers will make good filling. The balance would make a first-class warp yarn, but though I think it is too good for that purpose. It will make excellent yarn for velvet carpets and rugs. I am personally acquainted with several of our largest wool dealers, and I think I will get you sale for all you have like the sample I have received. Respectfully,

J. SHINN.

I also enclose samples of ladies' dress goods, made by Hall & Turner, of Jamestown, New York, from California mohair, the first mohair goods made in their new alpaca and mohair factory. Mr. Hall pronounces the mixed goods a success, but says he will improve on the luster of the black in the next lot which he is now making. I have shown these goods to several merchants and they all agree that they compare favorably with English mohair dress goods. Mr. Shinn remarks in his communication: "The only trouble I have to dispose of my patent loom is, when I approach manufacturers they say I would like your looms but can't get the mohair," and at the same time the breeders say, "Where is our market." Now, he says, "Let them send on their fleeces and we will give them a market." The fleeces is all we want to make a success with our loom, in furniture, plushes, velvets or seal skin imitation.

WM. M. LANDRUM,

Of LANDRUM & RODGERS,

Watsonville, March 23, 1875.

Further from Mussel Slough Country.

EDITORS PRESS:—I notice in your columns of March 6th, under the head of "Cheap Land for Alfalfa," a brief sketch of our very fertile section of country, in which I find one or two mistakes; and beg leave to correct them and give your many readers a few more facts concerning our locality, soil, production, etc.

The Mussel Slough country lies between Cross creek and King's river, in the western portion of Tulare county. I would advise all seeking homes in this county to visit this section, as there is still room for more among us. We have five co-operative ditch companies, the names being as follows: Settler's, Lakeside, People's, Last Chance, and Lower King's River. The last named has been in successful

operation for three years. The other four will be in operation this spring. I saw several varieties of small grain, corn, vegetables, and alfalfa growing last year on irrigated land, and all seemed to flourish. Alfalfa has been tried here for three years, and has given astonishing returns, and many farmers are giving it considerable attention the present year. This land, when well irrigated, is all that is desired for alfalfa, as the water remains so near the surface that it is almost impossible for it to die when once started to growing.

Most of the land here is occupied, and deeded land is worth from \$10 to \$25 per acre, according to improvement, facilities for irrigation, etc. I would say to all home-seekers, come and see this favored spot of God's country for themselves, for some can always be found who will sell out their interest in Paradise hoping to reach the seventh heaven.

J. Y. MCQUIDDY.

Jonesa, Tulare Co., March 15.

Some Big Figures from Humboldt Co.

MESSRS. EDITORS:—I thought as you were so kind as to give us a hearing through your valuable paper, I would send you a few facts and figures concerning the productions of our section of the State. This is, as you are aware, a great stock growing county, and dairying seems to be the chief business. There is not over one-fourth of our county that has tillable soil; but what tillable land we have cannot be surpassed in the State. For instance: J. W. Stephens, who is my neighbor, planted in 1873, 18 acres of potatoes, that produced 4,320 sacks, or a fraction over 15 tons per acre; measuring a single acre in the field that yielded 324 sacks, or a fraction over 20 tons. And on the same farm, C. J. Barber, the same year, sowed 15 acres of oats, from which he harvested 144 bushels per acre on an average; while Chas. Harkens raised, on Bear river, 105 bushels of wheat per acre. And the same year I raised on the farm of B. Ross from 800 pounds of barley that I sowed, 700 bushels. In 1872 Mr. Halley threshed 122 bushels of oats per acre, and 118 bushels of barley per acre. Last fall Thos. Brazill threshed from 25 acres of barley, 2,784 bushels. In 1873, Orrin Dudley threshed 115 bushels of oats per acre; and last, but not least, C. J. Barber, in 1866, raised a potato that weighed 7½ pounds.

IRA BURGETTE.

Ferndale, Humboldt Co., March 14, 1875.

From Shasta County.

MESSRS. EDITORS:—I have been surprised at not seeing anything in your papers in regard to this remote part of the country; notwithstanding we have a railroad with its train running into our quiet little town of Reading daily. This is the present terminus of the Oregon division of the Central Pacific railroad. Reading, it is true, is not a large town; but we have all branches of mechanical industry that are requisite for a country town. It is surrounded by a farming and mining community, also a vast territory adapted to grazing purposes. We have thousands of acres unoccupied, that are well adapted to the vine, and this has been proven to be one of the best localities in the State for vineculture. I do not see why some of those emigrants who are seeking homes in our State do not come up this way, as there is plenty of land which can be procured at low prices. One great advantage which we have up in the head of Sacramento valley—our crops are never a failure. It is true we sometimes have a short crop, but never entire failure.

The weather has been exceedingly fine for six weeks. We need rain very much; our crops are in want.

In conclusion I would say to all who are in search of good climate and a locality where they wish to make permanent homes, let them come up this way. We will extend them a cordial welcome.

J. J. B. JONAS.

Reading, March 23, 1875.

From Borden, Fresno County.

MESSRS. EDITORS:—Notwithstanding we have had but little rain the past month or more, the growing crops are looking very well; being much in advance of the crops of last season at this date; and all branches of business appear to be more prosperous at present. The progress of irrigation is rather slow, owing to the limited amount of water. It is feared that the supply will not be so great as was anticipated some time ago; we hope, however, that an equal distribution of the water can be had, so that we may all have alike.

I have seen in your paper many valuable remedies for many ailments, and, with your permission, I will add one to the list, for burns which is as follows: Make a thin batter of kerosene and flour, and apply it to the parts burned as quickly as possible, excluding the air. This will take the fire all out. It should be kept moist by the application of oil, or by renewing the application. In ordinary cases it prevents blistering. Let those who have not used it, give it a trial and they will not hesitate to recommend it.

FARMER.

Borden, Fresno Co., Cal., March 8, 1875.

Description of Hungry Hollow.

MESSRS. EDITORS:—I will give you a description of Hungry Hollow. It is a beautiful valley, some nine miles long north and south by an average of six miles in width east and west. It is bounded on the south by Cache creek, on the west by Cache Creek mountains, or what is sometimes called the Coast Range of mountains; on the north and east by the foothills which separate Hungry Hollow from the Sacramento valley. There are several thousand acres of grain in the hollow that look delightful. Unless it keeps dry there will be large crops of grain in the hollow this season. We are in plain view of Mount Diablo, some sixty miles north of that prominent point.

CLODHOFFER.

Hungry Hollow, March 21st.

The Winter Here and at the East.

It is generally acknowledged that the past winter in California has been all that could have been desired. There were some shortcomings on the part of February and March in regard to spring rains, though these delinquencies have been made good to a certain extent by the rains of the past week; but, taking the two together—and really the California year should be halved instead of quartered into seasons—have we not reason to be satisfied?

It should make us more thoroughly content with our lot to glance over the past winter's record in the Atlantic States.

We clip the following from the *Western Rural* of a recent date:

"We think it is generally conceded that the cold weather has pretty effectually killed the peach crop all over the West, especially since the discouraging reports have been received from Michigan.

At the February meeting of the Alton, Ill., Horticultural Society, Dr. Hull stated that after a thorough examination he had found the greater part of his peach buds destroyed. All the terminal and prominent buds were killed, but a few buds near the base of the twigs were still alive. He thought, however, if no further killing took place, he might get as much money from what were left as he would have done if the crop had been generally good over the State.

Other members reported that they were pruning their trees without reference to fruit, since they expected to get none. Others, again, reported not more than two or three buds in a hundred alive, and these doubtfully so.

From Villa Ridge, Ill., which is most favorably situated, reports are that buds are left for one-half a crop, and from South Pass that there will be no peaches this year.

From Michigan reports continue discouraging, but we hope the disaster to trees and buds is not so wide spread there as is feared."

The Indianapolis *Sun* of Feb. 13th thus refers to the past winter:

"This will go into history as one of the remarkable winters. It has been a great while since there has been so many weeks of uniformly cold weather in all parts of the country. The severity of the freezing has very materially damaged wheat and fruit, and the supposition is that in many places in Indiana the fruit has been totally destroyed, as well as trees and grape vines."

The *Utica Observer* of same date speaks of the past winter in central and northern N. Y., as follows:

"In speaking of the weather a common habit prevails of asserting, 'this is the coldest winter (or hottest summer) ever known,' etc. But when, as of late, the mercury marks for days in succession 30°, and, as this morning, not only approaching but actually reaching 40°, there can be no error in characterizing this the most severe winter since the civilized occupation of Northern Ohio."

From the Territories we gather the following items in regard to the severity of the winter and its consequences. The *Spirit of the Times*, Walla Walla, Oregon, says:

"We learn from some of our fruit-growers that all the fruit of this valley is more or less injured, and in some instances the trees are entirely killed. As a consequence the peach crop will be very light the coming season. One of them informed us that all the bloom buds, on the trees he had examined, were blasted and that most of the trees were also killed. A large per cent. of the plum prospect too, in like manner, had been nipped in the bud. The buds on the pear trees, to a large extent, have shared a like fate, and in the opinion of some experienced orchardists, there will be no cherries at all. The apple is much more hardy, but even that crop is injured to a greater or less degree. We hope these fears may not be realized to so full an extent; as the fruit crop was one full of promise to the future prosperity of this county, and has for the past few years, been the means of throwing, by no means, an inconsiderable amount of money in circulation in the immediate vicinity."

The Dalles *Mountaineer* has not heard of much loss of stock yet, probably owing to the dryness of the snow, which prevented a frozen crust from forming, so that cattle could travel without cutting their feet. It was reported that about \$1,000 worth of sheep had perished

from one band. We hope this is rather a solitary instance.

The Walla Walla *Statesman* is informed that large numbers of cattle, horses and sheep are dying along Dry Creek and other places. We hardly hear from a locality but some stock have fallen before the severe weather.

Cattle in Whitman county, W. T., are faring very badly. They were poor to start in with, and but few stockmen are prepared to feed any length of time. They have generally depended on Snake river for a winter range, and consequently nearly all the cattle in Whitman county are along on Snake river, and as the snow is deep along the river as on the uplands, and there being no brush for them to browse on nor timber for shelter, the cattle on that range are not doing very well.

The past winter has left a similar record in all parts of the United States and the Canadas; California alone having escaped. This has manifestly exerted a mighty influence in increasing the volume of the impending immigration to California; and this we should consider a special reason why we should be satisfied with the dealings of the past winter. Another point in this connection should be considered: the probable effect which the damage resulting to the fruit crop of the East from the winter's severity. There can be little doubt that the prospective peach crop, at least, has been to a great extent destroyed at the East, while most other fruit trees have suffered severely. This must necessarily result in an increased demand for California dried fruits. This should be taken into consideration in connection with the fruit drying operations of the coming season. Whatever the demand may be our fruit growers and dryers will be ready to supply it. We hear of no unfavorable reports of predictions concerning the coming season's fruit crop. Other crops have undoubtedly suffered to some extent; but this, with the exception of strawberries, may be considered as almost certain.

How MALT IS MADE.—The grain is first taken up by an elevator run by steam, and is poured into a weighing bin, from which it passes through an automatic arrangement, where the chaff, light heads, dust, etc., are carried off by the air, after which the good grain passes over a sieve, which separates any other foreign matter which may remain. It is then carried to the storage room by a conveyancer. The grain is now ready for the steeping or soaking tubs in the basement, where it remains from 24 to 48 hours, according to the grain and temperature. After being sufficiently steeped, the grain is removed to the different floors by an elevator and spread out so as to give it time to sprout before being placed in the kilns. It is necessary in the manufacture of malt to have the grain sprout in order that the sugar may be extracted, from which the alcoholic properties is derived. After the sprouting process the grain is placed in the kilns, which have to be kept at a certain temperature and the malt stirred up or turned over several times to prevent its being overheated. It requires fifteen to sixteen days to convert the barley into malt ready for the manufacture of beer.

CREMATION.—The practice of cremation by open-air burning has recently been referred to as long practiced by the Indians in various parts of the country; but we have no recollection of ever before meeting with a cremation process, as described below. We copy from an exchange: Cremation appears to have been practiced in this country in the ages anterior to its occupancy by our present race. In the region of North Carolina the custom was to cover the body with clay and build a fire upon it, which not only consumed the body, but converted the clay into a hardened mass, or sarcophagus. In the region of Indiana it appears to have been the custom to place the body, with the feet, within an oven of clay, the ashes being left in the receptacle after incineration.

How TO USE A GRINDSTONE.—Common grindstone spindles, with a crank at one end, are open to the great objection that the stone will never keep round, because every person is inclined, more or less, to follow the motion of his foot with his hand, which causes the pressure is always applied to the very same part of stone, and will soon make it uneven, so that it is impossible to grind a tool true. To avoid this, put in place of the crank a small cog-wheel of 13 cogs, to work into the former. The stone will make about 107 of a revolution more than the crank, and the harder pressure of the tool on the stone will change to another place at every turn, and the stone will keep perfectly round if it is a good one. This is a very simple contrivance, but it will be new to many of our readers.

TO CRYSTALLIZE FLOWERS.—Construct some baskets of fancy form with pliable copper wire, and wrap them with gauze. Into these tie to the bottom violets, ferns, geranium leaves—in fact, any flowers except full-blown roses—and sink them in a solution of alum of one pound to a gallon of water, after the solution has cooled. The colors will then be preserved in their original beauty, and the crystallized alum will hold faster than when from a hot solution. When you have a light covering of crystals that covers completely the article, remove the basket carefully, and allow it to drip for twelve hours. The basket makes a beautiful parlor ornament, and for a long time preserve the freshness of flowers.

PATRONS OF HUSBANDRY.

STATE GRANGE HEADQUARTERS.

I. G. GARDNER, State Agent; Executive Committee Rooms; Fruit Growers' Associations, and Farmers' Mutual Life Insurance Company, all at No. 6 Liedersdorf street. W. H. BAXTER, State Secretary, at Grangers' Bank, 415 California street, S. F.

NOTICE TO STOCKHOLDERS OF THE GRANGERS' BANK OF CALIFORNIA.

At the meeting of the Directors, on Feb. 9th, the following resolution was passed:

That all assessments due and not paid on Feb. 1st, 1875, shall be charged interest at one per cent. per month from that date till paid. It will be to the interest of all delinquents to give this notice prompt attention.

Also the following resolution was passed:

That on all stock taken on and after the first day of April, 1875, a premium of one per cent. per month will be placed, reckoning from Aug. 1st, 1874, on all assessments payable up to the time the stock is taken.

P. A. CRESSEY, Sec'y.

San Francisco, Cal., Feb. 9th, 1875.

Grange Clubs for the Rural.

The Secretary (or some other Patron) is invited to act as club agent for the Pacific Rural Press in every Grange. Circulars and sample copies sent free. Five or more names will constitute a club, at the rate of \$3 a year. No new subscriptions will be taken without payment in advance. We will pay the postage after Jan. 1st, 1875. All club subscriptions in Granges should end on the last day of the month. Old subscribers may join the club by paying the Secretary up to club dates. Every Patron farmer should read a reliable agricultural paper. We need the support of all on this coast. Help the Secretary (or club agent) to make up a large list in your neighborhood. Don't delay.

Secretaries will be supplied with a printed list of subscribers for this paper upon sending a list of their offices within the range of their Grange. Also with blank reports, etc., for clubs.

Grange Directory.—A full list of officers of the State Grange, Deputies, names of Councils, Subordinate Granges, Masters and Secretaries will appear in this department on the first Saturday of each month.

THE NATIONAL GRANGE AND THE TEXAS PACIFIC RAILROAD.—We have received several communications in reference to the action of the National Grange in favoring a Government subsidy in aid of the Texas Pacific Railroad; all, we believe, deprecating such action. Several of our Subordinate Granges have also passed resolutions to the same effect. We have this week received a copy of such resolutions, passed by the Bodega Grange, on the 19th inst. We have thus far refrained from publishing anything on the subject, because we have not had the opportunity to learn, fully, the motives which prompted such action. The report of the debate on that matter, as far as published, is very meagre; but as the action seemed to be quite unanimous, is it not reasonable to infer that good and strong reasons were urged for such action? We presume that as soon as our California delegation returns, they will furnish a full statement of the whole matter for publication. Until then we feel that it will be for the interest of the Order that judgment should be suspended, both by individuals and by the Order in its organized capacity. Action will be most effective when based upon full information.

THE KANSAS-NEBRASKA SUFFERERS.—I. G. Gardner, of the California State Grange, has addressed a circular to every subordinate grange in the State, calling especial attention to the communication of General Jas. S. Brislin, U. S. A., and other letters in our columns, last week. Immediate action is desirable, and we trust every grange will respond at the first meeting after receiving the circular. Free transportation will be furnished by the railroad company, and Goodall, Nelson & Co., will forward free to this city, anything which may be delivered to any of their steamers. All goods should be marked, "I. G. Gardner, 6 Liedersdorf street, San Francisco—for Kansas and Nebraska Sufferers."

THE STATE BUSINESS ASSOCIATION.—Reports of a most satisfactory character still continue to come in from the canvassers who were sent out to the subordinate granges two weeks ago. The returns already received render the early inauguration of business by the Association a matter of certainty. We hope to be able to give full reports from the various canvassers in our next issue.

BROTHER E. L. SMITH, from Olympia, W. T., is now in San Francisco. Formerly a resident of this State, he has a natural liking to remain in California, and we hope he will tarry here. Brother S., who is Worthy Lecturer in the Oregon State Grange, has had the pleasure of organizing some fourteen prosperous Granges in this jurisdiction of his deputyship.

STATE GRANGE IMMIGRATION AGENT.—Serious charges have been published by several newspapers concerning this agent above referred to, Josiah E. R. When the case is investigated the readers of the RURAL will be fully informed of the facts.

The Grangers.

Address of National Deputy Hamilton Before the Delaware State Grange.

At the formation of the Delaware State Grange, last week, National Deputy John M. Hamilton, of California, delivered the following address:

Patrons: It is with more than ordinary feelings of pleasure I have performed the duty assigned me, this day, of introducing Delaware into the Fraternity of Patrons of Husbandry. 'Tis fitting that the Representative of the Golden State should celebrate the nuptials of the Diamond State with a brotherhood we fondly hope destined to be the honored instrument of working a mighty revolution in all matters pertaining to the agricultural interests of our common country.

In my mountain home, where the pure breezes from the blue Pacific are always singing and sighing among the mighty redwoods and pines of canon and mountain top, like music from a harp of a thousand strings the glow which ever fills my bosom when praise or sensure is bestowed upon the State I love so well, assures me that I am still a Delawarean, and have a deep and abiding interest in your welfare. Although my adopted home occupies such a warm place in my inmost heart, I feel this day that my love for Delaware burns just as bright as it did twenty-four years ago, when I left here for the shores of the Golden State. The honored names of your prominent agriculturists of a quarter of a century ago—your Reynolds, Holcombs, Jones, Clarks, Jacksons, and a host of others, are to my children who have never seen your azure skies, or breathed your balmy airs, familiar as household words. I knew them all—I love their memories still—and if, amid the throng before me, there are any sons or daughters of those, I bid you welcome and congratulate you on being permitted to walk in the path your honored sires would have proudly trod.

To you, Worthy Master, is confided a sacred duty. In accepting the position which has been assigned you by your fellow Patrons, you have assumed a responsibility which you cannot lightly shake off. The interests of the Order in this State have been confided to your keeping, and the success and prosperity of it will depend in a great measure upon the fidelity with which you execute the trust which has been placed with you. It will be your duty to use all your powers to guard the interests of your Brothers and Sisters in the Order. It will be your duty to secure justice and impartiality to all. It will be your duty to watch over the constitution of our Order—that sheet anchor of our hopes—and see that its provisions are fairly and literally carried out—to see that none gain admittance to our ranks who are not worthy of membership among us—whose interests are not identical with ours—who cannot or will not co-operate with us in working out the object for which we are bound together. It will be your duty to teach principles of equality and fraternity—to inculcate a love for justice—to cherish kindly feelings—to smooth asperities which may arise—to reconcile differences which may exist—to pour oil (if need be) upon the troubled waters—to bring order out of confusion, and show to the world how the cardinal principles of our Order, Faith, Hope, Charity and Fidelity, when properly exercised and carried into the every day affairs of life must ever prove a blessing to those who exercise them in sincerity and truth.

If you are careless and indifferent your assistants will sooner or later become infected in the same way. If you teach by example a want of punctuality, your dependants will soon acquire this fault. If you fail to instruct and provide suitable employment for your laborers, their families will soon become rusty and un-serviceable. In all your acts let me urge you to be "wise as the serpent and harmless as the dove."

To you, Brothers, let me say, you also have duties to fulfill. Without your aid, in season and out of season, the labors of your Master will be of no avail. He has to look to you for that support and assistance necessary to carry into effect the measures he has in view. You must assist him not only to cultivate the soil upon which you wish to make an impression and from which you desire to reap a bountiful harvest, but you must also assist him to sow the seed, and in due time give your energies to assist in securing the crop which in good season ever rewards the faithful husbandman. You must remember the war in which you have engaged against monopoly and imposition has to be fought to the bitter end. You should never sleep at your post; your enemies are tireless and vigilant; they are ever on the look out to find a weak spot at which to strike. They know, full well, that the agriculturists of our land are a mighty power.

They know what co-operation will accomplish. They know the rank and influence which the tillers of the soil will acquire if they but act in union. Brothers, then let me urge you always to be on your guard. Never let the interest of our Order suffer from indifference or neglect on your part. Make sacrifice, if need be, for the common good. Let no personal prejudice—no sectional or political feeling—act as a barrier to prevent that free intercourse and exchange of courtesy which ought to characterize members of one brotherhood. Let no the breath of slander turn you from your purpose. Let no unworthy feeling of jealousy ever prompt you to forget the obligation to stand by each other. Let not the attacks of

your enemies cause you to relax your efforts, or divide your strength, but come up as one man to the support of our common cause and you will be mightier.

Sisters, let me say to you in our Order alone a woman placed in her proper position—not superior, not inferior, to man, but as equals and co-workers in the same good cause—a cause in which the wives and daughters and sisters of farmers are deeply interested, for the duties of the hearth and home are just as important as any other on the farm. In our Order we make no distinction in sex. Merit and qualification are the only tests for place and influence among us, and the silvery tones of our worthy Sisters in debate or counsel is music in our willing ears. We are not advocates of woman's rights in the common acceptance of the term. We are not admirers of the strong minded who, forgetful of that delicacy and propriety which so endears woman to our hearts, and gives her such a hold upon our affections, would usurp the place for which a kind Creator never made them, but we do welcome the Sisters of our Order to our councils. We do ask of them to lighten our labors with their presence. We do ask them to share our toils of home. We do ask them to cheer us with their smiles. We do ask them to make home attractive. We do ask them to assist us both by precept and example to maintain the dignity and honor and standing of our noble calling. We ask them to be true to nature for nature is always beautiful; nature preaches to us forever in tones of love, and writes truth on everything in glowing colors. And we ask all to have charity one towards another; be compassionate, for we are taught by holy writ as well as experience that tears of compassion are sweeter than dew drops falling from roses on the bosom of our common mother. Wherever the duties of the field and household are alike well discharged, where the matron and husbandman each perform their allotted tasks, where harmony in all the workings of the farm prevails, there plenty and prosperity and happiness will be enjoyed, and the free and independent life of the farmer will be realized to its fullest extent.

Let it be your care, Brothers and Sisters both, to guard with jealous care the interests of our order. Ever look with distrust upon those who would sow the seeds of disension among you. Remember you are engaged in the first and noblest of all occupations, and the only one of divine origin. Remember history proves that where agriculture has been fostered by a people, that nation has prospered and reached a high degree of perfection; and whenever it was neglected degeneracy began. Let us heed the warning and escape the doom.

New Granges in Nevada.

EDITORS PRESS:—On Monday, March 22d, I organized Elko Grange, No. 9, at Elko, Nevada. The following is a list of officers for the present term: J. A. Tinker, M.; E. Burner, O.; J. F. Barker, L.; G. W. Lytton, S.; E. S. Yeates, C.; John Hunter, T.; J. L. Keyser, Sec'y; Thos. Hunter, A. S.; H. Tuttle, G. K.; Mrs. G. W. Lytton, Ceres; Mrs. J. A. Tinker, Pomona; Miss M. Yeates, Flora; Mrs. H. Tuttle, L. A. S.

On Tuesday, March 23d, I organized Lamaille Grange, No. 10, at Lamaille Valley, with the following list of officers, viz: Edwin Odell, M.; J. H. Jewett, O.; J. K. Smith, L.; A. B. Marvel, S.; Jacob Leddie, A. S.; M. E. Stoteller, C.; Albert Wines, T.; H. M. Trueman, Sec'y; W. M. Biggs, G. K.; Mrs. Amelia T. Jewett, Ceres; Mrs. Barbara E. Bvers, Pomona; Miss Anna Biggs, Flora; Mrs. Mary Wines, L. A. S. Postoffice address, Elko, Nevada.

On Wednesday, March 24th, I organized Halleck Grange, No. 11, at Camp Halleck, Elko county, Nevada, with the following list of officers: J. S. Fenn, M.; R. W. Day, O.; H. J. Keith, L.; J. J. Campbell, S.; H. McCain, A. S. Maurice Geary, Sec'y; N. Phillips, C.; J. D. Abel, T.; F. T. Gueuberg, G. K.; Mrs. M. A. Abel, Ceres; Mrs. J. T. Campbell, Pomona; Mrs. Harriet Day, Flora; Miss Emma Abel, L. A. S. Post and express office, Halleck station, C. P. R. R., Elko county, Nevada. Preparation is being made to organize in Star, Clover, Ruby and Mound valleys in the same county.

Elko is a fine agricultural portion of the State, and contains several fine valleys well adapted to the growth of grain and most kinds of vegetables. The two last named Granges propose to unite in the construction of a flouring mill at Camp Halleck. Many of the farmers in Elko county possess a good degree of intelligence and enterprise, and have provided themselves with comfortable homes, surrounded with shrubbery, fruit orchards, gardens, etc., and yet there is plenty of room for others to locate there and do likewise. Stock raising forms an important branch of the industrial pursuits of the people, and a large portion of the fine beef found in the San Francisco markets is from the Elko herds. Grain and vegetables find a ready home market in the several mining towns in that vicinity. The potatoes grown in Elko and Humboldt counties are superior to any I have ever found in California. Some attention is being paid to the growth of alfalfa in that portion of the State, and I see no good reason why it cannot be as successfully grown there as in Wa-hoe county. I find the RURAL Press in many farmers' homes in this State, and I find too that it is read with interest and its merits duly appreciated.

A. J. HATCH.

Home Again.

MESSES. EDITORS:—After another journey through snow and ice and wintry storm of nearly eight thousand miles I am at home again.

The kindly greeting and courtesy extended wherever I have been have served in a great measure to modify the rigors of the wintry blasts. I have returned more fully impressed than ever with the belief that no part of the American continent can be compared with our own favored State.

To realize this let any one ride three thousand miles through snow and ice, with the thermometer at zero, and at times many degrees below, see no signs of vegetation, the earth frozen hard as a rock to a depth of three or four feet; see stock of all kinds crouching and shivering before the pitiless storms; trees and shrubbery stripped of all signs of vitality, lifting their bare arms as if to woo warmth and life from the sickly rays of the winter sun. All cold, cheerless and desolate. Then within two or three hours after this come to where trees are covered with brightest green, where fruit blossoms fill the air with rich perfume, where grass and grain of most luxuriant growth, covering the earth like an emerald carpet; breathe the deep draughts of our pure, invigorating, balmy air; look upon our azure skies, without a speck or cloud upon the horizon, the magnificent scenery of our hills and valleys, the lights and shadows as they play and shift on mountain side and top; the cattle and sheep upon a thousand hills, with sleek and glossy sides, showing that nature has provided bounteously for them. Let any one do this, as I have done within the short space of a few days, and they will readily understand the enthusiasm which prompted me the morning after my arrival, as I stood by my own mountain home, and looked upon a scene of beauty which pencil and brush can never equal, to breathe the words:

"I've wandered long and wandered far,
But never have I met,
In all the lands o'er which I've roamed,
A spot so lovely yet."

The meeting of the National Grange at Charleston was one of those events which form an epoch in history. Representative men and women from every part of our common country met in council, not only to deliberate and perfect plans for the benefit of our own organization, but for all the agriculturists of our land.

Many measures of direct benefit to Patrons were acted upon, the utmost harmony prevailed in our councils, prejudices were removed, friendships were formed, fraternal ties were developed, a better understanding of the wants, capacities and feelings of the citizens of every part of our Union was obtained by this intercourse than could have been had under any other circumstances. Faith in each other's integrity, hope for each other's success, charity for each other's differences of opinion and fidelity to each other's welfare and our vows of fraternity were the noble sentiments which pervaded every bosom.

The hospitalities of Charleston were of a princely character, her sons and daughters vied with each other in extending courtesies to the members of our Order; all our wants were anticipated, and everything which could contribute to our comfort and enjoyment was provided for us.

California was honored with positions on all four of the most important committees of the session—on Trials and Appeals, on Constitution and By-laws, on Digest, and on Currency.

The preparation of the digest, which will include the laws and usages of the Order, the rulings of Worthy Master Adams, the decisions of the National Grange on points submitted to it, and a manual of parliamentary practice, was a work of much labor, and will be of incalculable benefit to the Order throughout the land.

My duties on this committee, and on Constitution and By-laws, and as chairman on Trials and Appeals, left no idle time on my hands during the session.

I have brought with me the new annual and some slight changes in our secret works, which I wish to communicate to my deputies as soon as practicable. I shall be in San Francisco the second week of April at the regular meeting of our Executive Committee, at which time and place I would like to meet as many deputies as can make it convenient to be present.

Fraternally yours,

J. M. HAMILTON.

Guenoc, March 25, 1875.

THE GRANGE DIRECTORY.—In the supplement to the Press of this week we give the Grange Directory, revised and corrected. The changes and corrections made have been manifold, requiring a large amount of labor; and after all our efforts to have it correct in every particular, it is not unlikely that some errors may have crept in. We desire to be informed of all such errors and will correct them at once, though the correction can not be published until the next regular issue of the Directory, on the first Saturday in May.

From the Granges.

Alhambra Grange.

EDITORS PRESS:—Our Grange does not often trespass upon your space, but our meeting last Saturday was so interesting and eventful that I beg to put it on record. We initiated a class of three in the third degree, and made a good day's work by hearing Brothers Baxter and Marks, in able and concise speeches, explain the purposes and tendencies of the Grangers' Business Association. They took the brethren by storm; in our enthusiasm we postponed parliamentary thanks, but essayed to gratify them with more substantial approbation. Every Brother and Sister of Alhambra Grange then present, came forward and signed from two to twenty shares, according as the spirit moved them. Keep those apostles of our cause "a-going," and the ten thousand shares will roll up before the March moon wanes. "230."

Alhambra, March 23, 1875.

Reading Grange.

EDITORS PRESS:—Reading Grange is progressing very nicely. It cannot boast of as large numbers as some other Granges, but we have a good membership composed of good material. We had one of those harvest feasts on last Saturday, the 20th. We excited a class of four members, and received petitions for four applicants to become members of our Order. This occasion will doubtless long be remembered by those who participated in it. We were honored with Worthy Masters from Millville and Cottonwood Granges, besides many members from both of the above named Granges. Over seventy-five ladies were seated at the table, which was well laden with the good things of this world, such as none else but Grangers can produce. JONAS.

Reading Grange, March 23d, 1875.

Petaluma Grange.

EDITORS PRESS:—Last Saturday, 20th inst., Petaluma Grange had a special meeting at 1 o'clock, and speaking according to programme. The first speaker, R. C. Haile, read and commented on the Constitution, etc., of the Grangers' Business Association, then proceeded to show the necessity and expediency of it, and how the Grangers would receive immediate benefits. His remarks were given in a calm, business style, and were easily understood and apparently free from exaggeration. Mr. O. Hubbel followed with rushing and rising reasons rolling rapidly 'round, full of enthusiasm from beginning to end; and the more he imparted the more he left. He is a powerful Hubbel, and he knows what he is about. Wm. Vanderbilt, Secretary of the Association, was called, and he proceeded to discuss and explain certain topics that had not been touched by other speakers. I concluded from his remarks and explanations that he is a careful and shrewd business man, and that he understands Grange nature as well as human nature. These speakers were followed by some of our own, as far as time would permit. About 150 shares were taken. F. PARKER, Sec'y.

March 23d, 1875.

Ventura Grange.

EDITORS PRESS:—As an item of news from this part of California, we would state that District Deputy E. B. Higgins, on the 25th of February, installed the newly elected officers of Ventura Grange, No. 189, to serve the ensuing year. The various Granges throughout the county seem to be prospering.

We are needing rain in this county, especially for grazing land. Farming land seems to be in very fine condition; and we hear of but little complaint among the farmers; all complaints we hear are from stock men. Without more rain there will be raised about the same amount of grain this year as last. J. M. B.

San Buenaventura, March 10, 1875.

Petaluma Grange.

EDITORS PRESS:—On the 27th ult., Petaluma Grange gave the fourth degree to nine members; listened to an instructive lesson from G. W. Davis, organizing deputy of Santa Rosa; closed Grange work, and proceeded to discuss the "staff of life," prepared in many inviting forms. Then we renewed our youthful days with two hours of very pleasant dancing. I think the result will be a large addition to our numbers. F. PARKER, Sec'y.

Guenoc Grange.

EDITORS PRESS:—A meeting was held on the 27th of March by the Guenoc Grange, at Middletown, for the purpose of conferring the 4th degree, when the customary harvest feast was given which proved a complete success. The Grangers, with their families and friends turned out in good numbers. Thanks to our kind sisters, the tables were sumptuously provided; and as good Grangers, we one and all brought along cheerful faces as well as good appetites. Considerable pleasure was felt at the presence of Worthy Master Hamilton, of the State Grange, in our midst once more. At the conclusion of the feast he favored us with an account of his journey to and reception in the East, which was enthusiastically received. Further enjoyment was derived from the sweet music that was given us by our lady friends and sisters. We finally broke up late in the afternoon, feeling at peace with all men and with great hopes for the future of our noble order, and of our own Grange. The outlook for this section is most flattering,

crops are looking splendid since the last few days' rain and the mines which afford us a local market are developing rapidly and surely. Middletown is a thriving and busy little town, and is now of some importance in the county. W. C. GREENFIELD, Sec'y.

March 28th, 1875.

Santa Rosa Grange.

EDITORS PRESS:—The meeting of our Grange, on the 24th, with Brothers Hubbel and Haile, was a very interesting and pleasant one. The above named gentlemen, in their speeches, succeeded so well, to convince us of the necessity of having a commission house of our own in San Francisco, for the sale of our produce, and for the purchase of whatever may be wanted on a farm, that immediately over one hundred shares in the capital stock of the Grangers' Business Association were taken, and a committee was appointed to solicit subscriptions from those not present. There is no doubt about the success of this new enterprise, when the Grangers do their business through the agency of their own men, selected from among the most honorable and most capable in the Order. J. A. OBREEN, Sec'y.

Santa Rosa, March 25th, 1875.

El Dorado Grange.

EDITORS PRESS:—El Dorado Grange on the completion of a class of nine new members had a harvest feast, the 20th inst., and such a feast outside barbarians seldom enjoy. The good things our sisters prepared would astonish people of the Eastern States, but our sisters are proverbial for their good cheer. We had speeches from several members, and one by O. W. Clark, the great temperance lecturer, and the Worthy Master, of Placerville Grange, which were very appropriate and interesting. A number of sisters and brothers from the Placerville Grange were present, and all appeared to be highly pleased. The only regret seemed to be that these feasts do not come often enough. We expect to start a class of ten or twelve next week. We have nearly doubled our number of members in eleven months, and are going to try to have double our number again the coming year. With these facts and promises you will see that we are not entirely inactive. A GRANGER.

Diamond Springs, March 28th, 1875.

Ferndale Grange, No. 102, P. of H.

EDITORS PRESS:—Our Grange is doing well. We gave the third degree to a class of eight at our last meeting; we are very busy, but still the Grange is well attended. We have got the co-operation fever very hot, and I hope every member of the Order from California to Maine will catch it; I think it is our only salvation. I am glad the Press comes so regular, as we find it very instructive. Our sisters are receiving through the Press a few lectures on the follies of fashion. I think the brothers need lecturing very much in domestic economy. We have northwest winds with cold showers, but still favorable for this county. Please keep up posted on the potato rot. JAMES SMITH, W. L.

March 15, 1875.

[Nothing is now said concerning the potato rot. We shall endeavor to give the readers of the Press all available information on this, as in every other matter "in our line."—Eds. Press.]

Grangers and Agents.

Judge Morrison yesterday morning rendered an important decision in the case of Charles Green et als. against Daniel Meyer et als., to recover the value of 15,453 sacks of wheat of the weight of 2,410,018 pounds. There are several similar suits now pending between Meyer and the Grangers, involving a large amount of money. Judge Morrison said that the evidence in this case shows that the house of Morgan's Sons was doing business in the city of San Francisco, and engaged principally in receiving for shipment and sale in foreign ports wheat from the farmers who were known as Grangers; that, under the contract between this house and the farmers, this house undertook to ship grain belonging to the Grangers and to make certain advances.

The Evidence

Shows that the wheat was to be shipped in the names of the farmers—the owners. Mr. Green and others sent to Vallejo this wheat to be shipped on the vessel called the *Pride of the Port*. It having been placed on board of the vessel, a man by the name of Walcott, who was the agent of the house of Morgan's Sons here, procured bills of lading in the name of Morgan's Sons, and invoices in the same form and the same name, and a policy of insurance. Walcott took these invoices, bills of lading and policy of insurance to Daniel Meyer, and transferred them to him, whereupon Meyer made advances upon the wheat. Morgan's Sons

Filed to Pay

These Grangers the advances which they had agreed to pay them; and when the plaintiff ascertained what had been done in respect to this wheat, he went to Daniel Meyer and demanded of him the possession of the property. Meyer refused to deliver the possession, and hence this action.

The Law is Well Settled

In this State by the decision of the Supreme Court, in the case of Wright vs. Solomon, 19th Cal. Reports: "The factor cannot pledge as

security for his individual debt the goods of his principal consigned to him for sale."

What Walcott Did.

The evidence shows that this was a pledge made by Morgan's Sons, through their agent, Walcott, for money advanced by Meyer to Walcott for Morgan's Sons; that the money was appropriated by the house of Morgan's Sons to their own use. Morgan's Sons were factors; and under the authority of this decision of the Supreme Court they had no power, they had no right to pledge this property for the security of money advanced to them. It is shown by the evidence that Morgan's Sons were to advance one cent per pound upon this wheat, for the Grangers. But they had no right to pledge this property for the purpose of raising that money. That never entered into the contemplation of the owners of the property; and that right did not vest in Morgan's Sons in their relation of factor.

It is said that this rule has been changed by the Code; that the rule that the factor cannot pledge the goods of his principal as security for his own debt, has been changed by the Code; and the Court is referred in support of that proposition to section 2,991 of the Civil Code, which is in this language: "One who has allowed another to assume the apparent ownership of property for the purpose of making any transfer of it, cannot set up his own title to defeat a pledge of the property made by the other to the pledgees who received the property in good faith in the ordinary course of business and for value." The answer here is that Meyer did not receive this property in good faith. The Court does not intend to impute to Meyer any actual fraud; but he ingeniously attempts that he knew at the time he advanced this money to Walcott for Morgan's Sons, that the Grangers were the owners of the property; therefore he did not receive it in good faith within the meaning of the law.

Meyer's Position.

The next question arising in this case is, has this plaintiff a right of action in trover against Meyer for the conversion of this property? I can see no good reason why he has not. There was a conversion of this property to Meyer. The assignment to him of the bills of lading, etc., passed to him title to the property and operated as delivery, a constructive delivery at least; such delivery as only could be made under the circumstances. The property was at sea; and when Green, who was the owner of the property, demanded the possession of it from Meyer, it was Meyer's duty to redeliver the possession to Green. That would have been done by a reassignment of the bills of lading. But he refused to do that, and now says that he had already sent the bills of lading to Europe. The evidence shows that he had placed these bills of lading out of his power, and could not assign them. But that is no defence to this action. He was guilty of the conversion of the property, and the right of action exists in favor of the plaintiff.

Let judgment be entered in favor of the plaintiff for \$31,635 77, with legal interest from the 21st of October, 1874; judgment in gold coin.—Call.

Election of Officers.

SANTA MARIA GRANGE, No. 52, SANTA BARBARA Co. — S. G. Lockwood, M.; Wm. T. Morris, O.; H. C. Sibley, L.; John Tunnell, S.; John Hopper, A. S.; Mrs. M. Thornburg, T.; John Thornburg, C.; S. A. Fesler, G. K.; L. J. Nicholson, Sec'y; Mrs. Sarah Hostetter, Ceres; Mrs. A. Morris, Pomona; Mrs. J. Cook, Flora; Mrs. E. J. Hopper, L. A. S.; I. Miller, M. L. Miller, J. Thornburg, R. D. Cook and M. P. Nicholson, Trustees.

CORRECTIONS.—Since sending our new Directory to press we have been requested to make the following corrections: P. O. address of C. G. Carpenter, Master of El Dorado Grange, should be Diamond Springs, El Dorado Co. Secretary of National Ranch Grange, is E. T. Blackmer, instead of S. T. Blackmore as published in directory.

AGRICULTURAL NOTES.

ALAMEDA.

MISSION SAN JOSE, March 28.—The long looked-for rain has at last made its appearance. It commenced to rain at an early hour this morning and continued without interruption the whole day. The rain will insure a good grain crop in this vicinity.

AMADOR.

REFRESHING.—The Amador Dispatch of 27th ult. says: Our farmers and ranchers were treated to a very refreshing shower of rain last Wednesday night, something the crops were beginning to need very badly.

MORE OF IT.—A telegraphic dispatch dated Jackson, MARCH 28, says: It has been raining hard all day and still continues.

BUTTE.

NO RAIN.—The Butte Record of the 27th ult. says: The wind after blowing from the south for two or three days and piling the clouds up in masses, with every indication of rain, on Wednesday night suddenly shifted to the north, and in a few hours, every prospect for rain had entirely disappeared.

CALAVERAS.

THANKS FOR PLUVIAL DISPENSATION.—The Chronicle of the 27th of March says: Rain

fell Wednesday afternoon greatly benefitting miners and ranchers. A succession of smart showers continued nearly all Wednesday night, moisture enough falling to saturate the ground pretty thoroughly. More rain would be beneficial, but small favors in that line are thankfully received and further pluvial dispensations anxiously awaited.

COLUSA.

FINE LOOKING GRAIN.—The Chico Sun of the 27th ult. says: We came down from Chico on the east side of the river last Tuesday, and observed the crop looking remarkably well. Some grain was looking a little backward, but all that had been put in well looked splendid. One piece put in by Gil. Moulton on the red rolling land, just south of the Llano Seco Grant, deserves special notice. It was plowed, about eight inches deep last spring and sowed in the fall. On the adjoining land like it the wheat looks badly, but on this tract of three hundred and twenty acres, the grain stands over eighteen inches high, and is a bright green—looks like it would be good for forty bushels to the acre.

IRRIGATION.—The same paper has the following: We paid a visit this week to the farm of L. F. Moulton, about ten miles above town, and found a score of men and teams fixing the land for irrigation, or more properly for winter plowing. Mr. Moulton has laid off his farm into plots, according to the difference of level, and is throwing up levees around each plot, so as to turn the water in on the highest point and let it out on the tract lying next and lower at the highest place on that tract, and so on through. The levees are made wide, and the earth to make them taken from the top of the ground a considerable distance off, so as to waste but little if any land.

MUCH REJOICED.—The telegraph reports as follows: Colusa, March 28.—If an inch of rain fell throughout this county to-day and the farmers are much rejoiced thereat, as it is considered sufficient to insure a bounteous harvest.

CONTRA COSTA.

ADVANTAGE OF SUMMER FALLOWING.—The Antioch Ledger speaks as follows on this subject: One has but to drive through the valley to notice the difference in the condition and prospects of the various fields of grain. In every instance, the land that was summer-fallowed, if the work was properly done, will produce a good crop of wheat regardless of late rains. The grain upon all such land is tall, thick, of a healthy color, shades the ground, thus retaining moisture, and will mature.

A SQUIRREL EXTERMINATOR.—The Gazette of the 27th ult. tells about the introduction of a new squirrel exterminator in that locality: Mr. E. H. Lenox, of San Jose, and a former resident of San Ramon valley, has within the week past visited this county to introduce the Collins' patent cartridge for destroying squirrels and gophers. The composition of which this cartridge is composed generates deadly gases, in combustion, and has been found by the farmers in Santa Clara by whom it has been extensively employed, a very ready and effective means of destroying the burrowing vermin. The ingredients of the composition are chiefly blasting powder and sulphur compounded wet and made up in paper cartridges, an inch in diameter and three or four inches long. The cartridge is lighted, placed in the hole, where, after covering, it burns very slowly and gives off an immense volume of poisonous gas which is certain death to any creature within, if the escape of the gas is prevented.

THE RAINFALL.—The same papersays of the rain shower of the Wednesday previous: The rainfall at this point was twenty-five hundredths of an inch, but was less at Pacheco, and scarcely enough to lay the dust at Clayton. Small as was the rainfall, it was beneficial where there was any; and the episode, in the long rule of the northerly, dry winds, gives us some hope of further breaches that will bring needed refreshment to our fields, in the later spring time. Even now as we are about going to press, Friday afternoon, the wind is again in the favorable quarter, and we have every indication of more rain before another day.

LAKE.

COME AT LAST.—The Bee of the 27th ult. says: The long wished-for rain has come at last, its beneficial effects on the agricultural interest of the county cannot be estimated. We are now assured of a crop from the late sowing, and the earlier sown grain will be much benefited by it.

MERCED.

A LARGE PRODUCT.—The Argus of March 27th says: The grain crops throughout the county generally, look healthy and show but little signs of suffering for want of moisture. A few showers will yet be required to insure a full crop of winter-sown and volunteer grain, though we believe that the summer-fallow fields will yield reasonably good crops even if no more rain should fall before it matures. The area sown to grain is extraordinarily large and the product this year, even should the season from this time on prove dry, will be very great.

PLANTING FOREST TREES.—The Express of same date says: Mr. P. D. Wigginton informs us that he is now planting out forest trees of all kinds on his ranch on Owens Creek, about four miles southwest of this place. Mr. W. is going into the business quite extensively. He already has 160 acres planted and still continues to plant. This enterprise is a laudable



Intra, Mintra. Cutra, Corn.

[By the Rev. J. K. NUTTING.]

Ten small hands upon the spread,
Five forms kneeling beside the bed,
Blue-eyes, Black-eyes, Curly-head;

Blonde, Brunett—in a glee and a glow,
Waiting the magic word. Such a row!
Seven years; six years, five, four, two!

Fifty fingers all in a line
(You're are thirty, and twenty are mine),
Ten sweet eyes that sparkle and shine.

Motherly Mary: age of ten,
Even the finger tips again,
Glances along the line—and then—

"Intra, mintra, cutra, corn,
Apple-seed and apple-thorn,
Wire, briar, lumber lock,
Three geese in a flock,
Rubble, robbie, rabble and rout;
Y, O, U, T,
Out!"

Sentence falls on Curly-head;
One wee digit is "gone and dead,"
Nine and forty left on the spread.

"Intra, mintra," the flat goes,
Who'll be taken, nobody knows,
Only God may the lot dispose.

Is it more than a child's play?
Still you sigh and turn away,
Why? what pain in the night I pray?

Ah, too true, "At the fingers fall,
One by one at the magic call,
Till at last chance reaches all.
"So in the fateful days to come
The lot shall fall in many a home
That breaks a heart and finds a tomb;

"Shall fall, and fall, and fall again,
Like a faw that counts our love but vain,
Like a Fate, unheeding our woe and pain.

One by one—and who shall say
Whether the lot may fall this day,
That calleth these dear babes away?"

"True, too true. Yet hold, dear friend;
Ever doth the lot depend
On him who loved, and loves to the end;

"Blind to our eyes the flat goes,
Who'll be taken no mortal knows,
But only Love will the lot dispose.

"Only love, with his wiser sight;
Love alone, in his infinite might;
Love, who dwells in eternal light."

Now are the fifty fingers gone
To play some new play under the sun—
The child's fancy is past and gone.

So let our boding prophecies go
As childish, for do we not surely know
The dear God holdeth our lot below?

A Chapter From that Kansas Campaign.

[Written for the Press by Mrs. C. I. H. NICHOLS.]

MY DEAR MOUNTAIN? With all my heart! The soldier who has marched and counter-marched, may-hap bled for his country or his king, is proverbially happy in "fighting his battles o'er again." And why should not a woman, who has led an apparently forlorn hope in behalf of bread and babies, homes and culture, and without depleting the State of blood or treasure, achieved success—be glad to give a chapter alike suggestive of what Kansas enjoys and California needs?

But where shall I begin, where end the details of a campaign rich in genius and racy incidents, and in its far-reaching results, parallel with the revolutionary declaration of our fathers of which it was an outcropping?

Least I should not have space for the acts behind the scenes I will begin with the results of the Kansas woman's campaign for constitutional rights.

And first its success, as comprising what Mary Mountain terms, "a vantage ground of privilege in advance of what had been obtained in older communities" was as follows:

1st. An educational range commensurate with the educational provisions of the State.

The schools, colleges or other institutions of learning, established or fostered by the State, are prohibited from making any distinctions on account of sex. Under this provision of the Constitution of Kansas, her daughters and sons are alike eligible to the desk of the pulpit or the chair of the President; and competing in the same classes for honors and awards, they imbibe broader views of culture and juster estimates of each other.

Students and teachers are alike pleased with the arrangement, and a cordial people are making the co-education of the sexes a glorious success.

2d. The right to vote in all District School matters.

Women twenty-one years of age, have an equal voice with men, in the organization and conduct of the common schools of the State. In the building and furnishing of school houses, and in all matters of appropriation and expenditure and government, the women of a district have an equal voice with its men. They may be elected to any office for which they are qualified, from State Superintendent of Instruction to Director, Secretary, or Treasurer of the District Board. It is not uncommon for the Board to be composed entirely of women. And I venture to say that not in all Kansas can there be found an intelligent man who would advocate a return of the schools to their former motherless status. And while women—legally equipped for their natural responsibilities as educators of youth—have gained immeasurably in proper self-respect, and culture, and range of mental discipline, by the possession and exercise of these rights, they have also gained in the respect and confidence of men of all classes. Legislatures elect them to clerkships, and the churches of all denominations, send them as delegates to church associations and other religious convocations.

3d. Recognition of the great humane truth, that mother and child stand to each other in the relation of God joined, and therefore should not be put asunder by man.

By constitutional provision, the mothers of Kansas have an equal right with the fathers to the custody and control of their children. No Kansas legislature can give pre-eminence of rights to the fathers as against the mothers. Kansas widows cannot be bereft of their children by a law giving the father a right to "determine by will the guardianship of children living at his death or born afterward," as is done in more than one-half the States of the Union.

Under this provision sympathizing friends can assist a mother in retaining possession of her children without making themselves liable to damages or a term in the penitentiary, as is the case in other States—California, I think, included—at the suit of an irascible father, or of guardians appointed by him. And a Kansas mother, in such case, instead of being obliged to appeal to Courts made up of men—as under laws that give the sole custody of the child to the father—can nurse her babies in the quiet of some friendly home and let the father "show cause," if he can, why it fits mere his right than hers to care personally for the children, who, by common consent are "the peculiar responsibility of the mother." The propriety of this arrangement is more apparent in view of the legal fact, the fathers "hold the purse strings"—that is, the earnings and savings constituting the "estate in common,"—while few mothers hold in their own right wherewith to fee attorneys and court officials. Not a week passes that we do not see here, in California, the no right of the wife and mother revealed in petitions of woman to the courts, for custody of children and "alimony" in cases of desertion or divorce; or in the advertisement of some "Aborns," whose wife—after years of faithful service, as housekeeper, nurse, seamstress, "and maid of all work"—has "left his bed and board," so destitute, that he deems it necessary to cut her off from using his credit in procuring the necessities of life elsewhere.

In addition to the constitutional provisions enumerated, and which were adopted by Kansas in advance of older States—a provision was inserted securing to the wife possession and control of her own property and earnings—general in its terms and broad enough to cover equal rights of possession and use, of the estate in common, or community property," as termed in this State.

Having ended the chapter of privileges won, I leave for another chapter brief mention of members of the Conventions, whose names have become historical, with interesting incidents and suggestive material gathered from the forum or field.

Potter Valley, March, 1875.

IMPORTANCE OF EDUCATION.—Chancellor Kents says: "Without some provision made in youth for the sequel of life, children of all condition would probably become idle and vicious when they grow up, either from want of good instruction and the means of subsistence, or from want of rational and useful occupations. A parent who sends his son into the world uneducated, and without skill in any art or science, does great injury to mankind as well as to his own family, for he defrauds the community of a useful citizen and bequeathes to it a nuisance. This parental duty is strongly inculcated by writers on natural law. So you was so deeply impressed with the force of the obligation that he even excused the children of Athens from maintaining their parents if they had neglected to train them up to some art or profession."

A PRETTY ORNAMENT.—Mrs. J. J. Kidd says, in the Western Farm Journal: "Take a goblet with the foot or stem broken or cut off so that the bowl will be perfect; take coarse red flannel, the redder the better, stitch it in a lay around the bowl or goblet, so as to cover it completely on the outside; dip it in water, so as to wet it thoroughly, and then roll it in flaxseed; the seed will stick in and on the flannel; be sure that the seed is distributed evenly; then stand it on its mouth, or large end, in a saucer or small plate; put water in the small plate or saucer, and renew or add to it as it absorbs. Never let the vessel get dry, nor suffer it to chill or freeze. It can and will grow in any part of the room, and will be a deep green with red ground."

About Those Hair Snakes.

Our Tentonico friend, whose letter we give below, appears to be very much exercised about the account which we recently gave of the origin of "hair snakes." He insists that that the common idea that they originate from hairs is the correct one. Well, we don't feel like entering into an argument with "Hans," just now; but we can't help thinking that the "lager-bottle" had very much to do with the production of the snakes which he thinks he saw:

MESSRS. EDITORS MIT RURAL PRESS:—I sees von leetle story in your paper, about de 'orse 'air snake, ant I believes it not. I dinks I knows petter a-h dat. Ven I vas von leetle poy, I pulls 'airs from de tails of de 'orses, ant I puts dem in vater; and den I puts de vater in sunshin, ant in dree, vour days dem 'airs vas all shnakes. Ant dot odor fellow, mit de schape glas, vot says dey ish von leetle pug, tells von big lie. I knows petter ash he does, apout dem shnakes. Ven I marries mine frau, Katherena, dot vas in Garmany, ant den ve comes to California mit odor peples, to ged-r de go'd vot dey say vas plenty, ant dot i h von oder pig lie; for I works like de tyfel, dree, fife years ia de mines, ant I makes not much monish. Den mine frau gets mad, and she say, "she stay not longer in de mines;" ant den I say, "vot we do?"

Ant she say, "ve dakes our leetle poy's ant girls ant de papy, ant ve goes down mit de plaius, ant vo row veat and parley," ant I say, "very goot." Ant so ve comes down mit de plaius, ant ve pilds von leetle house, ant I plow, ant I sows de veat ant de parley; ant den in dree, vour years ve pilds pigger house, ant den Katherena puy a carpet and puts it on the floor. Von day, ven I comes in mit dirty poots, she say, "you ish dirty tyfel, Hans. Vot for you come mit dirty poots on de new carpet, you ish de same von hog." Ant den she gips me von, two, dree blows mit de heesino sthalk, ant den I gets msdder ant madder, ant I draws away mine shnake pipe; ant I say, Katherena, "you ish de very tyfel, ant de 'air of your head ish nothing but shnakes." Ant den I goes out mit de door, ant I says nothing more.

Ven ve goes to ped dot night, Katherena says, "Hans, vot for say mine 'air vash shnake-;" ant I say, "Katherena, your 'air ish shnakes, ant I will prove it;" ant den she gets msd, and she kicks mine does, vot has de corns; ant dot makes me madder as never vas. And in de morning I pulls von lot of 'air from Katherena's head, ant puts it in de vater, ant in dree deys dey vas all shnakes; ant ven I shows dem shnakes to Katherena, she say, "Hans, you ish de tyfel. You makes mine 'air inter shnakes, ant I sthay mit you no longer. Den you make de tyfel's madder of me." Ant I say, "no, no, Katherena. You goes not away, and I tells you all apout it." Ant I tells her all apout it. And now I tells you, Mr. Editor, mit RURAL PRESS, case I dinks you knows not much apout dem shnakes.

Now you see it ish dis vay: Ven you pulls dem 'airs, dey comes from de root, ant dere ish leetle tubes in de 'airs, vot draws de manure from de hesl or de tail, de same ash parley does from de ground, and dey draws in de vater, ant den de sun shines hot, and de vater boils in de 'airs, ant poila not on de outside; ant den py much poiling on de inside, (vat you call it), life ish gendered. Dot ish it, ant dot fellow mit de schape glass dolls pig lies. Yonrs drily,
HANS LAGERBOTTLE.

DOLL'S FURNITURE.—Writes a Paris correspondent: "Furniture and utensils for doll houses are in great request this winter, and a large wholesale house that is exclusively devoted to this branch of production has done a larger business this year than ever before. This house employs sixty hands, male and female, all the year round, and turns out this class of toys to the amount of £80,000 per annum. The cheapest set of furniture turned out by this firm consists of a box of deal, a glass decanter, two dishes, and four plates of china, two glasses, a pewter dish cover, two knives, forks and spoons; the whole for three sous. From this point the sets mount up by regular gradations until they reach the absurd price of £240; no fewer than six sets of dolls' house fittings have been sold this winter by this firm at this price. These miniature articles, carefully arranged in cases of morocco leather, consist of every variety of object in silver, silver gilt, fine porcelain, sparkling crystal, delicate leather, costly woods, ivory, bronze, silk, velvet, etc., the whole being of the most exquisite workmanship. The same house sells the highest class of dolls, with their trousseaux, at the modest price of £120 each.

THE SORROWS OF OTHERS.—There is no question but habitual cheerfulness is a great blessing, but when cheerful people are lauded let it be remembered, as a general thing, they are no more to be commended for than a person for the possession of a pair of beautiful eyes. Cheerfulness is usually a matter of health and constitution. When it is not the person deserves credit; for an invalid or nervous person, a very sensitive person, easily affected by atmosphere and other influences cannot, without great effort, be uniformly cheerful. Many people are cheerful because they are apathetic. The sorrows of others, not being their own, are easy to bear. We do not wish to depreciate social sunshine; but let us not forget that there are very sweet flowers that flourish and give out perfume only in the shade, and at intervals.

A Distracted Mother.

One of the strangest and most horrible of sensational incidents took place the other day at Puteaux, France. A party of children who were playing in the environs discovered floating in the air and partly entangled amid the branches of a tree a white parcel upborne by means of some twenty or thirty little red toy balloons, which were attached to it. The attention of the police being called to this singular object, it was brought down and the package opened, which proved to contain the corpse of a new-born infant. Investigations into the matter brought to light the following facts: The child was that of a poor toy maker and his wife; just after the confinement of the latter the husband had suddenly died, and all his household goods and chattels had been seized for rent. The unhappy woman was driven mad by this accumulation of misfortunes; she killed her infant, and then went out and threw herself into the river, leaving behind a written statement in which she declared intention of committing suicide, and said that she "had gotten her baby all ready to go up to Heaven." A sadder tale with a stranger termination it would be hard to find. The toy balloons evidently had formed part of the dead husband's stock in trade.

RATHER MIXED.—This is the way a Frenchman reported the Brooklyn scandal: "One Grand Ecclesiastical Scandal—Great Excitement in New York and Brooklyn—Three Clergymen in Moosh Tronbell—Mons. Montling, Tiltong and Beechare have One Grand Controverser; Mons. Montling is ze pas'or of ze Pleemoz church, of New York, Discovered by Columbus, Ohio, in 1472. Mons. Montling is accose of taking ze libertee wiz ze wife of Theodore Beechare, who is Mrs. Harriott Beechare Stowe, ze mozara of Onklo Tom, ze blind piaist. Mons. Beechare also is accose of ze impopere libertee wiz Mrs. Tiltong, daughter of Susan B. Anthony, ze sistere of Mars Anthony, who made love wiz Cleopatra. Mons. Tiltong have caused ze seaparashong of Mons. Beechare and his wife. Sue resides in ze city of Brooklyn, while he has moved into Elizabeth, New Jersey. Ze congregashong of ze Pleemoz Rock church will not permit Mons. Montling to presch never from zat poolpet. Ze greatest excitement piveil." Our French friend appears to understand this matter as clearly as any one can.

A PROFESSOR'S OPINION.—There is an art never taught in our schools, and too little studied or practiced in the family, which in woman's hand would be a scepter of sovereign power—a wand of talismanic influence. I refer to the art of conversation. It is a fine art, yet second to none in usefulness. Like other aesthetic arts, it was carried to a great perfection by the Greeks—a very good reason, by the way, for woman's studying the language of Socrates and Plato. In modern times it has been cultivated by the French beyond any other nation, and it is one of the chief charms. If I were president of a woman's college, I think I should make it a department with an accomplished professor at its head, and assign it a place in the senior class, although to be studied and cultivated more or less by the other classes and through the entire collegiate course.

HOW TO GET OUT OF BED—HOW TO GET ON IN LIFE.—Getting up in a cold room to make a fire is like getting up in life. If you crawl timidly out of bed, go on tip-toe to the stove, and allow shivers to get control of you before the kindling starts, your fire will probably be a failure, and you will half freeze to death in the operation. But if you jump out bravely, bustle around, pull on your clothes, knock over a chair or two, and pitch in the stove-wood, you will probably be too warm by the time the fire gets to burning and have to open a window. So in life. Attack it timidly and you will fail. Grapple with it, hurry up things, stir around, conquer fortune, and you will be a success.

HER FIRST DINNER.—A story is told of a newly-married couple who commenced house-keeping with a turkey dinner. The wife took great pride in having it all ready when John came home. John came, and shortly after the young husband, with a very pale expression of countenance, was seen to stride across the back yard and throw a whole turkey over the fence. The inexperienced housewife had roasted it without removing the interior works, and it was all together too much turkey for him.

GOT ALL HE WANTED.—An old farmer purchased some sweet oil in a drug store recently, and, being asked if there was "nothing else," he laid several packages on the counter, held up a hand with several strings tied on the fingers, and said: "Let's see! That red string is for the bar soap; that rug is for a broom; that blue cord is for a calico dress; that drees braid means four pounds of sugar, and this other string means sweet oil. No—nothing more!"—Detroit Free Press.

A SINGULAR WILL.—Mr. Joshua Bailey, who died recently at Cohoes, New York, left an estate worth \$3,000,000, which he disposed of in the most original way. Having no children he bequeathed two-thirds of his property to that one of his three nephews who should have the largest number of children at the time of his uncle's death. The fortunate man was W. W. Bailey, of Waverley, Iowa, a poor painter with five boys.

Friendship and Old Age.

As years steal upon us, and we come to tread the downward way towards the narrow house, our ideas of friends and friendships undergo a change, which change we may not recognize very readily, but still in moments of reflection, we are conscious that it has occurred. As we look back upon the long route we have travelled, we can but think of the "troops of friends" who at one time or other were the companions of the journey, and we ask, "Where are they? What has become of them all?" Some are away in foreign lands, and severed from us forever; some we have estranged from us, it may be by our own faults and shortcomings; some have cast us off, having themselves stepped higher up in the social scale; and some we have ourselves designedly relinquished, not we trust, because they have not kept pace with us in the worldly race, but either because they were such ties as we ought never to have formed, or because through vice or the force of temptation they have fallen too low. Then there are one or two, perhaps, who were in times past the treasure and glory of our life, whom one fatal mistake wrenched from us in an evil hour, and ever since we have stood aloof, like cliffs which had been rent asunder, both of us, perchance, retaining the scars which neither frost, nor heat, nor thunder, shall wholly do away. It is such remembrances as these which, in the autumn or winter of our days, make us wary and watchful over the too scanty remainder of our life's friendships. Gladly, if we could, would we bridge over that dreary sea which flows between us and the alienated friends of past years; but that cannot be done—never was done yet in human experience—and so, accepting wisdom from the past, we guard the love that is left to us all the more jealously. We come to hate all quarrels and resentments, as the folly and absurdity, and dreary results of them come home to us in those lone hours when, regretfully confronting the past, we can review the game of life and recall with bitterness the many false moves we made and the sorrows they entail upon us. Well for us that all is not lost—that friendly hands yet aid us in doing and suffering what has yet to be done and suffered, and friendly hearts yet flow with the sympathy we have learned to prize at its just value.—*Leisure Hour.*

Factories vs. Farms.

Manufactories are magical in their working. On the border of the Connecticut valley lies a territory, rocky and wild, whose people twenty years ago were, like their fathers of happy memory, poor and blessed with many children. The hungry raven passed it hastily by, and even the wild fox refused to make its hole in its hillside. Through this little valley flowed a tiny brook, which bore away to the Connecticut river, the surplus rain and ill-spared soil, the loss of the latter causing the rock surface to spread out wider year by year. A Maine fellow chanced that way, and after frequent ebullitions—not from the brook, but at the grocery—told the gaping farmers the brook was their fortune. Some giggled at this; others shook their heads—all agreed that he was mad or a fool. Licensed at their verdict, he mounted a whiskey barrel, and gave them a most sensible talk about co-operative unions, utilizing of water-power, etc. When he had ended his speech, they wished they hadn't laughed. They went to work; the brook was wide; they dammed it above the village. The farmers pulled down their old blue stockings, and put all their hard money into the enterprise—some fifty, some a hundred, and some a thousand dollars. They built their factories and elected officers. A year or two ago we passed that place. Twenty-one factories dot that little brook, five thousand people dwell about or in that village, which formerly contained a hundred souls, and that community is one of the wealthiest and most intelligent to be found in the nutmeg State.—*Iron Age.*

As it has been and is now, so it shall ever be, that the sphere of woman will be determined by the kind and degree of development to which she shall attain. Like man, she need know no other limitation; but when we look around upon the great industries of life, mining, engineering, manufacturing, commerce and the rest, and consider how little direct agency women had in bringing them to their present stage of progress, we are compelled to believe that she must not look toward direct competition with man for the best unfolding of her powers, but rather, while continuing to supplement him, as he does her, in the varied interests of their common life, that their future progress, as in the past, will consist mainly in the development of a higher character of womanhood through the selection and consequent extension of those traits peculiar to her own sex.—*Frances Emily White.*

A COOK'S BLUNDER.—A lady on the east shore of Maryland happened to make sausage meat and mince pies on the same day. Being called to the parlor to receive company, she returned to find to her sorrow that the cook had put the wine, spice, sugar and plums into the sausages, while the mince meat received its complement of sweet herbs, salt and pepper. The lady magnanimously bestowed the whole stock on the poor, since which she has never been troubled by the sick and demoralized panpers who were her victims.

YOUNG FOLKS' COLUMN.

Whistle and Hoe.

There's a boy just over the garden fence,
Who is whistling all thro' the live-long day;
And his work is not just a mere pretence,
For you see the weeds he has cut away.
Whistle and hoe,
Sing as you go,
Shorten the row
By the songs you know.

Not a word of bemoaning his task I hear,
He has scarcely time for a growl, I know,
For his whistle sounds so merry and clear,
He must find some pleasure in every row.
Whistle and hoe,
Sing as you go,
Shorten the row
By the songs you know.

But then while you whistle be sure that you hoe,
For if you are idle the briars will spread;
And whistle alone to the end of the row
May do for the weeds but is bad for the bread.
Whistle and hoe,
Sing as you go,
Shorten the row
By the songs you know.

BAD BOYS MAKE BAD MEN.—An aged sea captain, who had spent a long life upon the ocean, said to a lady: "On ship board I can tell in a very short time what any sailor was in his boyhood." It was because "the boy was father to the man." He added, "I find invariably that a bad boy makes a bad man." When he saw a reckless, profane, vicious "son of the deep" he at once concluded that he was little better when a lad. Now this is just what might be expected. It is just what is seen in other things. Poor wool or cotton makes poor cloth. Poor cloth makes a poor coat. Poor farms produce poor crops. Poor timber makes a poor house. And so wicked children make wicked men and women.

It is said that the Emperor Nero, of Rome, when a little boy, delighted to torture and kill flies, and would pursue the little creatures hour after hour to pierce them and see them flutter and die in agony. As he grew older he exhibited the same cruel disposition towards men. When made Emperor he advanced in cruelty to a fearful rate; killed his own wife, and ordered his mother to be assassinated. Nor was this all. He finally ordered the city to be set on fire, just to see how it would look, and when it was burning, he seated himself upon a high tower and played upon his lyre. Was this strange? Is not a cruel boy likely to make a cruel man? Killing men in manhood is only a further development of killing flies in childhood.

BE CAREFUL WHAT YOU FILL UP WITH.—A boy returned from school, one day, with a report that his scholarship had fallen below the usual average. "Well," said the father, "you've fallen behind this month, have you?" "Yes, sir." "How did that happen?" "Don't know, sir." The father knew, if the son did not. He had observed a number of cheap novels scattered about the house, but he had not thought it worth while to say anything until a fitting opportunity should offer itself. A basket of apples stood upon the floor, and he said: "Empty those apples and take the basket and bring it to me half full of chips. And now," he continued, "put those apples back into the basket." When half the apples were replaced the son said: "Father, they roll off; I can't put in any more." "Put them in, I tell you." "But father, I can't put them in, I tell you." "Put them in! No; of course you can't put them in. Do you expect to fill a basket half full of chips and then fill it with apples? You said you didn't know why you fell behind at school, and I will tell you. Your mind is like that basket; it will not hold more than so much, and here you have been, the past month, filling it up with rubbish—worthless, cheap novels." The boy turned on his heel and whistled, and said, "Whew! I see the point."

RUSTIC WORK.—Mrs. Jennie G. writes: "My little boys are just as fond as their sisters of what they call rustic work. In the summer, when out in the fields and woods, they are sure to find treasures. Scarlet berries, pretty bits of rock or pebbles, deserted birds' nests, fanciful growths of fungi and knots of decayed wood, which often when varnished make the prettiest bracket ornaments imaginable. They make miniature rock work, and little Swiss chalets of sumach wood, and sometimes of pasteboard covered with moss. I think that in 'indoor' weather they rather out-do the girls in this department of industry; but when coasting and skating time comes, they are no longer to be counted upon; which I suppose is just as it should be. Only I do not like them to tempt the girls to share their ruder and more dangerous sport."—*Prairie Farmer.*

A SCHOOL GIRL'S MISTAKE.—A teacher in the Utica Advanced School recently wrote upon the black-board one of the lessons of the day, to be written out by the young lady pupils, as follows: "Give the names of five bays, and describe one of them." One of the young ladies evidently misunderstood the lesson, for she named five boys. And the description of one of them was given, he being spoken of as short in stature, with red curly hair, large head, plump hands, goodly-sized feet, etc.

BENJ. FRANKLIN said: "The eyes of other people are the eyes that ruin us. If all but myself were blind, I should neither want a fine house nor fine furniture."

GOOD HEALTH.

Trichina.

MESSRS. EDITORS:—In your issue of a fortnight ago you gave us a long and interesting dissertation on trichina and its fatal effects on the human system. Now could you not kindly inform us whether there is no cure or no preventive for this alarming evil save in a total abstinence from all porcine nourishment? Are we to infer from your article that we must banish the very palatable dish of ham and eggs from our table? Shall we eschew the time-honored dish of pork and beans, so dear to the heart and stomach of every New Englander—and must pickled pigs' feet and souse be tabooed forever? Or are we to understand that it is only in fresh pork, or that which has been but partially cooked that this terrible parasite exists? In short, does no ordinary preparatory process kill the trichina?

Yours Respectfully,
G. A. HAMILTON.

Virginia City, March 22.

ANSWER:—The trichina will easily succumb to a heat of 212 degrees F. Hence, no danger need be apprehended from pork which has been thoroughly cooked.

THE TOOTHACHE.—A correspondent says that after suffering excruciating pain from this ache, and having tried in vain to obtain relief, Betty told me a gentleman had been waiting some time in the parlor, who said he would not detain me one minute. He came—a friend I had not seen for years. He sympathized with me, when I told him how sadly I was afflicted.

"My dear friend," exclaimed he, "I can cure you in ten minutes." "How? how?" inquired I; "do it in pity." "Instantly," said he—"Betty, have you any alum?" "Yes." "Bring it, and some common salt." They were produced; my friend pulverized them, mixed them in equal quantities; then wet a small piece of cotton, causing the mixed powders to adhere, and placed it in my hollow tooth. "There," said he, "if that does not cure you, I will forfeit my head; the remedy is infallible." It was so. I experienced a sensation of coldness on applying it, which gradually subsided, and with it the torment of the toothache. Easily tried.

DOCTORS.—There is no danger that the physician will ever become a useless member of society, for the simple reason that instead of decreasing the share of his duties, the culture of preventive medicine—of the knowledge of how to prevent diseases as well as to cure them after they are engendered—must tend to amplify and enlarge the same. His will be the task, not merely to recognize the forms of ails and endeavor to combat their effects, but to look into the future and, through the aid of all circumstances of the present, predict possible evils and point out means of defense. Add to this the constantly increasing knowledge of drugs and their properties, of the wonderful relations of mind and body, of the nature and habits of disease, which science is rapidly developing, and the physician of the future has before him not a narrower but a far wider field for the exercise of his skill.

FOR DIPHTHERIA.—A Mr. Greathead, of Australia, communicates to the public a very effective remedy for diphtheria. It is simply the use of sulphuric acid, of which four drops are diluted in three-fourths of a tumbler of water, to be administered to a grown person, and a smaller dose to children, at intervals not specified. The result is said to be a coagulation of the diphtheritic membrane, and its ready removal by coughing. It is asserted that where the case thus treated has not advanced to a nearly fatal termination the patient recovered in almost every instance.

AVOID MARBLE-TOP TABLES.—According to the *Herald of Health* marble-top tables are to be avoided. It says: "They are cold, and rapidly absorb the heat and vitality of the body, robbing it of its life. We have heard of one invalid whom the doctor could not cure until one day he noticed she used a marble stand, and suspected it had something to do with her ill health. So he forbade her touching it. Soon she was cured. We know healthy people who feel the twinges of pain in a shoulder by sitting near one. They are handsome, but unhealthy for all that."

DISINFECTANT AND MOUTH-WASH.—A weak solution of permanganate of potash will destroy instantly any taint from diseased teeth or imperfectly cleaned plates, and should always be used to rinse spittoons with in hot weather. It is cheap, satisfactory, almost tasteless, not poisonous, and quite free from smell. It may be satisfactory to some to know that this will remove the taint of smoking from the breath if used as a mouth-piece.

TO CURE HOARSENESS.—When the voice is lost, as is sometimes the case, from the effects of cold, a simple, pleasant remedy is furnished by beating up the white of an egg, adding to it the juice of a lemon, and sweetening with white sugar to the taste. Take a teaspoonful from time to time. It has been known to effectually remove the ailment.

DOMESTIC ECONOMY.

Fish as Food.

Fishes yield an almost endless variety of food for man. They furnish a much greater number of edible genera and species than any other class of the animal creation, and from them some nations derive their chief sustenance. The inhabitants of the most northern parts of Europe, Asia and America, where but few alimentary plants are found, are compelled to live almost exclusively on fish.

The great bulk of the soft part of fishes consists of voluntary muscles forming the flesh, which are disposed upon the sides of the spinal column—four series on either side. They are soft, pelucid and but little permeated with blood. Fish flesh contains more water than the flesh of either quadrupeds or birds. In many fishes the flesh is mixed with, or covered by, oily or fatty matter, as in the salmon, the herring, the sprat and the eel. This is more abundant in the thinner or abdominal parts than in the thicker or dorsal portions. Hence, the thinnest part of salmon is preferred by epicures. After spawning, the quantity of this oil is greatly diminished.

In the cod and many other fishes, the muscles are arranged in more or less wedge-shaped masses, called flakes, which, after cooking, readily separate from each other, owing partly to the contraction of the muscular fibre, and partly to the solution of interposed ligamentous tendinous matter. In the flat or eel-shaped fishes, the flesh has rather a fibrous than a flaky arrangement. The flesh of the whiting, the cod, the haddock, the sole, the flounder, the turbot and other species, is white; hence, they are termed white fish. The flesh of fish is in the greatest perfection for food at the period of the ripening of the milt and roe. It is then said to be in season.

Fried Meats.

The frying of meat is most unwholesome and unprofitable for the eater, however convenient it may be for the cook. It robs it of its juices and hardens its texture. The extreme heat of the fat not only burns the outer layers of the meat, so as to injure their value for nutritive purposes, but also changes the chemical conditions of the fatty acids, giving rise to products which obstruct the breathing and causes tingling of the eyes and nose of the cook, and which are more or less harmful to the eater. The peculiar flavor of the meat is in a great measure lost by frying, and for it is substituted the flavor of the fat in which it is cooked. This fat permeates the fibers of the meat in such a way as to render them less soluble in the watery fluids of the mouth and stomach, and thus causes difficult digestion.

It is to be feared that our cooks have a fatal facility in the use of the frying pan. It is the rudest mode of preparing meat, and so inferior to every other in its result, that we may reasonably hope that the improvement in this respect will continue. Broiling on a gridiron over a quick fire costs a little more time and trouble, and very likely fuel also; but by this process the juices of the meat are sealed up, to a certain extent, instead of being evaporated, and the nutritive value thereby much increased. The superiority both of flavor and digestibility which broiled meat possesses are perfectly well known. The general substitution of a gridiron for the frying-pan in the hasty cooking of meats, would be most advantageous to health.—*Herald of Health.*

Apples in Imitation of Ginger.

To three pounds of very hard apples take two pounds of loaf sugar, and a quarter of a pound of best white ginger. Put these in layers (having first sliced the apples in eight pieces and cored them) alternately in a wide-mouthed jar. Next day infuse an ounce of white ginger, well bruised, in about a pint of boiling water; let it stand till the next day. Then put in the apples that have been two days in the ginger. Simmer slowly until the apples look clear. Take great care not to break the pieces.

The following is another recipe, which we find in the *London Garden*: For 4 lbs. of apples take 4 lbs. of sugar, 1 quart of water, and 2 oz. of best essence of ginger. First pare the fruit, cutting out every particle of core; then shape it to resemble the small kind of preserved ginger. Boil the sugar and water nearly twenty-five minutes, until it is a nice syrup, then put in the apples; be sure not to stir them much; add the essence of ginger (if 2 oz. be not sufficient, add more). It will take nearly an hour to boil, until it becomes yellow and transparent. There will be some pieces that will not clear; put them by themselves, as they will spoil the look of the rest. It will require skimming.

PREPARING POTATOES FOR FOOD.—First, in whatever manner they are cooked, it should be done rapidly—roasted, boiled or fried. Nothing is so soon spoiled by slow cooking as the potato, and should be removed from the fire and placed upon the table when done. Potatoes that are mashed or baked on a dish, are perhaps an exception. The potato may be boiled, mashed and passed through a sieve, and dried upon dishes, and put away for seasoning stews, soups or hash, and are nearly as good as when fresh, for such dishes.



PUBLISHED BY
DEWEY & CO.
A. T. DEWEY, W. B. EWER, G. H. STONG, J. L. BOONE
PRINCIPAL EDITOR.....W. B. EWER, A. M.

Office, No. 224 Sansome street, Southeast corner of California street, where friends and patrons are invited to our *SAN FRANCISCO PRESS*, Patent Agency, Engraving and Printing establishment.

Subscriptions payable in advance.—For one year, \$4; six months, \$2.25; three months, \$1.25. Remittances by registered letters or P. O. orders at our risk.

Advertising Rates.—1 week. 1 month. 3 months. 1 year
Per line.....25 .80 \$2.00 \$5.00
One-half inch.....1.00 \$3.00 \$7.50 24.00
One inch.....2.00 5.00 14.00 40.00

Large advertisements at favorable rates. Special or reading notices, legal advertisements, notices appearing in extraordinary type or in particular parts of the paper, inserted at special rates.

No Quack Advertisements Inserted in these columns.

SET UP CLUBS FOR THE RURAL PRESS.

OLD SUBSCRIBERS and other reliable persons are authorized to get up clubs of five or more subscribers for this paper at \$3 per annum for each name. Our terms for all subscribers are cash in advance. Postage will be prepaid by us after January 1st, 1874. The papers will be addressed singly to each individual. Regular subscription price \$4. Sample copies free. Let those who will work for the Rural Press in mind that they will confer a lasting benefit on new subscribers, besides improving their own talents by business practice. Try your hand and report at once. We offer all a chance. You do not know what can be done till you try!

SAMPLE COPIES.—Occasionally we send copies of this paper to persons whom we believe would be benefited by subscribing for it, or willing to assist us in extending its circulation. We call the attention of such to our prospectus and terms of subscription.

SAN FRANCISCO:
Saturday, April 3, 1875.

TABLE OF CONTENTS.

EDITORIALS AND GENERAL NEWS.—An Agricultural Implement Warehouse; The Fruit Dryers; Our Reclaimed Tule Lands, 209. Alfalfa Outside of California; Good Crops Insured; Starch, 216. Foxes, 225. Patents and Inventions, 228.
ILLUSTRATIONS.—An Agricultural Implement Warehouse, 209. The Orchard Oriole, 217. California Fox; Economy of the Vegetable Kingdom, 225.
CORRESPONDENCE.—Central California; More About Los Nietos, Los Angeles County; Manufactories of San Jose; San Jose Machine Works, 210. Mohair; Further from Mussel Slough Country; Some Big Figures from Humboldt County; From Shasta County; From Borden, Fresno County; Description of Hungry Hollow, 211.
PATRONS OF HUSBANDRY.—Progress of the Patrons in California; New Granges; Meetings; Etc., 212-13.
HOME CIRCLE.—Intra, Mintra, Cutra, Corn (Poetry); A Chapter from that Kansas Campaign; Importance of Education; A Pretty Ornament; About those Hair Snakes; Doll's Furniture; The Sorrows of Others; A Distracted Mother; Rather Mixed; A Professor's Opinion; How to Get Out of Bed—How to Get on in Life; Her First Dinner; Got All he Wanted; A Singular Will, 214. Friendship and Old Age; Facories vs. Farms; A Cook's Blunders, 215.
YOUNG FOLKS' COLUMN.—Whistle and Hoe (Poetry); Bad Boys Make Bad Men; Be Careful what you Fill up With; Rustic Work; A School Girl's Mistake, 215.
GOOD HEALTH.—Trichina; The Tooth Ache; Doctors; For Diphtheria; Avoid Marble-top Tables; Disinfectant and Mouth-Wash; To Cure Hoarseness, 216.
DOMESTIC ECONOMY.—Fish as Food; Fried Meats; Apples in Imitation of Ginger; Preparing Potatoes for Food, 216.
OUR RESOURCES.—Questions About Alameda County and Answers in Special and General Terms; California Condensed, 218-19.
POPULAR LECTURES.—Economy of the Vegetable Kingdom, 225.
SHEEP AND WOOL.—Wool Market; Sheep in Trouble, 226.
AGRICULTURAL NOTES from various counties in California, 228.
MISCELLANEOUS.—The Winter Here and at the East; How Malt is Made; Cremation; How to Use a Grind-stone; To Crystallize Flowers, 211. Industrial Items; California Railroad Items; The Black Hills; Some Hints About Screws, 217. Coal as a Raw Material, 219. Fruit-Drying, 220. Grange Directory, 221.

ON FILE.—"Brown Leghorns," M. E.; "Letter from Little Falls, N. Y.," J. A. W.; "Jute as an American Product," E. L.; "Growing the Castor Bean," J. T. L.; "From Cosmopolitan Grange," J. H. W.; "San Gabriel Grange Grove Association," A. C. K.; "From El Monte,"—; "Improved Farming," J. T.; "Bernard's Grange," T. D.

BEANS FOR BAKING.—A subscriber writes to the Press from Anaheim, asking what is the "most profitable variety of beans to grow for baking purposes?" We have interviewed parties who are supposed to "know beans," and they declare that a small white bean, called the "pea bean," is the best.

THE "summer resorts" in this State are now beginning to open. Congress Springs, at Saratoga, Santa Clara county, receives visitors after April 1st, and other places of similar character will commence business shortly.

ARRIVAL OF PROF. HILGARD.—We are pleased to note the arrival of Prof. Hilgard, the newly appointed Professor of Agriculture at the California State University.

Alfalfa Outside of California.

With a prudence characteristic of farmers our friends in other States are slow to embark in alfalfa growing. They evidently suppose that because its success has been notable in California, this country must possess some peculiar advantages in this connection; and though they are not disposed to give it up to us entirely, they seem to scarcely hope that it will do as well with them as it does with us.

The following letter, addressed to the Rural Press, and written by a gentleman of Colorado Springs, Col., is one of many such as we are receiving from parties in various portions of the country:

"I am carrying on a large live stock and farming business here, and would like to try a crop of alfalfa this spring. It is not known in this country, and has never been grown here. Not knowing any seed dealers in California, I take the liberty of writing to you for information concerning it—cost of seed per pound, number of pounds to acre, best time for sowing, mode of cultivation, etc. I would like to try about ten acres of it if it is thought adapted to our cold climate."

In answer to the above, we would say that prime alfalfa seed is worth in San Francisco 20 cents per pound by the hundred pound. This does not include dayage and extra sacks. There is a grade of alfalfa seed in market selling at 9 cents per pound. Where it is to be grown for sheep or hogs, it might be advisable to sow this, but for other purposes, the best seed will be the cheapest in the end.

The amount of seed required per acre varies, according to soil and climate; the latter having most influence. The farmers in California have learned by experience that it is decidedly a "pound foolish" practice to scrip in the number of pounds of seed sown to the acre. The growing of alfalfa in California was commenced on a basis of 15 pounds to the acre; it was soon found, however, that the thinly-sown fields suffered most from the sun and drying winds in spring. In passing through this ordeal, there is found to be the same difference between light and heavily seeded alfalfa fields that there is between late and early sown grain. As in the case of the grain, the early sown gets a good stand, and covering the ground protects the roots from the sun and wind, which, falling upon the late sown while the ground is partially bare and the roots are tender and weak produces a crust on the surface soil, and the rays of the sun follow the slender stalks down to their roots, and blight ensues. So in the alfalfa field where the sowing has been liberal, the heavy stand of an early growth covers the soil and renders the hot sun and blighting wind powerless for evil, while that which was stinted in seed is unable to withstand the exposure. In most other farming countries, this late sown grain, or thinly sown alfalfa, would have derived no injury from a similar setback in spring; on the contrary, it would have been turned to advantage by schooling, but experience has taught the farmers of California that this is the severest ordeal to which grain and grass are subjected in this country. They have found a remedy in heavy seeding, and 20 pounds of alfalfa to the acre is now the standard seeding here. Some sow still heavier; we know of one of the most experienced alfalfa growers in the State, an extensive dairyman, who in this season sowing 30 pounds to the acre. By this liberal seeding the young growth is less liable to suffer from the impending drought, as stated above, and another marked advantage is gained by the alfalfa at once getting the upper hand of any foulness which the soil may contain.

As to mode of cultivation in districts subject to spring frosts, defer sowing until there is no longer any danger from this quarter. Plow deep, harrow mellow and fine, brush the seed in and roll with medium weight roller. The seed should not be put in deep, and it is desirable that it be well covered—not by lumps, however, and that the fine soil be brought all about the seed; brushing and light rolling will do this.

If the above principles and precepts are properly considered and practiced, and the field receives such subsequent treatment as any good pasture or meadow ought to receive, it will not need reseeded for twenty years.

Publications Received.

A NEW MONETARY SYSTEM.—This is the title of a volume recently published by Henry Carey Baird, Pa., but written in the early part of the present century, and first published in 1848-49. It was written by the late Edward Kellogg, and the present edition is edited by his daughter. We have not had time thus far to give it the careful perusal which it apparently deserves. As we become better acquainted with its contents, we may have occasion to lay some portions thereof before our readers. A. Roman & Co. have the above for sale.

MR. E. W. BRSWELL, Treasurer and Corresponding Secretary of the Massachusetts Horticultural Society, sends us a copy of the transactions of this Society for the year 1874; for which he will please accept our thanks.

CATERPILLARS.—These pests are making their appearance in unpleasant numbers on the oak trees at Berkeley.

Good Crops Insured.

In the Press of last week we gave a carefully prepared statement of the condition of the grain and grass crops at that time. Although a general desire was expressed for more rain, the showing gave pretty good assurance of nearly, if not quite, an average yield. Accompanying many of these loose statements of the condition of the crops, were assurances of indications of rain; but since the Government effected a corner in weather prophecies, we have felt less inclined than ever to take any ventures in this direction.

Scarcely had that number of our paper gone to press when the rain began to fall in its own quiet way, and during that night an amount fell which, though quite moderate, was sufficient to materially brighten the agricultural outlook. Again, on the following Sunday, we were favored with another modest rain, which was truly a Sabbath blessing. Our readers will find among our "Agricultural Notes" accounts of the effects of this last rain in nearly all portions of the State; and from these but one conclusion can be formed—that we may safely reckon on the wheat and other leading crops of the present season, as being, at least, up to the standard of "good."

It is generally noted on such occasions that the faces of farmers are lighted up with smiles. Well may they smile; but from our intercourse with both city and country life we are convinced that the anxiety felt by the residents of cities and villages in regard to any probable injury to our crops, and their rejoicings at any favorable turn, are as intense and as hearty as those that are felt by the people of the country. "The late rains" is the great topic of the day.

Starch.

The discovery of starch is not a modern achievement. Pliny places it anterior to the Christian era—in fact, there is good reason to suppose that it was not unknown to the ancient deities, and that the flowing robe which graced the form of Venus was perhaps starched and frilled. Be this as it may, starch has always retained a strong hold upon the popular favor. During the reign of Queen Elizabeth it was in great demand in England to stiffen the enormous ruffs of that period. It must, however, have been an inferior article, as we see it spoken of in the occasional historical allusions as of a yellow greenish color, showing that the manufacture was still in a crude state. Only during the last quarter of a century, and in the United States, has the refining of starch approached perfection.

In 1855 the Messrs. Duryea, at Glen Cove, Long Island, began the manufacture and refining of starch from maize or Indian corn. Their business has increased to such a degree that their works at Glen Cove now cover twelve acres, and have a manufacturing capacity of thirty tons per day. Duryea's starch received the first prize medal at the Paris exposition of 1867 for "Perfection of Quality." This, where the article was brought in competition with the manufacturers of the whole world, was a triumph. Duryea's starch is of a pure white, while many starches will be found to have a golden or yellow tinge. This is accounted for by the superior process of manufacturing made use of by the Messrs. Duryea, which enables them to segregate the perisperm or albumen from the gluten and fatty matter of the maize. The Duryea starch, as prepared for the market, answers well the description of Brander: "Starch is a snow white and often glistening powder, which, pressed with the fingers, produces a peculiar crackling noise."

In addition to the several brands of laundry starch this company manufactures an improved corn starch, and what is known as "maizena" for culinary purposes. The latter has achieved a fine reputation among housewives. Egerton, Allen & Co., of this city, are sole agents for the Pacific coast of the Duryea starch.

SPRUCE UP A LITTLE.—Now, while spring is bedecking herself in her gayest outfit, is the time for people to lend her a helping hand in making their grounds attractive. Mr. R. J. Trumbull, 427 Sansome street, has just received a shipment of ornaments for rural grounds, in the form of trellises, which are tasteful, convenient and cheap. They are from the manufactory of Wm. H. Page & Co., Greenville, Conn., Mr. Trumbull having the agency for the Pacific coast. A moderate amount of money judiciously expended in this direction, will add much to the decoration of flower gardens, lawns and other rural situations.

THE Gilroy Leader says the Consolidated tobacco company commenced re-planting their tobacco plants in the Hanna field on Monday, and quite an army of Chinese have been busy during the entire week. The plants are quite healthy and thrifty, and the ground could scarcely be wished to be in better condition for planting. At present there is every indication for a favorable and successful season for tobacco growing.

PARTIES interested estimate the surplus grain crop of this State for the coming year will reach 600,000 tons.

POPULAR LECTURES.

Economy of the Vegetable Kingdom.

Tenth Lecture Delivered before the University of California College of Agriculture, on Monday, February 1st, by PROF. C. E. BRADY.

[Reported and Illustrated for the Rural Press.]

The Nightshade, Star Apple, Tobacco, Etc.

The nightshade family, *Solanaceae*, are herbaceous or woody plants; in all about 1,000 species, of these a very few species are found all over the world, but the most of the species are tropical, so that speaking of it generally we must call it a tropical order. Although some when prepared are wholesome, yet the whole family is more or less poisonous and this poison is a narcotic. Several plants, however, are of the greatest value for food and, outside of the order of *gramineae*, I don't whether there is another single plant which has as much general value as the potato, *Solanum tuberosum*, a native of the higher regions of South America and also found to a certain extent in Mexico and one very nearly allied species is found growing in portions of California. The potato was originally very small, but culture has changed it. In this change, it seems as if the size of the potato was increased, while the amount of poisonous matter in it was not increased, so that it is considerably diffused and probably this is due largely to culture. It was first introduced into England in 1597, by Sir Walter Raleigh; but for fully a century it was very little esteemed. In fact, only within the last hundred years, it has come into general use. Not only does it furnish food, but it furnishes starch for use in the arts. From it also there is produced, in some parts of the country, a spirituous liquor somewhat resembling brandy. I should say, whenever these tubers are exposed to the sun, they are

Pervaded by This Narcotic Poison;

So, of course, it is unhealthful to make use of them.

The egg plant, *Solanum melongena* is another South American plant. [Fig. 1.] It bears large egg-shaped fruits which are used in cooking. It has never come into general use. Further, it has so much of this poisonous matter that unless taken at the proper time there is danger in it.

The tomato, *Lycopersicon esculentum*, also from South America, is now largely grown for its delicious fruits, though for many years after its introduction it was supposed to be poisonous and was grown only for ornament under the name of love apple. Almost any of the old people will tell you of seeing it grown years ago just for an ornament. Now, in these the poison is still present when they are green, but in ripening the sun seems to eliminate the poison from them. If eaten when they are green they are injurious, unless prepared in vinegar or in some manner so as to remove the unwholesome tendency. [A student, "The sun seems to have an opposite effect upon them from that it has upon potatoes."] [Professor explained this, saying]—When the sun shines upon a potato, it changes the tuber into a stem, and it is therefore poisonous. I suppose if the fruit of the potato when ripe could be eaten we would find little poison in it. As long as the fruit is green there is a great deal of poison in it which can only be dissipated by the sun or the heat of cooking.

Another plant is the ground cherry or cherry tomato. It belongs to the genus *Physalis*, and is a little, low plant, with yellow, or orange-colored fruit, not unpleasant to the taste, enclosed in the enlarged calyx. It grows in the United States. The winter cherry, *Physalis alkekengi*, is a native of Southern Europe; now considerably grown for ornament.

Cayenne pepper is the product of *Capsicum annuum*, a South Asiatic plant, coming from India, now largely grown in all warm climates. In this case the narcotic matter or poison seems to be changed into this pungent matter found in pepper. What we call Cayenne pepper is the variety which grows large, long pods. These being annuals, of course can be grown very far north, and can also be grown well to the south.

Stramonium, or thorn apple—you see we are passing from the food plants to the medicinal ones—*Datura Stramonium*, is a large ill-scented weed, with very large, trumpet-shaped flowers and prickly pods. Its seeds [Fig. 2], contain an alkaline principle considered valuable in medicine. When taken in considerable quantity they produce raving and in excess profound stupor. Stramonium is kept in the shops in considerable quantities. It is said to be one of the ingredients of

Drugged Liquors.

When any one is put into a stupor through taking certain liquors, generally stramonium has been used in the liquor. It is, however, used quite considerably in legitimate practice.

Belladonna is a product which has a better reputation and is derived from the perennial herb, *Atropa belladonna*, a native of Europe. The whole plant in this case is exceedingly poisonous, and from it we get the drug known as belladonna. Like henbane, which is derived from a nearly allied species, it has the power of dilating the pupil of the eye. If a drop is al-

DOUBLE SHEET—24 PAGES.

Orchard Oriole.

The orchard oriole enters the Southern States from South America early in March, and continues there until October. In the more northern regions, it of course arrives later and departs earlier; but it does not often go further north than Connecticut. The migration from south to north is performed by day, and singly, the males preceding the females by a week or ten days, frequently alighting on the top of trees, to rest or feed. They exhibit a great repetition of motions of the wings, although gliding through the air for a few yards only at a time, and, while about to alight, as well as afterwards, perform strong and well-marked jetting of the tail.

As soon as they reach the portion of the country in which they intend to remain during the time of rearing their young, and where they are always welcomed with pleasure, these birds exhibit all the liveliness and vivacity belonging to their nature. A little time is consumed before the female is won by her frisky wooer, the singing and gyrations of which are then very ardent; and, as soon as they have paired off, the most active industry is evinced. They resort to the meadows or search along the fences for the finest, longest and toughest grasses they can find; and, having previously fixed upon a spot, either on an apple-tree or amid the drooping branches of a weeping-willow, but which is very apt to be near the habitation of man, they begin by attaching the grass firmly and neatly to the twigs immediately around the chosen place. The filaments are twisted, passed over and under, and interwoven in such a manner as almost to defy the eye of man to follow their windings. All this is done by the bill of the bird. The nest is hemispherical, and supported by the margin only, finished outside and in with long slender grass, some of which goes around the nest several times, as if closely woven. But softer and warmer materials are used in the more northern ranges of these birds.

Figs, mulberries, strawberries, and various kinds of fruits are eaten by these birds, but not to a very injurious extent, their chief reliance being upon the pernicious insects of the garden and field.

Industrial Items.

ABOUT two years ago a steamer was constructed at Stockton for Russian merchants doing business at Nicolaefski, who desired her for use on the Amoor river. The steamer gave such satisfaction that orders for two more steamers of the stern wheel style were received by her builders. The new steamers have been built in sections for convenience in transportation. Each is 135 feet long, 70 feet beam and 5 feet depth of hold.

MARBLE from the Tuolumne quarries is attracting considerable attention. A Stockton paper mentions having seen four large slabs at the depot there a few days since, which weighed about ten tons, en route to San Francisco. The quality of the marble seemed as pure white as the Venetian, with a small speck or flake of black throughout.

A CORRESPONDENT of the *Tulare Times* advocates the building of a canal for irrigation and transportation on the west side of the San Joaquin river, and furthermore that it should be done at the expense of and owned and controlled by the State, or if that is not feasible then incorporate a company and seek State or National aid.

SHIP building on the Pacific Coast promises to take a new impetus from the recent action of the Board of Underwriters, who propose to rate vessels built of Puget Sound fir, under certain specifications, as A. 1. The specifications in detail are being prepared, and will be made public in a few days.

Of the exports from San Diego during the past year we note, from the report of the President of Chamber of Commerce, the following: wool, 1,000,000 lbs., honey, 400,000 lbs., wheat (raised), 200,000 lbs., of which latter product the first cargo was recently shipped direct to Europe.

Two French gentlemen, of San Francisco, have been examining a large tract of land above the junction of the Gila and Colorado rivers, with a view of settling a French colony thereon. They expect 100 families to arrive anon and make a commencement.

Four coal banks are in operation near Empire City. Each mine employs about 75 men. Fifty tons are daily taken out of each mine. The coal is extensive and of good quality; most of it is shipped to San Francisco.

The two foundries and two planing mills in Santa Cruz are busy turning out machinery and doing work for the two railroads now being constructed into town.

The *Lakeport Bee* says: "Such is the increase of our incoming population that it is utterly out of the question to find a dwelling to rent."

THE Stockton *Independent* urges the erection of suitable buildings for storing, and the establishment of a wool-grading institution in that city.

THEY are at work upon a number of threshing machine engines at the Vallejo foundry.

California Railroad Items.

Railroad building and surveying is pretty brisk in California just at present, and a number of new lines are projected. In other places railroads are being extended, and general activity in this line prevails. We append a brief synopsis of what is being done in different places:

A NARROW gauge railroad from San Luis Obispo down the coast to Guadalupe in Santa Barbara county, is to be constructed immediately. In fact, two of them, that of Goodall, Nelson & Perkins, and another by the Hartford railroad company; and the Santa Barbara Press urges citizens of that place to build one from there to meet it. If this were done, the road would soon be carried on to Salinas, and railway connections with this city would be soon

Colusa to Chico. The distance is thirty-five miles, being over a level, rich, agricultural country. There is no doubt that the road will be built soon enough to carry the fall crop. Colusa and Chico men say the stock will be taken by local capitalists without trouble. The farmers and owners of land along the proposed route are enthusiastic in support of the road, and will take stock to the extent of their means.

THE San Lorenzo Flume and the Santa Cruz and Felton railroad company have about 200 men at work, and the work progresses rapidly. The flume will be fourteen miles in length, and about one and three-quarter miles is completed and working with perfect satisfaction. The company's mill is located twenty-one miles from Santa Cruz and cost \$12,000. The railroad will be seven miles long, and most of the surveyed route is graded.

THE Mendocino *Star* learns that a joint stock company has been formed, with a capital of

The Black Hills.

The "Black Hills excitement" instead of being on the wane seems to be on the increase at present, and parties are talking of going there from every direction. We notice advertisements in the San Francisco daily papers, by which it seems an expedition is being formed here, and similar expeditions are being organized elsewhere. Reports from the Black Hill country are however very contradictory and unsatisfactory, but this only seems to excite the nomadic miners still more.

Some men have come into Cheyenne bringing rich specimens of placer gold, silver quartz and plumbago, lead and copper, and glowing reports of the country. They report diggings worth 15 cents to \$1 per pan, plenty of water, game, timber, etc. These men propose returning to the hills about the middle of April as well as the company from here.

Notwithstanding the fact that the Government has prohibited miners from entering the reservation there is no doubt that there will be a big rush there this spring. The following is General Sherman's order to General Ord:

The President directs the following to be made public: All expeditions into that portion of Indian territory known as the Black Hills country, must be prevented so long as the present treaty exists. Efforts are now being made to arrange for the extinguishment of the Indian title, and all proper means will be made to accomplish that end. If, however, the steps which are to be taken toward the opening of the country to settlement fail, those persons at present within that Territory must be expelled.

By command of General Sherman.

WM. D. WHIPPLE, Asst. Adj't.-General.

It is now stated, however, that the Sioux are willing to relinquish their claims to the country for a consideration because they know that the whites will eventually get in there anyhow, and the Indians want to make a treaty with the Government before this happens. The *Sioux City Journal* of March 20th, states it has received information that President Grant has taken decided steps looking to a speedy opening of the Black Hills; that the Secretary of War and other members of the Cabinet are heartily in sympathy with the movement; that the Indians are willing to dispose of their interest in that country, and that Mr. Collins, of Galena, Ill., an old friend of the President, has been commissioned by him to proceed West and take to Washington a number of representative Sioux, to carry out the desired negotiations. This has not been made public, though some allusion to the matter has been telegraphed so the facts will soon be developed, and it is thought that by the time the companies now organizing are ready to start, the opposition of the Government will be removed.

It is also stated that Secretary Delano has taken steps to bring to Washington a delegation of the Sioux for the purpose of negotiating the extinguishment of their right to the Black Hills country. Another report is that the treaty of the United States with the Sioux Indians was never ratified by Congress, and would not stand if tested. It strikes us however, that if this is so, and the present were insisted on, it would carry on an Indian war with good reason.

The opinion expressed by many, with relation to the whole Black Hill business, is that it is fast red and increased by parties interested in outfitting miners, and carrying on freight and other business. Reports are so very contradictory and vague that it is difficult to judge which are true. It will of course be settled this spring, however, for some will surely go. Those miners who have now paying claims will be foolish to leave them to go on a "wild goose chase" to the Black Hills or any other new country. Still, we do not believe that the Government will be able to keep prospectors out with its whole army. They have been in there already in spite of all orders to the contrary, and if they become convinced that the gold is there, all the proclamations in the world will not keep them out.

Some Hints About Screws.

Where screws are driven into soft wood and subjected to considerable strain they are very likely to work loose; and it is often difficult to make them hold. In such cases we have always found the use of glue profitable. Prepare the glue thick; immerse a stick about half the size of the screw and put it into the hole; then immerse the screw, and drive it home as quickly as possible. When there is an article of furniture to be hastily repaired, and no glue is to be had handily, insert the stick, fill the rest of the cavity with pulverized resin, then heat the screw sufficient to melt the resin as it is driven in. Chairs, tables, lounges, etc., are continually getting out of order in every house; and the proper time to repair them is when first noticed. If neglected the matter grows still worse, and finally results in laying by the article of furniture as worthless. Where screws are driven into wood for temporary purposes they can be removed much easier by dipping them in oil before inserting. When buying screws notice what you are getting; for there are poor as well as good kinds. See that the heads are sound and well cut; that there are no flaws in the body or thread part, and that they have gimlet points. A screw of good make will drive into oak as easy as others into pine, and will endure having twice the force brought against it.—*Canadian Builder*



THE ORCHARD ORIOLE.

accomplished. The Goodall & Nelson managers have already purchased nine miles of iron for this road. They have also ordered work to be pushed forward with all possible haste, and the laborers are now on the way. With no obstacles, such as injunctions, this road will be completed in perhaps ninety days. The Hartford company assert their determination to construct their road as originally projected. They claim to have means to construct their proposed road, and will carry out their original plans, regardless of the Goodall & Nelson company. The outlook at present is that they will soon have two roads to San Luis Obispo, and unless the Hartford company make it the terminus of their road, will have two roads south to the Santa Maria valley, which is fast rivaling the Salinas valley as a grain-producing district.

In urging the building of a railroad between Chico and Colusa, the *Colusa Sun* says, as an inducement, that if the Chicoites will build the road, which will be between thirty-five and thirty-six miles, responsible parties will contract and give bonds in the sum of \$200,000 for the performance of it, to carry freight from Colusa to the side of the ship anywhere in the Bay of San Francisco for \$2 a ton. A survey of the line was commenced on the 17th inst. The surveying party returned on the 22d inst., and report a natural grade without the necessity of a bridge or filling, on the air line road from

\$30,000, for the purpose of constructing a railroad from the mouth of Salmon creek to its headwaters, known as the Salmon Creek Basin, for the purpose of freighting short lumber to a shipping point on the coast, and perhaps for the purpose of freighting lumber, as it is intimated that a sawmill will probably be built at the headwaters of the creek.

THE lease of the San Rafael and San Quentin railroad to the North Pacific Coast company, has been formerly completed, and the new arrangements thereunder were fully inaugurated last week. Three trips are run daily on the same hours as before, but the fare is reduced to 50 cents. The company will at once reduce the gauge of the old road to a narrow gauge.

Work on the railroad bridge, over Salinas river, which was partially swept away by the flood some time ago, is progressing as rapidly as possible, and the road is expected to be in running order again some time this month.

THE Narrow-Gauge railroad between Salinas City and Monterey, will again soon be in running order, but the exact time cannot yet be stated.

THERE are 300 men at work on the Los Angeles and Independence railroad.

ONE of the oil wells in San Fernando is now flowing fifty barrels of oil per day.

OUR RESOURCES.

Questions About Alameda County and Answers in Special and General Terms.

The following queries are made in a letter written to Sheriff Morse, of Alameda county, by a gentleman in Switzerland. He says:

Some persons, well known to me, who intend to emigrate to the United States, ask my advice, as to which State they are to choose for their future home, and feeling the importance of the question, I should like to await your kind answer, which, if favorable, will serve me as a guide in directing my friends to your young State, on the distant shores of the Pacific, trusting, that by economy and industry they may succeed within a few years to lay the foundation of a safe and comfortable existence.

Respectfully yours,

WILLIAM MAYERS, Merchant,
St. Gall, Switzerland.

By our request, the answers following are furnished by an old and reliable resident of Alameda county, Mr. W. K. Rowell, of Oakland.—Eds.

1. What is the climate of the county in the four seasons of the year?

1. The climate of California varies very much with the locality. Along the coast it is not subject to great extremes, but to frequent changes, being modified by the temperature and wind of the ocean.

In the interior it is less variable, but subject to much greater extremes.

The greatest degree of cold occurs from December to March, and of heat from June to September. The nights even in the warmest season are always cool.

2. Is the climate mild and steady or rigorous and changeable?

2. The climate is regarded as mild but somewhat changeable in a greater or less degree, according to locality.

3. Which months of the year distinguish themselves by fine, steady weather; which by changeable and which by stormy and rainy weather?

3. The months from May to October are distinguished by "fine, steady weather," though somewhat roughened along the coast by the strong sea breeze, which prevails for much of the time during these months.

During the other months the weather is more changeable.

4. Is winter in general mild or severe, and is there much rain and fog?

4. The rainy season is from October to May, though most of the rain falls between the first of December and the first of April.

During the months from December to March storms may occur.

The rainfall varies very much from year to year, and in different portions of the State—there being less in the southern portion than in the middle and northern. And in these sections, on account of mountain ranges, or for other natural causes, much more rain falls on one portion than on another; even one bank of a river receives more than the other bank.

I notice from statistics, that the average rainfall, taken in this locality, for the last twenty years, has been about 24½ inches, the smallest amount for any one year being a little over 10 inches, and the largest over 49 inches.

Often for much of the time during the winter or rainy season, the weather is delightful, even for weeks together. At other times, the rains are continuous for days and even weeks.

Fogs are also prevalent during the winter, more especially in the central and northern portions, and even in the dry season along the coast they prevail to a considerable extent.

5. Are frosts or droughts of frequent occurrence, and of an injurious nature to vegetation?

5. Frosts are not generally severe, and vegetation suffers but little from them. The grass springs up soon after the first heavy rains, and continues to grow during most of the winter.

Flowers are in blossom all the season. On this 27th day of February, acacias, almonds and apricots are in full bloom, with an abundance of violets, pansies, lilies and roses in all the gardens throughout the country—and in many places these latter have been in blossom out of doors since the first of December.

The droughts are much more serious than the frosts.

Wherever the rainfall is scanty during the winter, vegetation is liable to suffer during the summer or dry season.

This danger, however, is diminished by the character of the soil, the modes of cultivation, the influence of fogs and cloudy weather.

Some localities have seldom if ever suffered seriously from droughts. This is true of Alameda county. In portions of the State less favored with moisture, irrigation is being resorted to with great success.

6. Is the country flat or hilly, and is it exposed to periodical inundations?

6. In the State there are extensive valleys and plains, also ranges of mountains and hills. Valleys from 200 to 300 miles in length, and from 10 to 20 in width.

Alameda county lies along the eastern shore of San Francisco bay, and has a valley, as it is termed, between the bay and the foothills,

some 25 or 30 miles in length and from two to eight miles in width.

This has a gentle slope towards the bay for the most part. Now and then a portion is slightly elevated above the adjoining land.

There is a strip of marsh land along the western portion of the valley, of which as yet but a small portion has been reclaimed.

The eastern portion of the valley is terminated by low rounded hills, succeeded by and connected with others more elevated until the coast range of hills is reached.

Many of our low hills are easy of cultivation and produce good crops; others are good for grazing.

There are three other valleys in this county of considerable importance. San Ramon is about two by five miles in extent. Sunol of three by four miles, and Livermore three by twelve. Inundations in this county are never experienced.

Other portions of the State are not so fortunate, and along the Sacramento and San Joaquin rivers, and along many of the smaller streams, overflows are experienced occasionally which do considerable damage; but by the building of levees these overflows will in a great measure be prevented.

7. Is the aspect of the country agreeable and diversified or uniform and unattractive?

7. The aspect of the country is generally diversified and agreeable, especially during the season of vegetation.

8. Is the soil dry or moist, or partly covered with swamps?

8. There is a great variety of soil in the State.

In this county it varies from a light sandy loam to a dark clayey soil, the latter difficult to work except when properly tempered by the rains. When cultivated at the proper time it retains the moisture.

There are some swamp or overflowed lands as mentioned above.

9. Is the country richly wooded, or partly open land?

9. In a few portions of the State the country is thickly wooded, but generally the timber is scattering. Many of the valleys and low foothills are covered with oaks, and along the water courses there are sycamores, cottonwoods and willows, which add much towards beautifying the aspect of the country.

10. Is the soil fertile and adapted to agriculture, the growth of fruit, the culture of the vine and to cattle breeding?

10. Much of the soil is very fertile and well adapted for agriculture. Fruit of nearly every variety, from the semi-tropical to the hardy fruits of New England, can be raised successfully in some portions of the State.

The peach and grape do not do well in this county; apples, pears, plums and cherries, together with currants and the other small fruits do well.

Cattle are easily raised, as they require but little care or shelter on account of the mild climate.

11. Can the produce of agriculture and cattle breeding be easily and profitably disposed of?

11. There is a good market for all the agricultural produce, also all the produce from the rearing of cattle and sheep.

I cannot say the same for perishable fruits; but anything that which will bear transportation can readily find a profitable market.

12. Are there any manufacturing or other industrial establishments in your county, and of what kind?

12. There are not many manufacturing establishments in this county at present. They are, however, receiving more attention.

There are several flour mills, one large jute factory for the manufacture of grain sacks, several establishments for the manufacture of agricultural implements and carriages, several planing mills, a rope walk, gas factory, cement pipe factory, artificial marble factory, and smelting and refining works; also several tanneries, several potteries, and two fruit drying establishments.

13. By what means of conveyance, by land and water is the produce of the country exported?

13. The produce of the county is taken to market by both land and water. The surplus produce of the State is exported mainly by water.

14. Is the population of your county rapidly increasing, and of what origin composed, and are the inhabitants of a peaceable or quarrelsome character?

14. The population of this county is quite rapidly increasing, and is being augmented by immigrants from the older States, from Ireland, England and Scotland; also from Germany, France, Italy and other European countries.

There is also quite a population of Chinese. The inhabitants are generally of a peaceable character.

15. What are the drawbacks and dangers to which the settler is exposed in your county by natural events, epidemics, wild beasts, venomous reptiles, troublesome insects, etc.

15. There are no drawbacks or dangers here to which a settler is exposed, which he might not experience in the most favored part of the globe.

One earthquake has occurred during the last fifty years, causing some damage to property and the death of one individual in the county.

There are no prevailing epidemics, no wild beasts or venomous reptiles to be found, and no more troublesome insects than the house fly and the flea, and the latter are not numerous.

16. Is there still a choice of well situated and fertile public lands for sale on the conditions of the homestead law of 1862 in your county?

16. There are no desirable tracts of land to be taken up in this county.

17. Is there already much land in private hands and under cultivation?

17. I may say that all the desirable lands of the county are in private hands, and either under cultivation or used for grazing.

18. At what approximate prices can public and private land in your county be bought in lots of 100 to 500 acres?

18. The best farming lands will sell for from \$100 to \$300 per acre, and second or third class lands at from \$25 to \$100. Hill land for grazing at from \$4 to \$25 per acre.

19. To what persons or public offices must the immigrant apply, who wishes to purchase public or private land in your county?

19. To ascertain if there are any public lands still to be taken up, one would go to the General Land Office in San Francisco. To secure private land, one would go to the owners or to real estate agents, who are to be found in all the cities and large towns.

20. Which season of the year is the best for immigration and which route is the best from San Francisco to your county?

20. If a person desires to see the country under the most favorable circumstances, he should come in May, or early in June, and not later than September if he wishes to engage in agricultural pursuits, as the farmer commences preparing for his crops with the early rains.

As Alameda county is on the opposite side of the bay, some four miles from San Francisco, the immigrant has only to cross the ferry, and he finds himself in Oakland, the county seat of Alameda county.

21. How many inhabitants does the chief place of your county and the whole county contain?

21. Oakland contains some twenty thousand inhabitants, and the county about forty-five thousand.

22. Do clerks, joiners and dressmakers, who understand their business, readily find employment in your locality, and what prospects would a cook have, well acquainted with English cookery?

22. Clerks do not readily find employment, but joiners and dress makers can generally find enough to do at fair wages. Good cooks are always in good demand at high wages. Female domestics find ready employment at from \$20 to \$30 per month.

23. Do persons and property enjoy perfect safety?

23. Persons and property enjoy perfect safety, and yet I could not say that murders and thefts never occur. But our laws and regulations are such that we feel ourselves secure.

24. Are there good public schools in your county?

24. The public schools of the county are excellent; supported at public expense, and furnishing to all alike a good education.

One can enjoy all the advantages of the State University, located in the county, free of expense.

25. Can you conscientiously recommend persons of industrious habits and good principles to immigrate to your country and county?

25. I have no hesitation in recommending persons of industrious habits and good principles to immigrate to this State. This county might not be the most desirable for an immigrant. There are other portions of this State where lands are much cheaper, and where many inducements could be held out to the settler of small means that could not be offered here. Lands suited for the grape and raisin culture and for other fruits can be found in the foothills and in the valleys at from \$2.50 to \$10 per acre; farming land at from \$5 to \$30, and lands for sheep and cattle at from \$1.25 to \$10 per acre.

The mineral resources of the State are but partially developed, and there are many industries still open to the enterprising settler, by which he could obtain a comfortable living and secure something for the future needs of his family. In no part of our country can butter and cheese be manufactured more readily than here, and yet to supply this coast a large part is brought from the older States. Butter at the present time retails at from 40 to 50 cents per pound, and cheese at from 25 to 30 cents. Eggs are 45 cents per dozen, and hams 16 to 20 cents per pound. All these can easily be raised here, and yet large quantities are imported every year.

The Shasta Courier speaks very hopefully of the future of that county. New mines are being taken up, and the water rights and other means of making the mineral resources available are being rendered and put in shape for future use.

A block of marble 30 feet 5 inches long, by 20 feet wide, and 10 feet in thickness, weighing about 610 tons, was recently quarried near Columbia, Tuolumne county. It will be reduced to smaller blocks and taken to San Francisco for the Palace Hotel.

Dr. W. D. Smith discovered quicksilver on the side of the hill, a short distance back of W. F. Fisher's residence, Calistoga. This is said to be very rich, and several claims have been located already.

Slate from the Chile Bar quarry, El Dorado county, was used in repairing the roof of the Cary House, Placerville. It is a very superior article.

A fine prospect for quicksilver has recently been found about three miles southwest of Lower Lake.

California Condensed.

His Appearance in February.

While the people of Iowa were shivering over their coal fires, trying often in vain to keep out the terrible cold of this, to be, memorable winter, here in California the favored inhabitants were enjoying very different conditions. I say enjoying advisedly, for what else could they do with roses in bloom, the trees covered with foliage, and the hills green with soft new grass? While reading the *Journal's* accounts of the storms and snow blockades, I have often done so with the window open, and no suspicion of a fire in the grate, which for a week or more had not been lighted. A stroll through Oakland, which lies just across the bay from San Francisco, shows the roses, carnations, heliotropes, geraniums, fuchsias, and a multitude of other well known plants in bloom, in the open air. And such roses! Not the puny things the hot-house men force into unnatural bloom in less favored countries, but large, full, ruddy ones, which look as if they had sucked up from the earth, instead of water, some of the rich, red wines of the warm valleys.

And then the geraniums! What shall we say of them? Growing often six to seven feet in height, heliotropes ten feet high, running up the walls, and covered with hundreds of delightfully fragrant flowers.

Go out of the city a few miles in the San Leandro valley, and what a sea of whiteness is to be seen in the tens of thousands of almond trees covered with their fragrant white flowers. Here and there the pink tints tell us that the peach trees are also in full bloom. Now and then a round topped tree may be seen bearing half hidden in the glossy foliage, large, yellow, and luscious looking oranges.

The grain fields are green with wheat and barley, the former fully half a foot in height, while the pasture lands are in places covered with rank herbage a foot or more high in which the cattle and sheep revel with delight as they fill themselves almost to bursting.

The Climate.

California can not properly be said to have a climate, it has many. A good map of the State shows it to have next the ocean a narrow strip of land which is nearly level; then comes the hilly and mountainous strip made up of the Coast Range mountains; next the great interior basin, called at the north the Sacramento valley, and at the south the San Joaquin valley; next to this still further towards the interior the region of the foothills; and lastly the mountainous region of the Sierras. Each strip or region specified above has its peculiar climate, and often in a ride of one hour one can pass from the chilliness of March to the warmth and mildness of June. The ocean maintains a constant temperature of fifty-two degrees Fahrenheit, both summer and winter, so that within its immediate influence the summers are cold and the winters warm, so warm that snow never falls and frosts rarely occur. In the Coast Range district all kinds of climate may be found, though snows are of rare occurrence in the vicinity of San Francisco. In the great central valley the summers are hot and the winters mild, no snow occurring except in the north portion. In the foothills the climate gradually becomes more severe in winter, until it finally passes into the snows and frosts of the topmost Sierras. The emigrant may here choose his climate, and may be sure it will vary but little from a well known average.

Rains fall from November to March, this period of time constituting the wet season, while from March to November scarcely a drop of rain troubles the farmer. This dry season is the most unpleasant part of the year, in fact it is the real winter, for during the latter part of it vegetation is as completely at rest as it is in the cold months in other climates. It might be supposed that this long suspension of rainfall would make farming a difficult matter, but on the contrary it makes it much easier than in districts where rains come at irregular times throughout the year. Here the farmer watches his rain gauge while the rains are falling; if it shows a precipitation of twelve inches, he knows that he may plant certain crops which demand the least amount of moisture; if fifteen or eighteen inches have fallen, he may plant almost anything; while if the gauge shows twenty inches or more, he plants of everything in abundance, knowing that there is moisture enough in the soil to mature any crop. This absence of rain is an excellent thing in harvest time, for then the farmer is not obliged to hurry up his hauling and stacking, in fact, the latter he need not do at all. Wheat when ripe may be allowed to stand for weeks before cutting, as there is but little loss by shelling as long as the rains hold off, and after cutting it may lay on the ground for weeks again without damage; even after threshing it is often allowed to lie in bags in the field without a shelter for a long time without the slightest injury.

Crops.

The crops are as varied as the climate. The great interior basin is the granary of the State, producing annually millions of bushels of wheat and barley, I should have said millions of cents, for that is the measure we use here. (A cental is a weight of one hundred pounds.) In the coast range and the shore region fruits of all sorts are largely grown. Among such may be mentioned almonds, peaches, plums, prunes, currants, strawberries for the San Francisco latitude, with the addition of o'ives, oranges, lemons, limes and figs further to the

south. In the region of the foot-hills the grape grows to perfection, as also the apple and the peach. All these, including the grain, have a peculiarly fine appearance, no doubt due to the favoring climate. The California wheats are famed the world over for their whiteness and plumpness, especially the varieties known as the "Australian" and "Chili." I may mention right here as an item of interest to your readers, that I have purchased sufficient quantities of these two varieties for trial at the College this year. I am curious to see what effect our Iowa climate will have upon the color and size of the grains.

Timber.

All along the Coast Range are found immense groves of redwood trees, which furnish an abundance of a fine red colored wood, which is in many particulars very nearly like white pine, being, however, much more durable when exposed to the weather. This is the timber tree of California. Next in value is a fir, known as Oregon fir, or erroneously Oregon pine, which is found in northern California, and also in Oregon. Then also sugar pine, yellow pine, cedar and spruce from the Sierras are extensively used for many purposes.

The hard wood trees are mostly small, and in many cases of inferior quality. The oaks are just now coming into use, though most of the species are too brittle to be profitably used. There are no bickories, no elms, no beeches; there is but one small sized ash, one rather rare, and small walnut and one valuable maple. To offset this deficiency there are several valuable trees not found elsewhere, such as the California laurel, which furnishes a most beautiful light colored wood; the madrona, a small sized, heavy wooded tree; and the manzanita, a small tree which furnishes a dense, heavy, dark colored wood, much resembling mahogany.

Minerals.

We generally think of California as the land of gold, forgetting that it has rich supplies of nearly every other mineral of value. I need not attempt to enumerate them, and will only say that of coal, building stone, iron and gypsum, there are inexhaustible supplies.

The People.

Generally the people, from living much in the open air, and having windows and doors open for so great a part of the year, are stout and healthy in appearance. Whether they live longer or not I do not know, but judging from their full faces and healthy color, I have no doubt that the average length of life is somewhat greater than in colder and more inclement regions.

Socially I see but little difference between people here and elsewhere. Possibly the American nervousness is a little more fully developed here, on account of the gold fevers which rage now and then. Wealthy men are numerous, and as a consequence there is much extravagant living. I never found a place where common people spent more per week than here in Oakland. Costly houses, costly furniture, fine gardens and fine dinners need and receive a great deal of money.

The Money.

How strange it seems to have gold and silver in my pocket. The first silver I received for a torn "greenback," I rolled over and over in my pocket, and then and there I realized what a miser's sensation must be when he counts his money. How big the half dollars seemed, and the quarters and dimes, and even the diminutive half dime, how they put to shame their poor relations, the "fractional currency," and the "nickles." But when I drew one day from the bank some gold pieces, twenties, tens, fives, and two fifties, I could scarcely repress my feelings. I did not pay my board bill immediately, for I could not bare the thoughts of parting with such beautiful things. I went to my room, took out those gold pieces, piled them up as I had seen the banker doing, then grasped them all in my hand again and rattled them. I could almost have hugged them (had there been enough of them) they looked so pretty. But they had to go. The landlord took them as unconcernedly as landlords in Des Moines take greenbacks, and with a chuck they were lost to my sight and purse. Gold and silver are true currency, how I wish we had it all over the United States.

C. E. BESSEY.

Oakland, California, March. 12, 1875.

—Western Farm Journal.

POSTOFFICE changes for the week:—Established: Excelsior, Sonoma county, O. Walker, P. M.; Isolatta, Sacramento county, Cal.; Josiah Pool; Los Angeles county, Cal.; Josiah Locke, Camp Polk, Washington county, Or. Samuel W. Hendian; Possey Rock, Lewis county, W. T.; Mrs. Ira Watson; New Asken Prairie, Lewis county, W. T.; Marcell Perlier; Silver Creek, Lewis county, W. T.; John Tucker. Appointments: Carl E. White, Albion, Mendocino county, Cal.; George W. Scott, at Cache Creek, Yolo county, Cal.; James F. Swain, at Modesto, Stanislaus county, Cal.; Alfred Frye, at St. Thomas, Lincoln county, Nev.; Mrs. L. L. Wimpy, at Hngman's Creek, Stevens county, W. T.; Wm. P. Pole, at Beaver, Beaver county, Utah; U. F. Gunnison, at Gunnison, San Pete county, Utah; James J. Walker, at Kaysville, Davis county, Utah; William Ohnesorgen, at San Pedro, Pima county, Arizona.

E. P. BUCKLEY, late license collector of San Francisco, turned out to have been a Boss Tweed on a small scale. He swindled the city out of nearly \$100,000 per annum during his term.

Coal as a Raw Material.

Professor Wm. H. Brewer, who was formerly connected with the California State Geological Survey, and now Professor of Agriculture at Yale College, delivered a very interesting lecture at the State University on Friday, the 12th ult., on "Coal as a Raw Material." We regret that our space prevents our giving more than a brief synopsis of the lecture. Professor Brewer is well known on this coast from his connection with the Geological Survey, and scientific matters generally.

Eleven years ago, the lecturer stated, he had delivered a course of lectures to the old College of California. He had not finished the subject on that occasion, so he would now partly complete the course, and also give some of the discoveries that had been made since that time. As the title of the lecture indicated, coal was to be discussed, not with regard to its common use as a fuel, but as a raw material out of which other substances can be made.

The Sun the Fountain-Head of Force.

It is now a well recognized fact that coal is of vegetable origin, made perhaps of swampy material, or of vast forests. It occurs in extensive strata, sandwiched in as it were between other kinds of rock, and not in veins, as silver, copper, and many other metallic ores are found. Its use as a fuel, although comparatively recent, has become so general that it need only be referred to. But, besides its use for this purpose, an immense number of substances are made from coal, many of which are worth more than their weight in gold. It is interesting to follow out the theory of the conservation of force in coal. This theory is, as its name indicates, that force is never destroyed, being simply changed from one kind of force to another. According to this idea the sun is the fountain head of all force on this earth. So that when coal is burned we are merely receiving the heat and light shed by the sun on vegetation in bygone geological eras. All forces used on this earth are derived from the sun, directly or indirectly, except the force of the tides, which has been utilized to some extent. In this State there is another variety of force not dependent on the sun, which may at some future date be rendered available, but which as yet is rather unmanageable—earthquakes. The force derived from the sun, through the instrumentality of coal, may be better appreciated when it is stated that it has been estimated that steam, at the present day, does the work of a thousand million men.

Coal consists principally of carbon, with which is united hydrogen and oxygen, together with some earthy matter, and is divided according to the amount of volatile matter contained, into anthracite and bituminous or soft coal. The former is used for fuel only, and the differences between the two are similar to those between charcoal and wood—charcoal, like anthracite, burning with little blaze but intense heat.

Substances Made from Coal.

But the lecture is not to deal so much with the uses of coal for heating purposes as its uses for the manufacture of other valuable substances. These substances, although made from the coal, are not necessarily in it, as soda, which is not found in appreciable amounts in sea-water, is nevertheless made from the salt contained. So grapes contain juice from which brandy can be made; from the brandy, vinegar; from the vinegar in connection with lead, sugar of lead, and so on.

It is impossible to go into much detail with regard to the innumerable products resulting from coal. So only a few can be considered. Leaving out the use of coal for ornamental purposes in the form of jet, the principal products are the results of the distillation of the coal.

This distillation occurs in the gas works where the coal is heated in large iron retorts, and is separated into three parts, a solid part remaining in the retort as coke; a gaseous part, purified by passing through water, and other chemical substances, and delivered to the consumer finally, as common illuminating gas; and lastly, a liquid part; condensed in the water. Coke is not the least important of the products. It has a much greater heating power than bituminous coal, and in some parts of Pennsylvania it is made for smelting iron. As coke is used for galvanic batteries, it assists in carrying news around this world on the telegraph. As for gas, its uses are too well known to need mentioning.

Profit on Gas.

The cheapness of gas, considering only the cost of the necessary coal, is rather astonishing to one who has never thought upon the subject. A few years ago the lecturer had occasion to make some inquiries regarding the cost of gas in the Eastern States, and he found that in one large city, deducting the value of the coke, coal-tar, etc., from the cost of the coal, the gas cost but five cents per thousand feet, and it was sold in the same town for three dollars per thousand, though of course this was not all profit.

Coal Tar.

This substance, black, dirty, with a disagreeable odor, would seem to be the last substance in the world from which anything of value could be obtained. But by the researches of the modern chemists this disagreeable substance has been used in the production of oom pounds of great value, and approaching the rainbow in brilliancy. Coal tar is sometimes

used as such, for painting fences, railroad ties, etc., on account of its preservative properties, but commonly one of its products, carbolic acid, is used for this purpose. Ammonium salts are also made from this same substance in many places, and used either as manures or for manufacturing ammonia. The results of the distillation of coal tar, left in the retort, is called asphaltum, differing considerably from what is known by the same name in California, but being used for similar purposes.

From an Inventor.

The following letter, which was recently received from an old client of Dewey & Co., now residing in one of the Eastern States, speaks for itself:

GENTLEMEN: It was through your house that I secured my first patent, and although I have since done business here in the Atlantic States with the ablest patent solicitors—gentlemen who have done me justice—yet I have often regretted that you were too far off to advise with me in my cases. It has taken a longer time with every patent I have taken out since I left California and came East, than in the cases you prepared for me in San Francisco, which is certainly very creditable to you.

By the way, one of my patents has passed the ordeal which is the essential test of a patent's value. I mean that of a trial in the courts, and it stood the battling of one of the best lawyers in the country. The specifications and claims were completely made out and there was a perfect comprehension of its principle during the trial. Since giving it this test we thought that we would make it even stronger, if possible, and submitted it to one of the best patent solicitors for advice. After a careful examination of the case he advised us to let it alone as it stood, saying that whoever made up those papers understood their business. I then informed him that they were drawn up by Dewey & Co., of San Francisco, and he replied that he knew you very well by reputation.

Very truly yours,

L. L. SAWYER.

Meriden, Conn., May 16, 1874.

Hints about Advertising.

If you have goods to sell farmers, how much better will it pay you to advertise in a farming paper, closely read by 15,000 intelligent farmers, than in miscellaneous daily or weekly journals with 30,000 readers, comprising only 2,000 farmers. A mining journal in California with 15,000 readers reaches more intelligent miners than any other 10 papers in the Union.

Purchasers are more likely to look for information in the advertising columns of a paper devoted to their special interests, than elsewhere, when ready to buy. Some will not read advertisements upon any other occasion, but seek the best paper when wanted.

If you happen to be the only advertiser in your line of business in a paper, all the better. But if several firms advertise the same, your own judgment will question whether you can best afford to go unrepresented.

Weekly journals are read most leisurely and carefully, and at a time when the subscriber is most favorably inclined to examine advertisements. The newspaper most specially representing your particular branch of industry is usually best entitled to your patronage, and the most profitable medium you can employ.

An advertisement in an honest and handsome sheet is favorable to the reputation of the advertiser. The readers of the Press are a superior and industrious class, who are able to purchase and who seek to patronize the best and fairest dealing tradesmen.

Advertising in cheap priced mediums (of limited circulation) is like huying goods at retail when you could as well take them at wholesale.

Information imparted to a list of superior and intelligent, and active, and industrious readers (naturally looked up to by others for information), is seed sown in good soil for the advertiser.

Fame and fortune are gained, nine times in ten, by liberal and judicious advertising.

RATES of POSTAGE—Domestic Postage.

ON ALL LETTERS throughout the United States, 3 cts. for each half ounce or fraction thereof.

DROP OR LOCAL LETTERS, 2 cts. per half ounce where there is a free carrier's delivery; other offices, 1 cent.

POSTAL CARDS, 1 cent., in the United States.

VALUABLE LETTERS may be registered by payment of a registration fee of 8 cts. in addition to Postage. Money can be sent with absolute safety by mail, by procuring a Money Order. The fees are: On orders not exceeding \$10, 5 cts.; \$10 to \$20, 10 cts.; \$20 to \$30, 15 cts.; \$30 to \$40, 20 cts.; \$40 to \$50, 25 cts.

PRINTED BOOKS, in one package, to one address, 1 ct. for each 2 ounces or fraction thereof, not over 4 lbs.

ON TRANSPARENT NEWSPAPERS, or other Printed Matter (Books excepted), and on Circulars, Pamphlets, Book Manuscripts and Proof Sheets, Maps, Sheet Music, Chromos, Engravings and Photographs, 1 cent for each 1 ounce or fraction thereof, not over 4 lbs.

SEEDS, Cuttings, Bulbs, Etc., 1 cent for 1 ounce and fraction of 1 ounce, not over 4 lbs.

SAMPLES OF MERCHANDISE (Liquids excepted), Ores, Etc., Flexible Patterns, Paper, Envelopes and Blanks, 1 ct. for each 1 ounce, not over 4 pounds.

ALL TRANSPARENT MATTER, except duly certified letters of Soldiers and Sailors, must be prepaid by stamps.

On matter not above specified, same rate as Letters.

Foreign Postage

LETTERS TO GREAT BRITAIN & IRELAND.—For each half ounce, or fraction, 6 cts., if prepaid; if not prepaid 6 cts extra will be collected in Great Britain, and 6 cts in U. S.

TO THE GERMAN STATES.—For every half ounce, or fraction thereof, via N. German Union direct, 6 cts.; closed mail, via England, 7 cts., prepayment optional.

TO FRANCE (payment compulsory), 10 cts. for each half ounce or fraction thereof, direct mail; 4 cts. (open mail) by England. Fully prepaid, via Eng., one-third ounce, 10 cts.; one-third to one-half ounce, 18 cts.; one-half to two-thirds ounce, 20 cts.; two-thirds to one ounce, 26 cts.

POSTAGE TO CANADA.—On letters, three cents per half ounce or fraction thereof. Must be prepaid. Otherwise letters sent to Dead Letter Office.

Transient printed matter same as the United States. Patterns and samples of merchandise in packages not exceeding the weight of eight ounces may be sent at the rate of ten cents for each sample.

DON'T STOP THE PRESS.—A subscriber in Tulare county, in sending us the renewal of his subscription, adds the following: "Don't stop the Press; I'd just as soon you would stop a portion of my bread. It is a welcome friend to our fireside. Wife is just as deeply interested as I am, and would sooner sacrifice her tea than forego the pleasure of reading the Press. The young Grangers in our family, with sparkling eyes and swift coming feet, gather around to look at the ever new and unfolding wonders to be found in the Press. I repeat it, don't stop the Press."

D. W.

VISALIA, Nov. 3d, 1874.

DEWEY & CO.

American & Foreign Patent Agents,

OFFICE, 224 SANSOME STREET, S. F.

PATENTS obtained promptly; Caveats filed expeditiously; Patent reissues taken out; Assignments made and recorded in legal form; Copies of Patents and Assignments procured; Examinations of Patents made here and at Washington; Examinations made of Assignments recorded in Washington; Examinations ordered and reported by Telegraph; Rejected cases taken up and Patents obtained; Interferences Prosecuted; Opinions rendered regarding the validity of Patents and Assignments; every legitimate branch of Patent Agency Business promptly and thoroughly conducted.

Our intimate knowledge of the various inventions of this coast, and long practice in patent business, enable us to abundantly satisfy our patrons; and our success and business are constantly increasing.

The shrewdest and most experienced Inventors are found among our most steadfast friends and patrons, who fully appreciate our advantages in bringing valuable inventions to the notice of the public through the columns of our widely circulated, first-class journals—thereby facilitating their introduction, sale and popularity.

Foreign Patents.

In addition to American Patents, we secure with the assistance of co-operative agents, claims in all foreign countries which grant Patents, including Great Britain, France, Belgium, Prussia, Austria, Victoria, Peru, Russia, Spain, British India, Saxony, British Columbia, Canada, Norway, Sweden, Mexico, Victoria, Brazil, Bavaria, Holland, Denmark, Italy, Portugal, Cuba, Roman States, Wurtemberg, New Zealand, New South Wales, Queensland, Tasmania, Brazil, New Grenada, Chile, Argentine Republic, AND EVERY COUNTRY IN THE WORLD where Patents are obtainable.

No models are required in European countries, but the drawings and specifications should be prepared with thoroughness, by able persons who are familiar with the requirements and changes of foreign patent laws—agents who are reliable and permanently established.

Our schedule prices for obtaining foreign patents, in all cases, will always be as low, and in some instances lower, than those of any other responsible agency.

We can and do get foreign patents for inventors in the Pacific States from two to six months (according to the location of the country sooner than any other agents.

Home Counsel.

Our long experience in obtaining patents for Inventors on this Coast has familiarized us with the character of most of the inventions already patented; hence we are frequently able to save our patrons the cost of a fruitless application by pointing them to the same thing already covered by a patent. We are always free to advise applicants of any knowledge we have of previous applications which will interfere with their obtaining a patent.

We invite the acquaintance of all parties connected with inventions and patent right business, believing that the mutual conference of legitimate business and professional men is mutual gain. Parties in doubt in regard to their rights as assignees of patents, or purchasers of patented articles, can often receive advice of importance to them from a short call at our office.

Remittances of money, made by individual inventors to the Government, sometimes miscarry, and it has repeatedly happened that applicants have not only lost their money but their inventions also, from this cause and consequent delay. We hold ourselves responsible for all fees entrusted to our agency. The principal portion of the patent business of this coast has been done, and is still being done, through our agency. We are familiar with, and have full records, of all former cases, and can more directly judge of the value and patentability of inventions discovered here than any other agents.

Situated so remote from the seat of government, delays are even more dangerous to the inventors of the Pacific Coast than to applicants in the Eastern States. Valuable patents may be lost by the extra time consumed in transmitting specifications from Eastern agencies back to this coast for the signature of the inventor.

Confidential.

We take great pains to preserve secrecy in all confidential matters, and applicants for patents can rest assured that their communications and business transactions will be held strictly confidential by us. Circulars free.

Engravings.

We have superior artists in our own office, and all facilities for producing fine and satisfactory illustrations of inventions and machinery, for newspaper, book, circular and other printed illustrations, and are always ready to assist patrons in bringing their valuable discoveries into practical and profitable use.

DEWEY & CO.,

United States and Foreign Patent Agents, publishers Mining and Scientific Press and the Pacific Rural Press, 224 Sansome St., S. F.

Fruit-Drying.

The Alden Process—Improvements in Its Processes—Why Changed—Cores and Peelers—Markets for the Products.

Read at the State Pomological Society at Lansing, by W. H. SAWYER.

There are now on record in the Patent office of the United States, seventy-seven different patent dryers. Whether this large number of dryers is the cause, or the effect of the unprecedented drouth of the past two or three years, I am not sufficiently skilled in metrology to determine. For the apparently simple process of drying, a large class of persons seem to think it is a very easy matter to construct a machine that will surpass all others in its drying capacity, quality of products, cheapness of construction and economy of management.

The fruit growers and farmers do not care to know what is the theoretical capacity of a dryer, what the theoretical cost per pound of its product, what quality theoretically can be made (some nice looking specimens can be produced, in almost any little theoretical box) but they do want to know how much have you produced as a commercial article, from season to season on regular day by day operations for months in each year; what is its average quality thus manufactured in large quantities, what is the market value; what does it cost; what the demand for it; does it command a remunerative price, and what valuable disposition is made of the waste cores and skins, etc. These practical questions I shall attempt to answer as to the Alden Process, in which are now invested a million and a half of dollars, and which is the only process that has risen to sufficient dignity and importance to command for its products a distinctive recognition and remunerative prices in the world's market.

Practice and Theory.

My four years' practical experience has demonstrated that theories may be very plausible and beautiful, but actual trial frequently proves them very delusive. A thousand and one little difficulties, which had not been anticipated or provided for presented themselves; expected results were frequently not obtained, and modifications had continually to be made. A model machine (especially a fruit dryer which has to contend with so many different phases and sudden changes in the atmosphere) may turn out some nice specimens or perform quite satisfactorily, when a manufacturing machine on the same pattern in regular day by day operations will prove a perfect failure. After one regular year's work, we found steam factories would make nice fruit, but their expense in construction and operation rendered them in most cases unprofitable (although a few, under especially favorable circumstances have returned fair profits), and they are now generally abandoned or reconstructed, steam being dispensed with. With our permanent cash investment of over fifty thousand dollars in steam factories, we prefer to take no more steam in ours. Any ordinary person who has ever run steam works of any kind, is aware of the trouble, vexation, delay and expense incurred. Your pumps, or your valves, or your pipes, or trap or something are in perpetual rebellion, some one of them refusing to do duty just at a time that is most inconvenient. And then that remarkable personage, a first-class engineer, is a necessity. His theoretical knowledge is always perfect, but he usually fails practically at the most critical moment; and a machine shop, a continued tinkering and an endless expense are indispensable.

The cost of heating with steam works has several times that of our improved method by direct heat. Our several years' experience has modified the Alden Process quite materially in details, but the great general principle of moving air through the fruit in currents of heated air with the current has stood the test and proved the correct method of drying or evaporating fruits and vegetables. I might say here an Alden evaporator is a vertical chamber (3 feet or 3½ feet square and 16 feet to 25 feet high), with tight fitting frames moved by endless chains, gearing, etc. The vaporizer or heater is directly under the evaporator, and the hot air ascends by natural draft up through the fruit and out of the top of evaporator which extends out of the roof.

Overdrying.

The first year we put the fruit in at the top and took it out at the bottom, on the theory that fruit to be properly dried should come out in dry air. We soon found, however, that our fruit was too dry and brittle to have the desired quality, that it would frequently brown and burn, and that some moisture would improve its quality. We attempted to remedy this by placing pans of water in bottom of evaporator to create this moisture. Further investigation and experiment shows that a reversal of the operation, putting the fruit in at the bottom and taking it out at the top, the required moisture was obtained, browning was prevented, the fruit was better in color and quality, and the work of preparation was done more advantageously by being conducted on the first floor. We also found we could use a much higher degree of heat in this manner, as the green fruit only is subjected to the highest heat, and each frame only about (this will destroy any egg, etc.) three minutes. Our small evaporator at Niles last Fall, I ran regularly at from 270 deg. to 290 deg. heat (at bottom of evaporator), and made the finest fruit we ever turned out. It may seem paradoxical and unscientific to dry fruit in moist air, and take it out at top in moist air, but our experience proves this to be the true

method—that the moisture keeps the pores open till the free water is extracted, while dry heat closes the pores, encrusting over the outside before the water is evaporated. Instead of fruit not becoming sufficiently dry when taken out in moist air, the experience at all our factories has been the reverse, a tendency to make it too dry—for when dried beyond a certain point, it becomes chippy and will not absorb (draw back as they say) enough moisture to become pliable, and cannot be packed without crumbling to pieces, thus injuring its appearance and sale. For profit, for handling, for appearance and sale, and for use, only a sufficient amount of water should be extracted to maintain its preservation—this is much less than generally supposed. We have experimented considerably in that direction, and have been surprised at the results we have obtained.

My experience has demonstrated that to dry or preserve fruit, in a commercial way, rapidly and economically, and to make it of the best quality, a rapid circulation of air in a small vertical chamber with close fitting moving frames and high heat, are essential. This will give each frame of fruit the same degrees of heat successively, being subjected to the highest first. Our evaporators, that we made at first over five feet square, we now make only three and a half feet. No regular, even heat can be maintained in any dryer or dry room of large diameter either way, especially on windy days—and not even heat can be regularly maintained in any out door dryer on such days, and fruit can not be made of good and even quality when frames are stationary, as some are subjected entirely to a high and dry heat—others to varying heat and moisture.

I find also a two story building where the fruit is taken out and packed on second floor more convenient and desirable than a single story where the fruit has to be taken out and packed in the muss and waste of preparation room.

Our three and a half feet evaporators have proved to possess even greater capacity, when run to their full extent, than we supposed. At Benton Harbor 112 bus., at Ypsilanti 108 bus., and at Colon 106 bus. apples were run in a day—a hundred bus. having been considered their full capacity.

This matter of capacity is usually theoretical and imaginary. A gentleman who thought he had invented a dryer, called on me the past year and in discussing his machine said it had a capacity of about thirty bushels in twelve hours. Upon inquiry he said he could put in a frame, when everything was favorable, every five minutes, and his frames held about a third of a peck. I figured it out for him as follows: One frame every five minutes would be twelve an hour—one third peck each would be twelve thirds pecks (one bushel) an hour, and in twelve hours twelve bushels, instead of thirty. There is nothing like figuring up in detail beforehand when you are going on theory.

There are two, and only two, kinds of dried fruit known, or quoted, in our large markets—common dried and Alden fruit—the latter ranging from 100 to 200 per cent. higher in price than the former.

Statistics of Fruit Drying.

I have been gathering some statistics for the past two or three months, and find there have been erected over two hundred Alden Evaporators, and that over two million pounds of Alden products were manufactured during 1874, over one quarter of which (or over half a million) was produced by the Michigan Alden factories. The larger portion of the Michigan factories have disposed of either all, or a majority of their products up to the present time, and we are just entering the regular season for the active dried fruit trade (February, March and April). The cost of Alden products at the different factories vary somewhat per pound, owing to the experience, care, enterprise and economy in management, though all, so far as I have learned, did a satisfactory business the past year, and several are making arrangements already to enlarge, by adding new evaporators this year. Taking apples a standard, it is cost at the various factories from three to five cents per pound to convert them into Alden fruit, depending upon the quality of the apples used, and skill and economy of management. The cost of fuel has been from one quarter to three-fifths of a cent per pound; at our Niles factory (anthracite coal from Chicago) it was three-fifths of a cent, at Benton Harbor (wood) three-tenths, at Colon two-fifths, at Cobden 39-100 of a cent per pound. The total cost of the Alden apples, of course, depended upon the price of the green, (where the proprietors worked up other apples than those from their own orchards); at this place they were located, and ranged from 10 to 13 cents. Mr. Holcomb reports his to cost eleven and one fifty-third cents per pound packed, Mr. Brush's twelve cents; at our Niles factory they cost ten and a half cents packed. I will give the result of 32 days operations at Niles last fall on apples:

Amount run.....	5,710 bus
Amount Alden fruit.....	33,960 lbs
(5 13-19 lbs to the bus.)	
Amount evaporated core skins.....	21,970 lbs
Total evaporator product.....	55,930 lbs
The green apples cost.....	\$2,388 65
(41 5-6c per bus.)	
Total cost.....	\$332 25
(3-5c per lb.)	
Labor in receiving, preparing, evaporating and packing, cost of packages for Alden apples and cores and skins, incidentals, etc.....	\$1,990 62
Total.....	\$4,701 52
The cores and skins netted cash at the factory.....	\$1,134 82
Net cost of 33,960 lbs. Alden apples packed ready for shipment.....	\$3,566 70
(10 3-4c per lb.)	

I sold the whole 33,960 lbs. to one wholesale

grocery house in Chicago for 20 cents, 15 per cent off, or 17 cents net cash. This left me a net balance after deducting freights, etc., of \$2 037 60. This same grocery house three years ago refused to buy a hurel of Alden apples, saying they could never be sold at 20 cents per pound.

Right here I wish to say a word about the market for evaporated cores and skins. I made a contract last summer with the Alden jelly works at Neshanic, N. J., for 300,000 pounds Alden evaporated cores and skins at 6 cents per pound, delivered in New York. After appropriating to our own factories what we could fill, I distributed the remainder to all the other Alden factories, and thus furnished a market for all the cores and skins made in the West—the amount furnished overran a little the 300,000 pounds, but they were all accepted and paid for in cash, as delivered during the fall.

This market will be permanent and is to be extended the present year by increased facilities of the Alden jelly works east, and probably by the erection of a jelly factory in Michigan.

The market for cores and skins and waste is an important item in the success of a drying establishment. I would also here remark that for the past two years greater difficulty has been experienced with machines for preparation than any other—our evaporators being comparatively perfect in their operations.

We have invented two or three theoretically perfect corers and slicers, but they failed practically to perform as they were scientifically constructed to do. We found no machines that were of any value for manufacturing purposes four years ago, and could induce no manufacturer of apple parers to make such a machine unless we would contract for a large number and pay all expenses for patterns. We soon found we would be compelled to buy the little machines by the car load each season, if we continued their use. Having a less favorable opinion of our own inventive powers in that direction after our previous failure, we turned our attention to making improvements on others' inventions, and proved a success in that line. We employed a manufacturer and patentee of a certain machine to make, under our instructions, one hundred machines, we paying costs of new patterns, etc. We had a heavy, durable machine constructed (weight 14 lbs.), but have been compelled to make many changes and improvements from year to year. Each year it is better, and for the present year we expect to have added such further improvements as will render it a comparatively perfect peeler, corer and slicer combined. Last year we had girls at our Niles factory that averaged each twenty bushels of good apples in ten hours—peeling, coring and slicing them. Berries—raspberries, blackberries and worleberries—we have converted into Alden fruit at a cost of 1½ cents and 2 cents per pound for the dried fruit.

Green corn has cost, including cost of the corn at 40 cents to 50 cents per hundred ears, on an average, when evaporated, from 8½ to 10 cents per pound. Alden pumpkin, including price of green at \$3 per ton, cost about 10 cents per pound.

Markets.

The success of any manufacturing industry or the growing of any products depends upon the market—its demands and value. There never has been an over-production, and never can be, of the staple fruits and vegetables. There may be, and frequently is, a lack of proper distribution of these perishable products in seasons of plenty (like green apples the past season). The remedy lies in converting them into Alden commercial products, in which shape they can be economically transported to all parts of the globe and their use extended over the whole year. Too many apples, peaches, or berries cannot be grown in Michigan, if they be properly cared for and marketed, the choice select in the green state largely, the remainder of the good fruit chiefly as Alden product; (no person is entitled to a market for poor fruit.)

Last week I had occasion to look after the markets at a few points, and found, February 1st, green apples quoted at New Orleans at \$1 to \$2 and dull; at Cleveland \$2 to \$2 25 and moderate; at Chicago \$1 50 to \$2 50 and slow; choice select \$2 75 to \$3 in these markets, showing that high grades in the duldest of markets will bring prices that will remunerate the grower in every year of abundance. Experience of shippers and packers shows that too much common and inferior fruit is shipped in green state for profit. Chicago has been full of green apples ever since last October, at extremely low prices, and I find now that there are thousands of barrels nearly or wholly decayed, and being, or to be, thrown out, are an entire loss, with the freight, commission, etc., added. The following commercial report of Chicago green apples, January 30th, gives the situation:

"The apple trade is decidedly unsatisfactory. The demand from the local trade being so light that there is no hope in this direction of ever closing out the supply, and the rapid decay is giving the bulk of stock to peddlers or the refuse pile; quoted at 50¢@75¢ per hbl. for poor to \$1@1 25 for fair to peddlers; \$1 50@1 75 for good to \$2@2 25 for choice in jobbing lots, while selections are worked off to the city, in a small way, at \$2 75@3 per bbl."

If only the strictly choice had been sent to market green, and the remainder of the good fruit had been converted into a commercial product for use that portion of the year green apples cannot be obtained, such a state of things would not have existed. Notwithstanding

ing the great apple market, Alden apples have maintained the price of 20 cents in Chicago for first grade, (quoted daily 17 to 20 cents) and five times the amount were sold from September to January last, than have been sold any previous year in the same period, and the regular active dried fruit season (February, March and April,) was not reached.

Mr. Davenport, of Davenport & Co., New York, who owns the Alden jelly works at Neshanic, N. J., and two Alden factories (one at Medina, N. Y., the other at Summerville, N. J.) told me they had \$70,000 invested in their works, and that they were now running on a government contract for 100,000 pounds Alden apples; and that the green apples they were then running upon, cost them in January only one dollar per barrel—2,200 barrels being bought in one lot at that price. He said this was their second government contract this year, and that they had just completed one for 200,000 pounds of Alden onions. For the onions they received 65 cents per pound; for the Alden apples 24 cents per pound, to be put up in 15 pound tin cans or cases, costing 3 cents, leaving 21 cents net. What other contracts for Alden products the government had made, or expects to make this year, I do not know—only I know it always purchases large quantities of Alden potatoes each year. Four years ago the United States government would only accept 2,000 pounds of Alden products on trial. The New York Alden Company have an agent in Europe, and have had one there at different times during the past two years, and the prospect for an European market for Alden products to a large amount, among the English, French and German governments, and to the shipping and general trade, is very encouraging. The Alden Company is thus doing a good work for the fruit growers in Michigan and elsewhere, in establishing a foreign demand, or market, for their fruits.

Corn Dull.

The dullest Alden product on the market has been corn. This is owing to two facts—a very large stock of canned corn at extremely low prices, and the considerable amount of hard and poor Alden corn that has been put on the market from inexperience and carelessness in manufacture. A good product of Alden corn properly put up, will always find a ready and remunerative market, in my judgment, as it is both much cheaper (costs not over half) and better than canned. Alden corn is now selling at from 16 to 20 cents in Chicago, nice, tender corn put up in one, five and ten pound packages bringing the latter figure.

Mr. Miller, of Colon, one of the most enterprising and careful manufacturers of Alden products, told me last week he had disposed of all his corn except four barrels, (he evaporated a good many thousand pounds the past year,) at 18 cents net at his factory. Alden raspberries are now out of the market; they sold readily at 50 cents per pound. Alden blackberries are now worth 35 to 40 cents, and the supply exhausted. The same is true of worleberries. Apparently an unlimited amount of these three Alden berries might now find a market. Alden peaches are scarce, and worth (peeled) 45 cents; unpeeled, 16 to 20 cents. Alden peas are a very fine article, and in good demand at 40 cents, with no supply. The difficulty as to peas is the great cost of shelling—but from some experiments last year I am inclined to think they can be evaporated satisfactorily in the pod, rendering their cost of preparation nominal. Alden pumpkin and squash, both in flour and unground, are now in fair supply and readily sold in our market at 18 to 20 cents for unground, and \$3 a case (12½ pound packages) for the flour.

From the avareness of one factory, however, the flour is not in as good a reputation as last year; the proprietor, thinking 50 cents per pound did not furnish him sufficient profit, adulterates his with corn starch largely, (costing 8 or 9 cents.) Only one party, I am happy to say, engage in such an adulterated proceeding. The popularity of Alden products depends largely upon a knowledge of the proper method of their preparation for the table—experience in cooking—they requiring different treatment from either common dried or green fruits and vegetables. The longer they are used in a family where a reasonable degree of skill and intelligence are employed in their preparation, the more popular they become.—Michigan Farmer.

DURING the year 1874 the coinage executed at the Carson mint in gold was 153,139 pieces, worth \$2,670,675, and in silver 1,459,017 pieces, worth \$1,411,781 70. The average during 1874 was three times greater than any previous year. The coinage at present consists of \$300,000 in gold and \$200,000 in silver per month. The monthly deposits amount to \$400,000 in gold and \$300,000 in silver.

GENERAL BUTLER says the Civil Rights bill does not give the negroes any private or social rights more than they have at common law in barber shops, saloons, etc., but was intended to apply to public conveyances, licensed amusements, etc.

On Monday last Andy Johnson spoke in the Senate in opposition to the Louisiana resolution. Just seven years ago the initial steps for his impeachment were taken in that chamber. His arraignment of the President was a severe one.

THE P. M. S. S. Co. offer for sale their steamers, Arizona, Ancon, Moses Taylor and Nebraska.

GRANGE DIRECTORY.

THE NATIONAL GRANGE.

OFFICERS:
Master—DUDLEY W. ADAMS, Waukon, Iowa.
Overseer—THOMAS L. COLLETT, Columbia, South Carolina.
Lecturer—T. A. THOMPSON, Early Grove, Wash. Co., Minn.
Steward—A. J. VAUGHAN, Early Grove, Wash. Co., Minn.
Assistant Steward—G. W. THOMPSON, New Brunswick, N. J.
Chaplain—REV. A. B. GROSS, Washington, D. C.
Treasurer—F. M. McDONELL, Corning, N. Y.
Secretary—O. H. KELLEY, Washington, D. C.
Gatekeeper—O. D. WIDWIDIE, Orchard Grove, Lake Co., Ind.
Ceres—MRS. D. W. ADAMS, Waukon, Iowa.
Pomona—MRS. O. H. KELLEY, Washington, D. C.
Flora—MRS. J. C. CABOTT, Clarksville, Butler Co., Iowa.
Lily—Assistant Steward—Miss C. A. HALL, Washington, D. C.
Executive Committee:
WILLIAM SAUNDERS, Washington, D. C.
D. WYATT ALKEN, Cokesbury, Abbeville Co., S. C.
E. R. SHANKLAND, Duquesne, Iowa.

CALIFORNIA STATE GRANGE.

OFFICERS:
Master—J. M. HAMILTON, Guenoc, Lake Co.*
Overseer—O. L. ABOTT, Santa Barbara.
Lecturer—J. W. A. WRIGHT, Borden, Fresno Co.
Steward—N. L. ALLEN, Salinas, Monterey Co.
Assistant Steward—W. M. JACKSON, Woodland, Yolo Co.
Chaplain—J. A. HUTTON, Yuba Co.
Treasurer—J. B. CARRINGTON, Denver, S. I. Co.*
Secretary—W. H. BAXTER, Leidesdorff street, S. F.
Gatekeeper—R. H. WARDER, Waterford, Stanislaus Co.
Ceres—MRS. G. W. DAVIS, Santa Rosa, Sonoma Co.
Pomona—MRS. S. C. BAXTER, Napa City, Napa Co.*
Flora—MRS. R. S. HEGLER, Bodega, Sonoma Co.*
Lily—Assistant Steward—MRS. S. M. GARDNER, Grayson, Stanislaus Co.*
Executive Committee:
J. M. HAMILTON, W. M. Chairman, Guenoc, Lake Co.*
I. G. GARDNER, Grayson, Stanislaus Co.*
J. C. MERRYFIELD, Dixon, Solano Co.
H. M. LEONARD, Santa Clara, Santa Clara Co.
J. M. THOMPSON, Sausalito, Napa Co.
G. W. COLBY, Napa, Yolo Co.
A. B. NALLY, Windsor, Sonoma Co.
*Address, at present, San Francisco.
State Agency:
Headquarters of Executive Committee and State Agent
at No. 6 Leidesdorff street, San Francisco.—I. G. GARDNER, General Agent.

List of Organizing Deputies.

COUNTY.	DEPUTY.	POST OFFICE.
Alameda.	Thos. Heller.	Eden.
Amador.	Ed. Vanderpool.	Pl. mouth.
Butte.	Ed. Hall.	Chico.
Butte.	Wm. M. Thorpe.	Chico.
Colusa.	G. W. Colby.	Nord.
Colusa.	J. J. Hick.	Grand Island.
Colusa.	D. H. Arnold.	Spring Valley.
Contra Costa.	A. J. Dwyer.	Antioch.
El Dorado.	A. J. Christie.	Coloma.
Fresno.	J. W. A. Wright.	Borden.
Humboldt.	H. W. Arbogast.	Arca.
Inyo.	T. J. Furber.	Bishop's Crk., Inyo.
Lake.	A. H. Miller.	Guenoc.
Los Angeles.	Bishop's Crk., Inyo.	Los Angeles.
Mendocino.	Ed. Evey.	Anaheim.
Merced.	R. M. Wilson.	Cahto.
Modoc.	H. B. Jolley.	Merced City.
Mon.	I. S. Matthews.	Fort Jones.
Monterey.	J. C. Furber.	Bishop's Crk., Inyo.
Placer.	J. D. Fowler.	Hollister.
Sacramento.	A. D. Neher.	Roseville.
San Benito.	W. S. Maclovo.	Sacramento.
San Francisco.	J. D. Fowler.	Hollister.
San Francisco.	I. G. Gardner.	San Francisco.
San Francisco.	J. C. Furber.	San Francisco.
San Joaquin.	A. Wolf.	Stockton.
San Luis Obispo.	A. J. Mohrhead.	Moro.
San Luis Obispo.	Isa to Flood.	Old Creek.
Santa Barbara.	O. L. Abbott.	Santa Barbara.
Santa Clara.	C. W. Williams.	San Jose.
Shasta.	J. T. Dismore.	Beating.
Siskiyou.	I. S. Matthews.	Fort Jones.
Solano.	J. B. Carrington.	Denver.
Solano.	R. C. Hale.	Suisun.
Solano.	J. C. Furber.	Yuba City.
Sonoma.	Geo. W. Davis.	Santa Rosa.
Sonoma.	A. B. Nally.	Windsor.
Sonoma.	T. H. Merry.	Headshurg.
Stanislaus.	J. D. Spencer.	Modesto.
Stanislaus.	A. J. Royburn.	Modesto.
Summit.	J. C. Furber.	Yuba City.
Tehama.	A. J. Loomis.	Farmington.
Tulare.	M. S. Hancock.	Kingston, Fresno.
Yolo.	Wm. Sims.	Buckeye.

General Deputies.

Alameda. Ezra S. Carr. Oakland.
Fresno. J. W. A. Wright, (W. L.) Borden.
Lake. J. M. Hamilton, (W. L.) Guenoc.
San Francisco. W. H. Baxter, (W. S.) 6 Leidesdorff St.
San Francisco. John H. Hogler, San Francisco.
Solano. John H. Hogler, San Francisco.
NEVADA.
A. J. Hatch. Reno.
Farmers desiring to organize Granges, can apply to J. M. Hamilton, (W. Master), Guenoc, Lake Co.; W. H. Baxter, (W. Secy), No. 6 Leidesdorff St., S. F.; J. W. A. Wright, (W. Lecturer), Borden, Fresno Co.; or to the nearest Deputy to their locality.

Oregon State Grange Deputies for 1875.

Farmers of Oregon, and Washington and Idaho Territories: Organize for self protection and for the enlightenment of the industry. To facilitate this work, I have commissioned the following persons as my Deputies, in this jurisdiction, to institute Granges, and to have a general supervision of our work in their respective jurisdiction.
For Douglas County—R. M. Gurney, Ten Mile P.
Cove—J. H. H. Schroeder, Ott P.O.
Jackson—D. S. R. Buck, Ashland P.O.
Lane—H. N. Hill, Junction; and George R. Hamersly, Camp Creek.
Linn—Wm. Cyrus, Seio; R. A. Irvine, Lebanon; S. D. Hale, Peoria.
Benton—Chas. E. Moor and Jacob Modie, Corvallis.
Polk—James Tatom, Dixie.
Yamhill—B. A. Witzel, Turner.
Marion—Alexander Reid, McMinville, and A. B. Henry, Lafayette.
Washington—T. D. Humphrey, H. Isboro; and Henry Buxton, Forest Grove.
Clackamas—E. Eorhes, Oregon City; and A. R. Shipley, Oswego.
Multnomah—Jacob Johnson and W. J. Campbell, East Portland.
Clatsop—J. M. McIntire, McIntire's Landing, Sauvie's Island.
Clatsop—R. W. Morrison.
Wasco—R. Mayes, The Dalles; and J. H. Douthett, Upper Ochoo.
Grant—D. B. Rhinehart, Canon City.
Umatilla—John S. White, Weston.
Baker—Wm. Brown, Baker City.
Tillamook—E. H. Holden.
WASHINGTON TERRITORY.
Walla Walla County—Wm. M. Shelton and O. Hull, Walla Walla.
Whitman—Henry Spalding, Ewartsville.
Clark—H. M. Knapp, Mill Plain or Vancouver.
Ocheltis—M. Z. Goodell, Elma.
Thurston—E. L. Smith, Olympia; and Wm. Packwood, Tenino.
King—Julius Horton, Seattle.
Pierce—John S. Bozarth, Peking.
Pacific—S. S. Markham, Chelalis Point.
IDAHO TERRITORY.
Nez Percé County—S. S. Howard, Paradise Valley; and W. C. Persson, Mt. Idaho.
Ada—M. Russel, Weiser; and L. F. Cartes, Boise City.
Any locality within this jurisdiction for which no deputy has been appointed for the organization of Granges, will receive immediate attention if application is made to me, I will attend to it in person or appoint or send a Deputy.
DANIEL CLARK,
Master Oregon State Grange, P. O. of H. Salem, Jan. 4, 1875.

The National Grange.

STATE. MASTER. ADDRESS.
ALABAMA. W. H. Chambers. Oswichee, Russell co.
ARKANSAS. John T. Jones. Helena, Phillips co.
CALIFORNIA. J. M. Hamilton. Guenoc, Lake co.
COLORADO. R. Q. Tenney. Fort Collins, Larimer co.
DELAWARE. (United with Maryland).
FLORIDA. B. B. Wardlaw. Lodi, Clay co.
GEORGIA. B. F. Wardlaw. Madison, Madison co.
ILLINOIS. T. J. Smith. Boone, CR R Wash n co.
INDIANA. Alonzo Gold. Rock Falls, Whitesides co.
IOWA. Hunley James. Marion, Grant co.
IDAHO. A. B. Smedley. Cresco, Howard co.
KANSAS. M. E. Hudson. Mapleton, Bourbon co.
KENTUCKY. M. D. Davis. Beverly, Christian co.
LOUISIANA. H. W. Lewis. Oskya, Pike Co., Miss [co.
MAINE. Nelson Ham. Lewison, Andro-cogin
MARYLAND. Jos T Moore. Sand Springs, Wont co.
MASS. Joseph P. Fenton. Greenfield, Franklin co.
MICHIGAN. S. F. Brown. Schoolcraft, Kalamazoo co.
MINNESOTA. S. E. Adams. Monticello, Wink co.
MISSISSIPPI. W. L. Hemingway. Carrollton, Carroll co.
MISSOURI. T. R. Allen. Allenton, St Louis co.
MONTANA. Brigham Reed. Bozeman, Gallatin co.
NEBRASKA. Wm B Porter. Plattsmouth, Cass co.
NEW HAMPSH. Dudley T Chase. Clarendon, Sullivan co.
NEW JERSEY. Ewd Howland. Hammonont, Atlantic co.
NEW YORK. Geo D Hineckley. Fredonia, Chautauqua co.
N. CAROLINA. Columbus Mills. Concord, Cabarrus co.
NEVADA. S. H. Ellis. Springboro, Warren co.
OHIO. Daniel Clark. Salem, Marion co.
OREGON. D. B. Manger. Douglasville, Berks co.
PENNA. Thoma Taylor. Columbia, Richland co.
S. CAROLINA. Wm Maxwell. Humboldt, Gibson co.
TENNESSEE. T. W. Lang. Columbia, Richland co.
TEXAS. E. P. Colton. Irarburg, Orleans co [co.
VERMONT. W. P. White. Burkeville, Charlotte co.
VIRGINIA. M. Kitchin. Shanghai, R kely co.
WISCONSIN. John Cochran. Waupun, Fond du Lac co.
WASHINGTON. (United with Oregon).

Oregon State Grange.

OFFICERS:
Master—DANIEL CLARK, Marion Co.
Overseer—WILLIAM CYRUS, Linn Co.
Lecturer—W. L. SMITH, Olmip, Washington Territory.
Steward—W. M. SHELTON, Walla Walla, W. T.
Chaplain—S. M. W. P. WELLS, Linn Co.
Chaplain—M. PETERSON, Jackson Co.
Treasurer—S. P. LEE, Clarkamas Co.
Secretary—J. HENRY SMITH, Linn Co.
Gatekeeper—A. A. MATHEWS, Douglas Co.
Ceres—MRS. JANE CYRUS, Linn Co.
Pomona—MRS. M. W. WELLS, Linn Co.
Flora—L. C. REID, Yamhill Co.
Lily—Assistant Steward—MRS. L. S. FOLSOM, Lane Co.
Executive Committee:
S. W. BROWN, Clarke Co., W. T.
H. N. HILL, Linn Co.
C. E. MOORE, Benton Co.
ORLEY HULL, Walla Walla.
E. FORBES, Clackamas Co.
M. FISK, Salem.

California Subordinate Granges.

(This list contains the names of Masters and Secretaries so far as reported to us, elected to serve during the year 1875. In Granges not reported I continue the names of last years officers. Secretaries and others will greatly oblige us by making needed corrections.)
EXPLANATIONS.—The P. O. address is given only where it is different from the name of the Grange.
Grange and P. O. Master. Secy.
AMADOR COUNTY.
SOUTH SUTTER. Thos. Bjyd. G. R. RICHARDSON.
ALAMEDA COUNTY.
CENTERVILLE. JAS. RHINN. M. B. STURGIS.
EDEN, Hayward's. THOS. HELLAR. WM. PEARCE.
LIVERMORE. D. INMAN. F. R. FASSETT.
SUNOL. E. M. CARR. S. W. MILLARD.
TEMESCAL, Oakland. J. V. WEBSTER. JOHN COLLINS.
CHICO. BUTTE. E. HALL. H. W. BARNES.
EVENING ST. R. Nelson. A. D. NELSON. A. M. WOODRUFF.
HAMILTON, Biggs. S. H. L. LASSALLE. ANON BROWN.
NORD, P. O. Nord. G. VAN WOEIT. PETER KERN.
CALAVERAS, J. C. LIND. M. F. GREGORY. MRS. RODGERS.
COLUSA COUNTY.
ANTELOPE VALLEY. JOHN SITES. P. PETERSON.
CENTER, Colusa. D. BEBER. MRS. CARRIE WELLY.
COLUSA, Colusa. J. O. WILKINS. R. JONES.
FRESHWATER, Colusa. P. S. PERDUE. R. A. WILKEY.
FUNK SLough, Colusa. L. D. McDOW. E. O. HUNTER.
GRAND ISLAND. Wm. Ogden. J. H. DUFF. LD.
NEVILLE. M. N. SCRIBNER. S. OSBORNE.
PLAZA, Jacinto. B. KENDRICK. J. W. BOWER.
PRINCETON. R. K. ROSE. P. H. SCOTT.
SPRING VALLEY. B. LUCAS. T. SINGLETON.
UNION, Princeton. J. F. GARR. W. W. DOLLINGS.
WILLOWS, Princeton. J. W. ZUMWALT. G. T. HICKLIN.
CONTRA COSTA COUNTY.
ALHAMBRA, Martinez. J. STRENZEL. W. A. FRAZER.
DANVILLE. M. A. WALTON. J. D. DABNEY.
DANVILLE. J. C. WOOD. J. R. SYDNOR.
P. INT OF TIMBER. H. C. MC CABB. F. W. CAREY.
WALNUT CREEK. M. S. GRAY. R. M. JONES.
EL DORADO COUNTY.
CLARKSVILLE. J. T. MILLS. L. MALTBY.
EL DORADO. G. G. CARPENTER. J. M. B. WATHERWAX.
PILO HILL, Pilot Hill. JOHN BISHOP. A. J. BAYLEY.
SUTTER MILL, Coloma. J. G. O'BRIEN. H. MAHER.
FRESNO COUNTY.
ADAMS, Big Dry Creek. T. P. NELSON. T. WYATT.
BORDEN. H. L. PATTERSON. J. FONTAINE.
FRESNO, Fresno City. D. C. LIBBY. F. DOSY.
GARRETTSON, King's R. Jos. BURNS. H. O. HIGBY.
RISING STAR, Panocho. W. W. H. GAR. W. M. POAGE.
SYCAMORE. A. C. BRADFORD. J. A. ALLEN.
HUMBOLDT COUNTY.
ELK RIVER, Eureka. T. S. STEWART. D. A. DEMERRITT.
FERNDALE. F. S. BOYNTON. E. C. DAMON.
KIA ELAITAH, Arcata. D. D. AVERILL. F. MCPHEE.
MATTOLE, Petrolia. JACOB MINER. DAVID SIMMONS.
ROHNKVELLE. H. S. CASE. S. STRONG.
TABLE BLUFF. J. SAWYER. E. CLARK.
INYO COUNTY.
BISHOP'S CREEK. A. DELL. W. T. WISWALL.
INDEPENDENCE. J. W. SYMMES. D. BEURIS.
LONE PINE. J. J. McCALL. A. H. JOHNSON.
KERN COUNTY.
BAKERSFIELD. J. R. RIL Y. P. D. JEWETT.
CUMMINGS VALY, Tehachichina. G. THOMPSON. T. VATES.
LINN'S VALY, Glenville. S. W. WOODY. S. E. REED.
NEW RIVER, Bakersfield. W. NORTON. L. G. BAKER.
PANAMA, Bakersfield. H. D. ROBB. J. F. GORDON.
RISING STAR, Panocho. E. VALLEY. J. W. ORAYCROFT.
TEHAICHIPA. J. NORRIS. J. PREWETT.
WELDON. J. B. BARTZ. JAMES SWAN.
LAKE COUNTY.
GENOC. T. SOPHER. W. C. GREENFIELD.
KELSVILLE. P. P. SHATTUCK. T. ORMONTON.
LAKEPORT. J. W. ROGGS. N. PHREAN.
LOWER LAKE. J. W. HOWARD. LUCY S. WILSON.
UPPER LAKE. D. V. THOMPSON. D. Q. MCCARTY.
LOS ANGELES COUNTY.
ALLIANCE, El Monte. J. D. DORRIS. J. W. MANSFIELD.
AZUL, El Monte. W. W. MAXEY. J. C. PRESTON.
COMPTON. J. J. DORRIS. T. V. KIMBLE.
EL MONTE, El Monte. J. T. GORDON. A. H. HOYT.
ENTERPRISE, L. Angeles. T. E. ALEXANDER. MR. ALEX.
EUREKA, Spadra. C. BORDICK. P. O. TONNER.
FAIRVIEW, Anaheim. E. B. BAKER. J. M. GUNN.
FLORENCE, Los Ang's. PHILIP HOW. R. RAMSEY.
FRUITLAND, Sta. Ana. N. O. STAFFORD. L. H. COLLINS.
LO. ANGELES. T. A. GOREY. S. A. WARDON.
LOS NIETOS. F. B. GRANLIN. W. S. REAVIS.
NEW RIVER, L. Nietos. J. NEWTON. S. G. BAKER.
ORANGE. J. BEACH. L. L. LOCKART.
SILVER, L. Nietos. R. L. MONTGOMERY. W. P. McDONALD.
SPADRA. A. D. CURRIER. JOS. WRIGHT.
VINELAND, Tustin Co. A. B. HAYWOOD. R. L. FREEMAN.
WESTMIN-TR, Westminster. M. B. CRAIG. W. F. POOR.
WELLINGTON. W. H. HAWLEY. J. N. MANN.
MARIN COUNTY.
NICASIO. P. K. AOSTIN. J. W. NOBLE.
POINT REYES. W. H. STINSON. A. H. STINSON.
TOMALES. WM. VANDERHILT. R. H. PRINCE.
MENDOCINO COUNTY.
CAHTO. H. BRADEN. H. CLARK.
LITTLE LAKE. A. P. MARTIN. W. A. WRIGHT.
MANCHESTER. B. F. MCCLURE. W. F. MCCLURE.
POMO. J. MEWHINNEY. G. B. NICHOLS.
POTTER VALY, L. A. PRESTON. MRS. A. H. SLINGERLAND.

ROUND VALLEY. C. Volo. P. HANDY. WM. FORD.
SANEL. E. M. CARR. M. GREGORY.
UKIAH. THOS. A. LUCAS. A. O. CARPENTER.
MERCED COUNTY.
BADGER FLAT, L. Banos. A. P. MERRITT. W. F. CLARKE.
CUTTON WOOD. J. A. CUTTENDEN. J. M. DALEY.
HOPETON. JOHN BUDDE. T. EGLESON.
LOS BANOS. A. P. MERRITT. W. F. SMITH.
MERCED. W. E. ELLIOT. JAS. B. RALSTON.
PLAINBURG. P. Y. WELCH. T. J. E. WILCOX.
SNELLING. E. R. HEBBORN. FRANK LARKIN.
MONTEREY COUNTY.
HOLLISTER. R. RUCKLEGG. MARY E. COWAN.
MORNING STAR, Castville. C. E. WILLIAMS. F. BLAKE.
PAJARO, Watsonville. D. M. CLOUGH. L. B. JOHNSON.
SALINAS. J. R. HEBBORN. CLARA WESTLAKE.
NAPA COUNTY.
BERRYESSA, Monticello. J. W. SMITTLE. L. H. BUFORD.
CALI TOGA. W. E. PRATT. C. H. McNEFFER.
NAPA, Napa City. J. B. SAUL. A. A. R. UTING.
PASO ROBLES. J. A. SANBARDALE. O. A. BOOTH.
RUTHERFORD, Yntville. P. S. BURRIDGE. H. W. CRABE.
ST. HELENA. J. L. WELWELL. CHAS. A. STORY.
YOUNTVILLE. J. M. MAYFIELD. F. GRIFFIN.
PLACER COUNTY.
LINCOLN. JOHN LEWELLING. A. STORY.
ROSKILL. P. D. Usher. ROBERT W. MOORE.
SHERIDAN. D. H. LONG. S. J. LEWIS.
SACRAMENTO COUNTY.
AMERICAN R. Patterson. J. A. EVANS. W. W. KILGORE.
COSUMNES, Sheldon. J. A. ELDER. W. H. ATKINS.
COK COV. J. C. ELLISON. DELOS GAGE.
ENTERPRISE, Brighton. G. J. MARTIN. W. A. ROOT.
FLORIN. L. FUSCETTE. I. J. BATES.
FRANKLIN. AMOS ADAMS. P. R. BECKLEY.
GALT. G. A. SAWYER. J. L. FIFIELD.
GEORGIANA, Rio Vista. F. M. KITTRELL. G. A. KNOTT.
SACRAMENTO. W. S. WILSON. J. P. MOORE.
SHERMAN, Emmaton. J. M. UPHAM. W. M. ROBBINS.
WALNUT GROVE. S. RUYON. J. V. PRATHER.
SAN BENITO COUNTY.
MOUNTAIN, San Benito. G. BUTTERFIELD. J. W. MATHEWS.
SAN BENITO COUNTY.
RINCON. P. M. SLAUGHTER. JOHN TAYLOR.
RIVERSIDE. W. B. RUSSELL. G. W. CARLSON.
SAN BERNARDINO. GEO. LORD. H. GOODFELL, JR.
SAN DIEGO COUNTY.
BALENA. C. O. TUCKER. MRS. C. O. TUCKER.
SAN JACINTO. T. D. HENRY. MRS. M. COLLINS.
NATIONAL RANCH. T. K. KALL. S. T. BLACKMORE.
SAN JOAQUIN COUNTY.
ATLANTA, Morano. S. MYERS. MRS. J. W. MOORE.
ASTORIA, Stockton. F. J. WOODWARD. E. J. KAYE.
COLLEGEVILLE. P. P. WARD. S. R. CHALMERS.
ELL COV. HENRY WEST. N. S. MISHNER.
FARMINGTON. WM. S. H. RODGERS. E. O. LONG.
LIBERTY, Acampo. J. M. WOOD. VICTOR JAHANT.
LINDEN. E. B. CAYWELL. JAMES WATLEY.
LOCKFORD. G. C. HOLMAN. S. S. STEWART.
LODI. JOHN PARROTT. MRS. N. CROUCH.
RUSTIC, Lathrop. H. C. WILLIS.
STOCKTON. L. L. KETCHUM. E. N. ADE.
WASHINGTON. J. W. SOLLARS. M. L. COOK.
WETTS, JOAN, Ellis. O. E. NEEDHAM. J. QUACKENBUSH.
WILWOOD. E. D. MORRISON. W. M. MONCEY.
WOODBRIDGE. EZRA KIRK. A. S. THOMAS.
SAN LUIS OBISPO COUNTY.
ARROYO GRANDE. W. H. NELSON. B. J. WOOD.
CAMBERIA. H. H. IVINS. H. OLMSTEAD.
COTO CITY. O. Y. STANLEY. JAS. ALL N.
OLD CREEK. R. C. SWAIN. CHAS. S. CLARK.
PASO ROBLES. H. W. HART. J. E. ROBERTS.
SAN LUIS OBISPO. WM. JACKSON. E. L. REED.
SUMMIT, Paso Robles. J. V. N. YOUNG. A. T. FOSTER.
SAN MATEO COUNTY.
CRESCENT. H. M. JEWELL. JAMES COMPTON.
LA HONDA. M. WOODHAMS. MRS. J. E. WOODHAMS.
OCEAN VIEW. J. P. DUNN. W. S. WILSON.
PESCADOR. R. V. WEEKS. H. B. SPRAGUE.
SAN MATEO. A. F. GREEN. C. E. ROWE.
SANTA BARBARA COUNTY.
CARPENTERIA. S. H. OLMSTEAD. HENRY FISH.
CONFIDENCE, Guadalupe. J. P. CORLEAND. J. P. AUSTIN.
SANTA BARBARA. O. J. ABBOTT. V. F. RUSSELL.
SANTA MARIA. S. G. LOCKWOOD. S. J. NICHOLSON.
SANTA CLARA COUNTY.
GILROY. W. Z. ANGENY. H. COFFIN.
MAYFIELD. F. W. WESSHAAR. J. FORCE.
SANTA JOSE. W. E. JERSON. RUPERT FISH.
SANTA CLARA. S. J. JAMESON. I. A. WILCOX.
SARATOGA. WILLIS MORRISON. MRS. J. FARWELL.
SANTA CRUZ COUNTY.
BEN LOMOND, Sta Cruz. JOHN WILSON. JAS. BURNS.
SANTA CRUZ. J. P. DUNN. T. P. HENRY.
WATSONVILLE. J. McCOLLIN. SARAH REDMAN.
SHASTA COUNTY.
COTTONWOOD. G. G. KIMBALL. JOHN BARRY.
MILLVILLE. J. P. WEBB. GEO. W. WELCH.
READING. J. P. DUNN. S. J. R. GILBERT.
SIKIYOU COUNTY.
JETNA. JOHN McBRIDE. T. S. WILSON.
MT. BOLIVAR, Callaban's R. M. JAYEN. J. A. COLE.
SOLANO COUNTY.
BINGHAMPTON. A. BEARDSLEY. E. A. BEARDSLEY.
DENVERTON. J. C. BRINGTON. G. C. ARNOLD.
DIXON. J. C. MERRYFIELD. J. A. ELLIS.
ELMIRA. J. A. CLARK. M. D. COOPER.
MONTEVISTA, Colusa. T. HOOPER. C. K. MARSHALL.
RIO VISTA. A. B. ALESI. JOHN H. GARDNER.
SANTA CLARA, Coralia. W. M. NORTON. J. R. BAKER.
SUNUN VALLEY. J. M. JONES. MRS. R. B. CANOVAN.
VACAVILLE. E. K. THURBER. OSCAR DORRIS.
VALLEJO. S. S. DRAKE. CHAS. B. DEMING.
SONOMA COUNTY.
BENNETT VALY, Sta Rosa. G. N. WHITAKER.
BLOOMFIELD. Wm. H. WHITE. A. B. GLOVER.
BUDOCK. E. S. PIERCE. E. B. DONEY.
CLOVERDALE. CHAS. H. COOLEY. F. W. DAVENPORT.
GEYSERSVILLE. C. P. MOORE. H. WIEDERSHEIM.
HEADSBURG. B. B. CAPPELL. W. N. GLADDEN.
ITALUVA. W. W. CHAPMAN. FREMAN PARKER.
PITALUVA. GEO. DAVIS. J. A. O'BRIEN.
SANTA ROSA. J. N. HODGSON. E. B. BANGS.
SONOMA. Wm. MCP HILL. T. S. COOPER.
TWO ROCK. JOHN R. DOSS. J. C. PUUVINE.
WINDSOR. E. H. BARNES. EDGAR LINDSEY.
STANISLAUS COUNTY.
BONITA, Crow's Ld's. J. A. TRIVELL. R. B. CROOK.
CERES. H. W. BROUSE. R. R. WHITMORE.
GRAYSON. Wm. LOVE. C. A. LANDER.
OAK DALE. A. S. ENERY. C. B. INGALLS.
ORISTIMBA, Hill's Fr. W. J. MILLER. E. H. ROBINSON.
SALIDA, Modesto. V. W. T. E. H. ELMORE.
STANISLAUS, M'dsto. V. E. BANGS. E. R. TURNER.
TURLOCK. S. C. CAMPBELL. W. S. ROBINSON.
WATERFORD. S. M. GALLUP. J. BOOTH.
SUTTER COUNTY.
NORTH BUTTE. B. R. SPILMAN. J. D. DOW.
SOUTH SUTTER. THOS. BOW. GEO. R. FICHARDSON.
SUTTER, Meridian. C. B. SMITH. J. M. GLADDEN.
YUBA CITY. B. B. WATSON. J. HONDY.
FARMINGTON. C. F. FOSTER. S. H. LOOMIS.
NEW SALEM, Paskeno. O. HARRIS. W. T. HAINS.
RED BLUFF. R. H. BLOSSOM. C. E. FONDA.
TULARE COUNTY.
CHRISTMAS, Visalia. W. M. NORTON. C. H. ROBINSON.
D'PREFE, Paskeno. G. F. JEFFERDS. W. PENNEBAKER.
FRANKLIN, Grangeville. W. L. MORETON. G. W. CAMP.
LAKE, Grangeville. M. S. BARCOCK. MRS. E. D. SIMMONS.
MOUNT WHITNEY. G. W. DUNN. A. THOMPSON.
TULARE. D. E. WILSON. VICTORIA WRIGHT.
TULE RIVER, Portville. E. H. BAKER. MRS. J. GILMER.
VISALIA. T. FOWLER. J. O. BLAKELEY.
WOODVILLE. J. A. SLOVER. J. STEWART.
TUOLUMNE COUNTY.
SONORA. G. C. SOULIER. R. F. WILLIAMS.
OJAI, Nordhoff. C. E. SOULE. J. HOBART.
PLEASANT VALLEY. W. P. RAMSEYER. W. O. WOOD.
SAN PEDRO, Huemaco. W. H. VINYARD. D. D. DENORE.
SATICOV. MILTON WASON. MRS. A. BAKER.
SES PE SAN B'ventura. S. A. GIBBERSON. T. MARPLE.
VENTURA. S. A. GIBBERSON. J. WILKETT. C. PREBBLE.
YOLO COUNTY.
ANTELOPE. W. J. CLARK. T. F. HUGHES.
BUCKEYE. Wm. SIMS. L. MOODY.
CACHE CREEK. S. A. HOWARD. R. B. BAKER.
CAPA RILEY. J. N. ROBERTS. HOWLAND BOWEN.
DUNAVILLE. J. U. CAMPBELL. W. HAND.
HUNGY HOLLOW, Ont Val's. T. A. GALLUP. MRS. PARTZ.
WEST GRAFTON, Yolo. A. W. MORRIS. G. W. PARKS.
YOLO, Woodland. J. A. HUTTON. D. SCHINDLER.
MARYSVILLE. C. G. BOCKIUS. JAS. M. CUTTS.

Nevada Subordinate Granges.

ALFALFA, Reno, Nev. G. W. HUFFAKER. T. B. KLOHER.
EAGLE VALLEY. G. W. CHEDIO. A. F. GILBERT.
OAKSON VALLEY. Genoa. R. J. LIVINGSTON. J. S. CHILD.
WASHOE VALLEY, Franktown. ELIAS OWENS. M. G. D.
WATERS.
WILLINGTON, No. 6, Esmeralda Co. A. H. HAWLEY. M. J.
J. N. MANN. S.
MERIT, Mason Valley, Esmeralda Co. KIMBER CLEAVER.
M. CLARK CLEAVER. S.
PARADISE. B. F. RILEY. M. J. W. PERKINS. B.

California District and County Councils.

ALAMEDA COUNTY—JOEL RUSSELL, Haywood, M.; T. HELLAR, S.
LOS ANGELES AND SAN BERNARDINO DISTRICT—T. A. GAREY, Los Angeles, M.; J. F. MARQUIS, Anaheim, S.
MENDOCINO COUNTY, Ukiah City; L. F. LONG, M.; J. A. KNOT, S. Sanel.
MONTEREY AND SANTA CRUZ DISTRICT—J. R. HEBBORN, M.; A. F. RICHARDSON, S.
NAPA DISTRICT—J. D. BLANCHARD, M.; H. W. HASKELL, S.
SACRAMENTO, EL DORADO AND PLACER DISTRICT—Omit not reported.
SAN LUIS OBISPO COUNTY—A. J. MOTHERSHEAD, M.; J. M. MANNON, S.
SANTA CLARA COUNTY—H. M. LEONARD, M.; I. A. WILCOX, S. Regular meetings every three months, alternately at Santa Clara and San J. Co.
SANTA BARBARA AND SAN LUIS OBISPO DISTRICT—Officers not reported.
SOLANO COUNTY—J. B. CARRINGTON, M.; J. M. JONES, S.
SONOMA COUNTY—MCPHERSON, M.; S. T. COULTER, S.
STANISLAUS COUNTY—R. K. WARDER, M.; VITAL E. BANGS, S.
TULARE COUNTY—W. S. BARCOCK, M.; J. S. URTON, S.
VENTURA COUNTY COUNCIL—DANIEL ROULLISH, M. JAS. S. HARVEY, Sec'y.
WEST SAN JOAQUIN DISTRICT (Merced, Santa Joaquin and Stanislaus counties)—W. J. MILLER Oristimba, M.; THOMAS A. CHAPMAN, Oristimba, S.

A Noble Helper.

Compliments like the following are richer than fine gold—incentives to us to do our level best for the readers of the RURAL PRESS:
SAN LUIS OBISPO, Nov. 23, 1874.
Messrs DEWEY & Co.,
Gente:—Please find inclosed a check on Messrs. Stuart & Elder for \$4.00, to pay my subscription for the Pacific Rural Press for one year. Some two years since I was induced, at the solicitation of Mr. F. M. Shaw to become a subscriber for your invaluable paper. Have been a constant and attentive reader of its columns since that time. My interest increases with the reading. Believing, as I do, that no intelligent farmer, nor any one who wishes to become so, can afford to do without it, you can write me down as a life subscriber. I believe there was a club made up in our Grange for the Pacific Rural Press. My name was one of that club. Shall exert myself to have that club subscription continued and enlarged this year. I believe I also subscribed for a copy sent to Mr. W. R. S. Lake P. O., Ohio. When that subscription is about to expire please notify me, as I wish to renew it, and oblige,
Yours very respectfully,
G. S.

CALIFORNIA PORTRAYED.

The columns of the PACIFIC RURAL PRESS from January 1, 1870, contain the most complete and reliable information concerning the soil, climate, products and capabilities of the different sections of California, of any publication yet made. Neither new comers or old settlers in the rural districts can well afford to do without this enterprising and leading agricultural weekly. It is a good helper at home and a welcome guest abroad.

The Rural Press and the Grangers in Montana Territory.

EDITORS PRESS:—I would not be without the Press on any account—the best Granger and farmer paper now published that I know of—and I never will be without it if favored as I have been in the past. We, the farmers of Montana, have organized ourselves in the farmers (Grangers) movement. H. H. MOORE.
Bozeman, M. T., December 27, 1874.

The Best Agricultural Paper in America.

PORTERVILLE, February 10, 1875.
TO THE EDITORS AND PUBLISHERS OF THE RURAL PRESS:—Dear Sirs: I am going to change my residence, and I will take the Rural Press again, when I get settled, and will get back numbers. I can say without flattery you that it is the best agricultural newspaper in America, and I will use my influence in your behalf. Yours with respect, JOHN MCINTIRE, JR.

Up To The Times.

EDITORS PRESS:—I am much pleased with your papers, particularly the Rural Press. It seems to be fully up to the times, and of a high moral tone.
LE ROY WHITEFORD,
Patentee Whitford's Potato Coverer

The PACIFIC RURAL PRESS is, for the Pacific Coast, the most valuable paper published in the Union. It is precisely adapted for this part of the world. As an exchange it is invaluable, giving a complete view of climate and crop all over the coast. The only fault about it is that the mailing clerk forgets us sometimes. Will he take a hint?—Southern Californian, February 18th.

"The Farmers' Friend."

DEWEY & CO., Gente:—I assure you there is no more welcome sight to "Our Folks" than the Press, and I had far rather do without my dinner than fail to receive your valuable paper each week.
G. W. C.

BREEDERS' DIRECTORY.

PURCHASERS OF STOCK WILL FIND IN THIS DIRECTORY THE NAMES OF SOME OF THE MOST RELIABLE BREEDERS. OUR RATES: Six lines or less inserted in this directory at 50 cts a line per month, payable quarterly.

CATTLE.

R. ASHBURNER, Baden Station, San Mateo Co., Cal., breeder of Short horn cattle. Pure Bred Bulls for sale, from cows of choice milking strains.

J. BREWSTER, Galt Station, Sacramento Co., Cal., breeder of Short-Horn Cattle.

J. D. CARR, Gabilan, Monterey Co., Cal., breeder of Trotting Horses, Short-Horn Cattle, Thoroughbred Spanish Marino Sheep and Swine.

A. MAILLARD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.

W. L. OVERHISER, Stockton, San Joaquin Co., Cal., breeder of Short-Horn Cattle and Berkshire Swine.

PAGE BROTHERS, 304 Davis street, San Francisco, (or Cotate Ranch, near Petaluma, Sonoma Co.): Breeders of Short-Horns and their Grades.

STANTON & POWERS, Sacramento, Cal. Breeders of Jersey Heifers and Bull Calves at low rates. Address L. C. Powers, Sacramento, Cal.

MOSES WICK, Oroville, Butte Co., Cal., breeder of Short-Horn Cattle. Young bulls for sale.

SHEEP AND GOATS.

H. F. BUCKLEY, Hopeton, Cal. Thoroughbred also 1/2 and 3/4 Cotswold grade sheep.

MRS. ROBERT BLACOW, Centerville, near Niles Station, Alameda Co., Cal. Pure-Blooded French Merino Sheep for sale.

THOS. BUTTERFIELD & SONS, Hollister, San Benito, Cal. Importers and breeders of Angora Goats and Sheep.

N. GILMORE, El Dorado, El Dorado Co., Cal., importer and breeder of Angora Goats.

LANDRUM & RODGERS, Watsonville, Santa Cruz County. Pure-Bred Angora Goats and Cotswold Sheep for sale.

SEVERANCE & PEET, Niles, Alameda Co., Cal., breeders of Thoroughbred Spanish Merino Sheep.

A. G. STONESIFER, Hill's Ferry, Stanislaus Co., Cal., breeder of Pure-Blooded French Merino Sheep.

L. M. SHIPPEE, Stockton, Cal. Importer and Breeder of Spanish Merino Sheep, Durham Cattle and Essex Swine.

POULTRY.

GEO. B. BAYLEY, Cor. 16th and Castro streets, Oakland, Cal. Imported Brahmas and other choice Fowls for sale.

ALBERT E. BURBANK, 43 and 44 California Market, San Francisco, Importer and breeder of Fancy Fowls, Pigeons, Rabbits, etc.

M. EYRE, Napa. Bronze Turkeys, Emden Geese, Choice Fowls, Pigeons, Rabbits, Ferrets.

WILLIAM KNOWLES, Brooklyn, Alameda Co., Cal., has for sale Eggs for Hatching, carefully packed, from pure-bred Bronze Turkeys, at \$7.50 per dozen; Brown Leghorns at \$4.00 per dozen; Houdans, White Leghorns and Buff Cochins at \$4.00 per dozen; two dozen for \$5.00. Sent C. O. D. to any address.

Mrs. L. E. McMAHAN, Dixon, Solano Co., Cal. Bronze Turkeys now ready for sale from the best imported stock; also eight varieties of choice Chickens; Eggs in season can be purchased very reasonably.

Mrs. L. J. WATKINS, Santa Clara. Premium Fowls. White Leghorn, S. S. Hamburg, Game Bantams, and Aylesbury Ducks. Also, Eggs. 21v8-3t

J. Y. WILSON. WM. FAULL. W. L. MERRY

WILSON, MERRY & CO.,
Provision Packers

And Dealers in

SALTED AND SMOKED MEATS,
Lard, Etc.

PROP'S BLACK POINT PACKING HOUSE.

We respectfully call the attention of Farmers and Stock Raisers to the fact that we are always prepared to purchase hogs, cattle and sheep at full market prices, for Cash, and shall be glad to answer promptly any inquiries addressed to us on the condition of the Market.

Office No. 223 Sacramento St., Near Front. San Francisco.

Woodland Poultry Yards.

W. J. PRATHER, - - Proprietor.

PRICE LIST:

Eggs Per Dozen.	Fowls Per Trio.
Light and Dark Brahmas.....	\$3.00
Buff and Partridge Cochins.....	5.00
White Cochins.....	5.00
White Polands.....	5.00
Houdans.....	4.00
S. and D. Spangled Hamburgs.....	6.00
White Leghorns.....	4.00
Brown Leghorns.....	6.00
Golden Seabright Bantams.....	5.00
Bronze Turkeys.....	8.00
Rouen Ducks.....	4.00
Black Cayuga Ducks.....	4.00
Aylesbury Ducks.....	4.00

LOOK!

ALBERT E. BURBANK, Importer and Breeder of Fancy Fowls, Pigeons, Rabbits, etc. Also Eggs for hatching from the finest of imported stock. gg and Fowls at reduced prices. send for Price List.

ALBERT E. BURBANK, 1v8-3m 43 & 44 Cal. Market S.F.

\$5 to \$20 Per Day at home. Terms free. Address G. STINSON & Co., Portland, M.

POISON! POISON!
WAKELEE'S PATENTED

Granulated Squirrel Exterminator.

A NEW AND MOST DESTRUCTIVE POISON FOR THE WORST PEST OF CALIFORNIA.

For years the farmers of the Pacific Coast have been spending money in experimenting to find a safe, cheap and efficient way of ridding their grain fields of their worst enemy, THE SQUIRREL, which destroy Millions of Dollars' worth of grain every year; and unless a strong and combined effort is made to kill them off, they will become more numerous every year.

Wakelee's Granulated Squirrel Exterminator

Is just the thing the farmers of California have been looking for. It is SURE DEATH. One or two grains of it will kill a Squirrel so quick that if it is five feet from his hole it dies before it gets there. The Poison is put up day and in granular form, and easily handled; in one pound tins at \$1 per pound. It goes a great way, as 10 to 15 grains of it are sufficient to place at each hole. Also successfully used for killing Gophers and Rats. It has been thoroughly tested in different parts of the country, and gave universal satisfaction. It is kept and sold by druggists and dealers generally through the country. The following are some of my testimonials, viz:

SANTA OLARA, April 20th, 1874.
H. P. WAKELEE, Esq. - Dear Sir: Squirrel Exterminator was used according to your directions, on my Quince Farm with excellent success, and in my estimation is just the thing the farmers want to kill their Squirrels. Yours, J. R. ABQUILLO.

SAN LEANDRO, Cal., April 3d, 1874.
H. P. WAKELEE, Esq. - Dear Sir: I have given your Squirrel Exterminator a fair trial and find it to be an economical and very destructive preparation, and I can safely recommend it to our farmers. Yours, J. M. ESTUDILLO.

DOUGHERTY STATION, Alameda Co., Cal.
Mr. H. P. WAKELEE, San Francisco: I have used your Squirrel Poison and found it to be just what you claim for it. It is sure death. Yours, C. M. DOUGHERTY.

H. P. WAKELEE, Druggist,
Cor. Montgomery and Bush streets, S. F.



This is a Sure Cure for Screw Worm, Scab and Foot Rot in Sheep. It also kills Ticks, Lice, and all Parasites that infest Sheep.

Prevents scratching and greatly improves the quality of the wool. One gallon of the Dip properly diluted with water will be sufficient to dip one hundred sheep, so that the cost of dipping is a mere trifle, and sheep owners will find that they are amply repaid by the improved health of their flocks.

This Dip is guaranteed to cure when used according to directions, and to be vastly superior to Corrosive Sublimite, Sulphur, Tobacco, and other remedies which have heretofore been used by farmers.

Circulars sent, post paid, upon application, giving full directions for its use, also certificates of prominent sheep growers who have used large quantities of the Dip, and pronounce it the most effective and reliable known Cure and Preventive of Scab and other kindred diseases in Sheep. mrl3-bp

Union Box Factory,
GEO. W. SWAN & CO.,

115 and 116 Spear St., bet. Mission & Howard
SAN FRANCISCO.

Apple, Pear, Plum, Peach, Cherry, Grape, Orange, Lime and Wine Cases.

Tomato, Potato, Fig and Raisin Boxes. Strawberry, Raspberry and Blackberry Chests and Drawers, and Baskets for all kinds of Berries.

Peach and Picking Baskets, Butter Chests and Boxes, Cheese Boxes, Square and Round Egg Carriers. Drums for Figs, Cherries, Raisins, and for other Dried Fruits.

Free Packages—Boxes not to be returned—a good article, costing less than Sawed Boxes.

Lard Caddies, Coffee and Fruit Caddies.

Turkey and Chicken Coops, Bee-Hives, Etc. Packing Boxes for Dry-Goods, Cigars, Candies, Canned Fruits, Honey, Macaroni, Crackers, Sugar, Soap, Boots, Etc.

In fact, every style of Boxes manufactured in the Union, and turned out in the Best Style at Favorable Prices. Orders from the country well attended to

J. & P. N. HANNA,
IMPORTERS AND DEALERS IN

Grain, Wool, Ore and Bean Bags. Flax, Cotton and Linen Twines.

COTTON, DUCK, RAVENS AND DRILLS—33, 36, 40 and 45-Inch Wide Duck; 8, 10, 12 and 15-Ounce Duck.

Ore Bags, Tents and Hose
MADE TO ORDER.

Nos. 308 and 310 DAVIS ST.,
San Francisco, Cal.

BELLA UNION HOTEL,
JOHN F. MILLER, Prop.,
SAN BERNARDINO, CAL.

This fine hotel is situated in one of the best parts of the city, and the proprietor will at all times use his best endeavors to promote the comfort of his guests.

Lands and Homes for Sale.



5,500 ACRES

Of the best portion of the old NOMELOCKE RESERVATION, in T. Hama County, for sale very low; only five dollars per acre; one-third down, one-third in one year and one-third in two years, with interest at one per cent per month. Will be sold all together or in two parcels. This is one of the finest tracts of grazing land in Northern California; is abundantly watered by numerous perpetual springs and has two miles of the Elder Creek, a clear mountain stream. Its grass never fails from drouth, and is of the best quality for sheep and has no clover burr. 800 acres of level plow land; timber for posts, fuel, etc. Enquiries of ALLEN WILCOX, Los Angeles, or F. B. WASHINGTON on the tract twenty miles west of Tehama.

FOR SALE OR RENT

On Favorable Terms.

Six Thousand Acres of Improved Tule Land in San Joaquin County. Apply to

STEVENS, BAKER & CO.,

N. W. Cor. Sacramento and Davis Streets, S. F.

FOR SALE.

In the Riverside, New England and Santa Ana Colonies, in the valley of the Santa Ana river, San Bernardino county, California, twenty thousand (20,000) acres of clean, rich, level, valley land, with an abundance of water for irrigation. There is no better land in the State for the orange and all other semi-tropical fruits, and no finer climate in the world. Inquire of W. T. SAYWARD, 429 Montgomery street, San Francisco; S. C. EVANS, Fort Wayne, Indiana; C. I. HUTCHINSON, 314 California street, San Francisco; L. UPSON, General Agent, Riverside, San Bernardino county, Cal.

THE TURBINE.



THE INVENTOR OF THE

DEXTER WINDMILL

Has made new and useful improvements in Windmills, and now feels confident of having the SIMPLEST, CHEAPEST, MOST DURABLE, and

ONLY PERMANENT WINDMILL
IN THE WORLD.

SIMPLEST, because it is less complicated; CHEAPEST, because it never needs repair, standing on a firm foundation; MOST DURABLE, because it is all under cover, and has less rigging to get out of order; ONLY PERMANENT, because the only Windmill in the world that has never been injured by storms. Hundreds of people, who have thought the Dexter perfect, will be glad to observe the SUPERIORITY OF THE TURBINE over all predecessors. Although much improved, the price of mills remain the same as formerly. Persons who study their own interest will investigate the TURBINE before purchasing any other.

Territory for sale outside of California, at reasonable rates and easy terms.

Mills Built to Order of the Best Material, and at the Shortest Notice.

For further information regarding Mills or Territory, address,

A. H. SOUTHWICK,

P. O. Box 1385, San Francisco; or
P. O. Box 25, Oakland, Cal.

mrl3-lam-bp

For Bleaching or Washing
In Cold or Warm Water.

FALKINBURGH & CO'S

GRANGER SOAP

HAS NO EQUAL.

Don't fail to give it a trial, and be assured of a saving of money, time and labor. It speaks for itself. Warranted to accomplish more and do greater execution than any other soap. It is pressed, wrapped and perfumed.

ONCE USED, ALWAYS USED.

Sold by the principal Grocers throughout the country. Manufactured by

FALKINBURGH & CO.,

Oregon St., below Front, bet. Washington and Jackson, San Francisco, Cal. 4v9-10p

Live Stock Notices.



Pure Blooded French Merino Rams

For sale by MRS. ROBERT BLACOW, of Centerville, Alameda County, Cal., near Niles Station, on the Western and Southern Pacific Railroad.

These Sheep are guaranteed of pure descent, from the French Imperial Flock at Rambouillet, and are equal, if not superior, to any of this breed in size and quality of wool, and are proved to be the heaviest shearers in the world.



SULTAN SECOND.

Angora or Cashmere Goats of pure blood and all grades for sale in lots to suit purchasers. Location, four miles from Railroad Station, coming with all part of the State. For particulars, address N. Gilmore, El Dorado, El Dorado County, Cal.

The Imported Draft Stallion,
ADOLPH,

Will make the Season of 1875 at the Stable Proprietor,

COR. FOURTEENTH AND MISSION STREETS,
SAN JOSE.

COMMENCING MARCH 1st, AND CONTINUING FOR NINETY DAYS.

Adolph was imported from Belgium to Illinois in June, 1871, and to California in October last. He is a pure-bred Draft Horse, of the French Farnamback stock, of a dark brown color, good life, kind disposition and fine movement for a horse of his size. Is seven years old, 16 1/2 hands high, and weighs 1,650 pounds.

Terms, For the Season - - - \$25.00. Payable during the season in U. S. gold coin, or \$10 paid down and \$15 payable when mare is known to be with foal.

Mares from a distance can be kept on good pasture and cared for at \$4 per month. All accidents and escapes at the risk of the owner.

I have imported 12 head of the same stock of horses from Illinois, and invite examination and comparison with any stock of the class in the State. Four three-fourth blood stallion colts for sale. Can be seen on my farm, three and one-half miles east of the city.

L. V. WILLITS.



GABILAN HERD

Spanish Merino Sheep.

I have just purchased of Mr. George Hammond, of Vermont, three car-loads of Spanish Merino Sheep, (335 head, Ewes and Bucks) which, with others that I purchased last Fall, (also direct from Vermont) makes my band of Thoroughbred Spanish Merinos about 650 head.

I am prepared to sell both Bucks and Ewes, of Pure Blooded Spanish Merinos—as good as can be had in the World—so says Mr. Hammond. Parties interested will please give me a call. I am ten miles from Salinas City, Gabilan P. O., Monterey county.

J. D. CARR.

N. B.—I have also Good Graded Bucks for sale, and can dispose of some Good Graded Ewes. J. D. C.

Thoroughbred Spanish Merinos
FOR SALE.

60 one and two-year old Thoroughbred Spanish Merino Rams, California bred, from Ewes imported from Vermont, and sired by Severance & Peet's Celebrated Ram "Tremont," and by their Ram "Green Mountain," which took the first premiums at the Bay District and State Fairs. Last shearing—35 1/2 lbs.—years' growth.

Also, about 100 Ewes and Lambs, all of "Green Mountain" Stock, bred this year.

B. F. WATKINS,

Santa Clara, Cal.

Miscellaneous Notices.

Grangers' Bank of California

INCORPORATED APRIL 27th, 1874.

Capital \$5,000,000, in 50,000 Shares
of \$100 each.

Directors:

PRESIDENT—JONATHAN V. WEBSTER..... Alameda
V. PRESIDENT—O. J. CRESSEY..... Stanislaus County
THOMAS MCCONNELL..... Sacramento
JOHN G. HILL..... Bolano County
J. V. WEBSTER..... Alameda County
JUSTICE C. MERRYFIELD..... Contra Costa County
J. LEWELLIN..... Napa County
GILBERT W. COLBY..... Butte County
J. P. CHRISMAN..... Contra Costa County
F. J. WOODWARD..... San Joaquin County
C. S. ABBOTT..... Monterey County
F. A. CRESSEY..... Secretary.

Office, 415 California Street,

SAN FRANCISCO. - - CALIFORNIA

The Bank was opened on the first of August, 1874, for the transaction of ordinary Banking business.

Current Accounts are opened and conducted in the usual way, and interest at the rate of $\frac{1}{2}$ per cent per month is allowed on the minimum monthly balance.

Deposit Receipts in sums of \$50 and upward received, and receipts given for the amounts, repayable on 30 days' notice of withdrawal. These deposits bear interest at rates varying with the current rate of discount.

Deposits for Fixed Periods are received, and interest allowed at the following rates: Three months, 6 per cent.; Six months, 7 per cent.; One year, 8 per cent. A share of the patronage of the public is solicited.

California Farmers Mutual
Fire Insurance Association.

Office, 6 Leidesdorff St., - San Francisco.

Directors:

A. WOLF, A. W. THOMPSON, I. C. STEELE,
I. G. GARDNER, J. C. MERRYFIELD, J. D. BLANCHARD,
G. P. KELLOGG, Treas.

Finance Committee:

I. G. GARDNER, J. O. MERRYFIELD, A. W. THOMPSON

Trustees:

J. M. HAMILTON, Lake Co. I. C. STEELE, San Mateo Co.
J. C. MERRYFIELD, Solano Co. A. B. NALLEY, Sonoma Co.
G. W. COLBY, - Butte Co. O. S. ABBOTT, S'ta Barb'a Co.
H. B. JOLLEY, - Merced Co. A. W. THOMPSON, Sonoma Co.
A. WOLF, San Joaquin Co. E. W. STEELE, S.L. Oblispo Co.
J. D. BLANCHARD, Pres't. W. H. BAXTER, Sec'y.

This association is organized for the purpose of affording the farmers of this State the means of safely insuring against loss by fire, at actual cost of insurance, without being connected with city risks. a22-tf

Books Published by

A. ROMAN & CO.,
SAN FRANCISCO.

THE RESOURCES OF CALIFORNIA. By John S. Hittell. Sixth Edition, rewritten. "The most complete and comprehensive work of the kind." One volume, 12mo., cloth.....\$1 75
One volume, 12mo., paper.....1 25
NEVADA AND CALIFORNIA PROCESSES OF GOLD AND SILVER EXTRACTION. By Guido Kuestel. The best practical work on the subject. 8vo., cloth.....4 00
8vo., leather.....5 00
LEGAL TITLES TO MINING CLAIMS AND WATER RIGHTS IN CALIFORNIA. By Gregory Yale. 8vo., leather.....5 00
TREATISE ON SILK AND TEA CULTURE AND OTHER ASIATIC INDUSTRIES. Adapted to the soil and climate of California. By T. A. Kendo. 116mo., cloth.....50
SULPHURETS. What they are, how Concentrated, how Assayed, and how Worked, with a chapter on the Blow-pipe Assay of minerals. By Wm. Barstow, M. D. 12mo., cloth.....1
A liberal discount to Booksellers and Newsdealers from the above prices.
Any of the above works will be sent, postage prepaid, on the receipt of the price, by the publishers,
A. ROMAN & CO., No. 11 Montgomery St., S. F.

THE CELEBRATED

H. H. H.

HORSE MEDICINE

IS STILL AHEAD OF ALL OTHERS.

The Wholesale Druggists of San Francisco, give evidence of its appreciation throughout the State, by and rapidly increasing orders. We pledge it a cure for SPAVINS, WIND GALLS,

SWEENY, SCRATCHES,

LAME AND STIFF JOINTS,

CALLONS, LUMPS,

AND ALL BLEMISHES,

SPRAINS OR BRUISES.

It is a household blessing and no family should be without a bottle in the house. For sale everywhere.

WILLIAMS & MOORE, Prop's.,

25v8-6m

Stockton, Cal.

GREAT EASTERN AND WESTERN

Horse and Mule Market,

Cor. Fifth & Bryant Streets, San Francisco.

A choice stock of Carriage, Draft and Farm Horses on hand, and constantly being received from the East. All classes of Horses and Mules purchased and sold.

WASHBURN & RANDALL, Props

The Popular Farm Journal.

-THE-

AMERICAN PATRON

Is acknowledged by all who have examined it to be the very best paper published in the interest of the Order of

Patrons of Husbandry

And furnished at the low rate of

One Dollar and Twenty-five
Cents Per Year,

With liberal reductions to clubs and Granges, and handsome Premiums to canvassers. Send for free sample copy and be convinced.

THE AMERICAN PATRON has an ably-conducted Editorial Department, dealing each week strong blows at monopoly in every form, clearly elucidating the great principles which underlie the agitation known as the

Farmers' Movement.

THE AMERICAN PATRON is a large eight-page paper, containing forty broad columns of elegant reading matter. The Agricultural Department is made up of original and select matter of general interest to the farmer.

This paper is not the rebash of a daily paper, but all the matter is carefully selected and prepared for this edition alone.

Important Inducements to Granges.

Specimen copies sent free on application.

Address all communications to

J. K. BARND, Publisher.

Findley, Ohio.

ARMES & DALLAM,

WHOLESALE DEALERS IN

WOOD AND WILLOW WARE

Baskets, Brushes and Twines,

Clothes Wringers,

Doty's Washing Machines,

AND

GENERAL HOUSE FURNISHING GOODS

And Manufacturers of

BROOMS, PAILS, TUBS, WASHBOARDS,

DASH,

CYLINDER,

THERMOMETER,

AND SQUARE BOX

CHURNS,

215 and 217 Sacramento St., San Francisco.

THE ALDEN

Fruit Preserving Company

OF CALIFORNIA.

Is now prepared to sell rights and furnish the necessary machinery for using the "ALDEN PROCESS," acknowledged to be the best method known for preserving Fruits, Vegetables, Meats, etc.

For full particulars call at the company's

Office, 426 Montgomery St., S. F.

G. W. DEITZLER, President.

W. M. WHERRY, Vice-President.

FRANK PYLE, Sec'y and Sup't.

BANK OF CALIFORNIA, Treasurer.

11v7-6m

FARM HANDS.

The Grangers' Scandinavian American
Employment Office

Has been removed from 6 Leidesdorff to 608 Clay street, and Consolidated with the Pacific Coast Employment Office. This office is in constant communication with Grange Headquarters, and is the only one in the city conducted by members of the Order. Our facilities for furnishing MALE and FEMALE help of all kinds are unexcelled by any office in the city. Great care taken to select reliable help. Chinese Orders for Servants, in door and out, promptly filled.

In ordering help, be particular in describing work, wages, fare, etc.

PHILIPS & FLIGGLE.

CARD.

EXCELSIOR FORCE PUMP

greatly improved. COPPER LINED

BRASS VALVES AND VALVE SEATS

every way equal to a BRASS

PUMP. PRICES reduced. Send

for Circular. BRITTAN, HOL-

BROOK & CO., Agents.

THE CLEETON COOP COMPANY,

Of New Haven, Conn.

Are now prepared to furnish societies and individuals with

Standard Exhibition Coops

AT REASONABLE RATES.

Correspondence Solicited.

Geo. W. Chapin, Real Estate Agent, 434 Montgomery St., San Francisco, buys and sells Ranches in all parts of the State. City Real Estate exchanged for country Property. MONEY LOANED. Post Office Box 1120

Commission Merchants.



STEELE, ELDER & CO.,

WHOLESALE

COMMISSION MERCHANTS

FOR THE SALE OF

California Dairy Produce,

GRAIN & QUICKSILVER,

204 Front Street, San Francisco.

AGENTS FOR THE

Missouri,

Kentuck,

Ida Clayton

and Yellow Jacket

Quicksilver Mines.

All orders for Supplies and Machinery for
Mines promptly attended to.

RETORTS, POWDER and MINERS' TOOLS

Supplied at Importers' Prices

3v9-eow-hp

H. K. CUMMINGS.

1858.

H. H. BALSTON.

1875.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission
House.

ESTABLISHED 1858.

No. 424 Battery street, southeast corner of Washing
ton, San Francisco.Our business being exclusively Commission, we have
no interests that will conflict with those of the producer.

MOODY & FARISH,

Wool Commission Merchants,

No. 210 Davis Street, S. F.

Eureka Glycerine and Carbolic Sheep Dip; Sheep
Skins; Wool Sacks and Twine constantly on hand at
low prices.Davis & Sutton, Commission Merchants,
For California Fruits; also for the sale of Butter, Eggs,
Cheese, Hops, Green and Dried Fruits, etc., 75 Warren
street, New York. Refer to Anthony Halsey, Cashier,
Tradersmen's National Bank, N. Y.; Ellwanger & Barry,
Rochester, N. Y.; G. W. Reed, Sacramento, Cal.; A.
Lusk & Co., Pacific Fruit Market, San Francisco, Cal.

ALEX. BUSWELL,

BOOK BINDER, PAPER RULER

AND BLANK BOOK MANUFACTURER.

521 Clay Street, S. F.

Blank Books Ruled, Printed and Bound to Order

Railroads.

Chicago and Northwestern
Railway.

Miles in Operation:

Illinois Division.....	486.5
Iowa ".....	432.8
Wisconsin ".....	585.4
Michigan ".....	169.7
Minnesota ".....	291.8
Dakota ".....	38.5
Total Miles.....	2,003.7

IN CONNECTION WITH THE

Central and Union Pacific Railroads,

—THIS IS THE—

PIONEER LINE

Between the Pacific Coast and the

EAST,

And was the first to connect with the great
Pacific roads, and form the

OVERLAND ROUTE.

THIS LINE IS THE

Shortest Rail Line

—BETWEEN—

OMAHA and CHICAGO.

The track is of the

BEST STEEL RAIL,

And is well ballasted, and as free from dust as
a road can be made; the bridges are strong and
durable, and all the appointments are first-
class in every respect.
The trains that run over this road are made
up of elegantNew Pullman Palace Drawing Room and
Sleeping Coaches,

Built Expressly for this Line,

Luxurious, well lighted and well ventilated
Day Coaches, and pleasant lounging and smok-
ing cars; all built by this company in their
own shops. The cars are all equipped with the

Miller Safety Platform,

—AND—

PATENT BUFFERS AND COUPLINGS,

WESTINGHOUSE SAFETY AIR BRAKES,

And every other appliance that has been de-
vised for the safety of passenger trains. All
trains are run by telegraph, and are so regular-
ly on time that one can safely set his watch by
their arrivals or departures.

IN A WORD, THIS

Great California Line

Has the

BEST AND SMOOTHEST TRACK,

AND THE MOST

Elegant and Comfortable Equipment

Of any road in the West, and has no competi-
tor in the country. It is eminently the favorite
route with Californians traveling East, and is
acknowledged by the traveling public to be the
popular line for

Chicago, New York and all Eastern Cities.

Through tickets by this favorite route can be
procured at all offices of the CENTRAL PACIFIC
RAILROAD, and at the office of theCHICAGO AND NORTHWESTERN RAILWAY,
208 Montgomery street.

H. P. STANWOOD, Gen. Ag't for Calif'na.

M. HUGHITT,

General Sup't.

CHICAGO.

W. H. STENNETT,

Gen. Passenger Ag't,

CHICAGO.

10v8-1am-ly

CALISTOGA

REAL ESTATE COMPANY.

Calistoga, with a population of about 800 persons, is a village watering place at the head of the valley of Napa, in California. It is four hours' travel north of San Francisco by steamboat and rail.

Its shipping port is Vallejo, on the bay of San Francisco, forty miles distant by rail. It lies at the head of the most charming valley in the State.

THE BEAUTIES OF NAPA.

In traversing this thirty-seven miles of fertile dale, the eye never wearies. If one ascends the sides of the leafy mountains that bound the valley on either side, whether looking up the valley or down, and from whatever point of view, the scene is one of ravishing beauty.

Mounting the summit of St. Helena, which towers over all, far to the east the snowy Nevadas bound the view; and to the west spreads the Pacific ocean, with its winged ships and its blue horizon. To the north are the vast forests of Mendocino, its stately trees, urned to shrubbery and Clear Lake in its pride of tpanse dwindled to a mill dam.

THE WARM SPRINGS.

From the beauties of Calistoga we turn to its other attractions. The estate covers 2,000 acres of fertile land. Its warm springs are crowded with invalids, who flock to its healing waters, and who return cured of their rheumatism, their dyspepsia, their torpid livers and their tender kidneys. The medicinal elements of the hot springs are principally iron, magnesia and sulphur. In this climate, the season of watering places is prolonged.

THE SURROUNDINGS.

By consulting a map it will be apparent that Calistoga is destined to become a commercial town of importance. It is the center to which converge innumerable highways leading to many of the richest cultivated valleys of California.

INDUSTRIAL ENTERPRISES.

A new industry is now being introduced at the head of the valley of Napa, which will give easy employment to all the boys and girls, and contingently it will support other new industries. It is but the beginning of many others. Three miles below Calistoga is selected as the site of a large factory for saving and canning fruits and vegetables test now go to waste, and encouraging the production of more. In no part of California can these healthful elements of human food be cultivated more cheaply or more abundantly. Considering the depth of its rich soil, its prolonged season, and the extraordinary vegetable growth in this country, one acre may be considered equal to three elsewhere this industry is carried on in the Atlantic States. If irrigation be wanted, artesian waterflow may surely be found all along the valley, for it is backed by mountain ranges full of living waters.

MINES:

GOLD AND SILVER AND QUICKSILVER.

Calistoga is the center also of a great mountain range rich in mines of cinnabar and silver. Already its furnaces are producing mercury, and the product is increasing yearly. A number of valuable mines are now being profitably developed in the region around the base of Mt. St. Helena, at Pine Flat, on the Great Geysers road, and near Sillies' Mill, on the Clear Lake road. All of these are from ten to fifteen miles beyond Calistoga, to which point their products come, and from which their supplies are carried. The deposits of cinnabar occur in well defined veins, and as they are now being scientifically developed they bid fair to rival in productiveness the celebrated mines of New Almaden.

CALISTOGA REAL ESTATE CO.

The splendid property above described, containing 2,000 acres, divided into town lots, suburban lots, country seats, hotel property and farm tracts, has been bought by the above named company, and is now offered for sale to the public.

The Capital Stock of the Company is
\$1,000,000,

Divided into 20,000 Shares of \$50 Each.

The sale of a certain number of shares has been authorized by the Board at the rate of

Twenty-five Cents on the Dollar, Making
12.50 Per Share.

By an arrangement between the former owner and the present company, no portion of this land or the proceeds of its sale, is consumed by expenses or in even the smallest degree diverted from the use and benefit of the stockholder.

Whoever buys Stock in the Company receives his pro rata share of this property, with its Crops and Rents in the meantime, without one cent of deduction for expenses of any kind, even including Taxes. And this, too, no matter how valuable the property shall become.

Unlike the homestead schemes which have heretofore attracted our people, this plan gives homes and interests in and adjoining towns already built; where trade and growth are already assured, and where daily increase gives promise of greatly added values to all its property. It is a division of this ripened heritage that is now offered to the subscribers.

TRUSTEES:

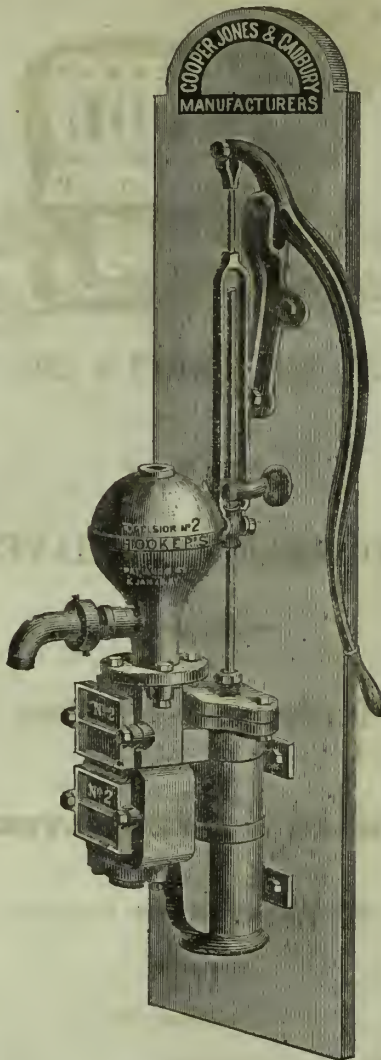
E. W. BURR,
President Savings and Loan Society.
C. HARRISON,
President Bank of Napa.
B. FRISBIE,
President Vallejo Commercial Bank.
JULIUS WETZLAR,
Pres. Capital Savings Bank, Sacramento.
COLONEL J. P. JACKSON,
San Francisco.

WILLIAM H. MARTIN,
GENERAL AGENT,

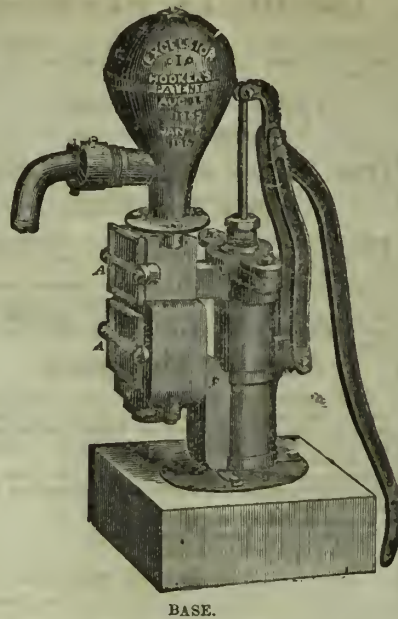
Cor. Webb & California Sts., San Francisco.

THE "EXCELSIOR" FARMERS' PUMP.

After Eight Years' use, proving itself the Best Pump on this Coast, and consequently the CHEAPEST.



MOUNTED.



BASE.

We can advise all parties to buy the Pump to be worked by hand, windmill or horse power. All sizes for sale.

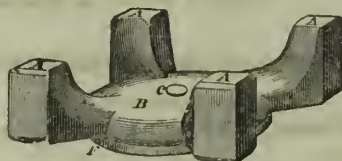
REMEMBER.

Every Pump is tested to 125 lbs. hydraulic pressure per square inch.

Will pump water 250 feet high.

So simple every farmer can keep it in order.

EVERY PUMP WARRANTED.



VALVE.

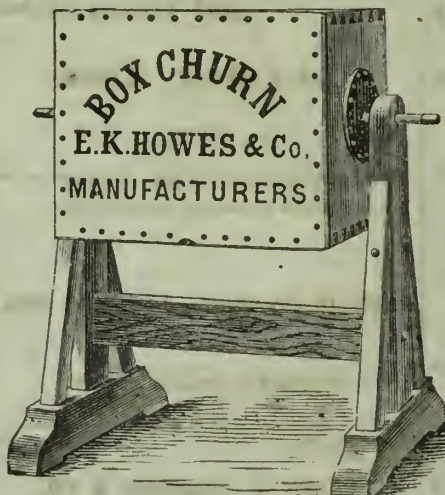
Send for circular.
msr27-2am

BRITTAN, HOLBROOK & CO.,

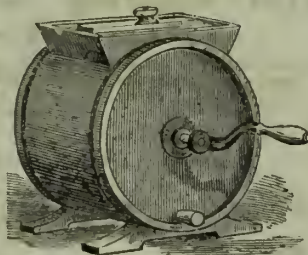
111 & 113 California St., S. F., (and also Sacramento,) Gen. Ag'ts.

E. K. HOWES & CO.,

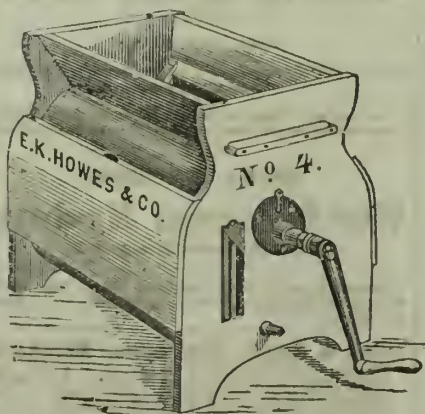
NOS. 118, 120 and 122 FRONT ST., SAN FRANCISCO.



BOX CHURN.



CYLINDER CHURN AND DASHER



THERMOMETER CHURN.



BLANCHARD CHURN.

SOLE MANUFACTURERS ON THIS COAST OF

All Descriptions of Churns, Butter Workers & Moulds, Butter Tubs, (35, 50 & 60 Pounds), Butter Kegs—Plain and Gal Hoops—Wholesale & Retail.

Send for Price List and Illustrated Catalogue. Single Churns sent by Express, O. O. D., if desired.
9v9-cow-2m-16p

NEW CROP OF

BLUE GUM SEED.

GRASS AND CLOVER SEEDS.

FLOWER AND VEGETABLE SEEDS.

TREE AND FRUIT SEEDS.

OF EVERY DESIRABLE VARIETY AND OF THE BEST QUALITY; OFFERED AT WHOLE SALE OR RETAIL, BY

GEO. F. SILVESTER,
SEEDSMAN,

No. 317 Washington Street,

24v8 tf SAN FRANCISCO

1874. GUIDE AND CATALOGUE 1875.
FREE.

To persons contemplating purchasing I will send my ILLUSTRATED, DESCRIPTIVE CATALOGUE and GUIDE to the VEGETABLE and FLOWER GARDEN WITHOUT CHARGE. It contains the most extensive and valuable list of



Flowering Bulbs, Roots and Plants, Semi-Tropical Trees, Ornamental Shrubs, Fruit and Shade Trees, etc., ever offered in this market. It will show to successfully grow the Australian Blue Gum, the Monterey Cypress, Pine, etc., and the proper method of Cultivating Tobacco on this Coast.

My stock of seeds is in part my own raising and in part direct importations from the best European and Eastern growers, and is unsurpassed in all respects by that offered by any other establishment. 100,000 Australian Blue Gums and Monterey Cypress in boxes at from \$30 to \$50 per 1,000, raised at my own Nursery at San Rafael.

R. J. TRUMBULL,

Grower, Importer, Wholesale and Retail Dealer in Seeds, Shrubs, Trees, etc.

20v8-6m-16p 427 Sansome street, S. F.

Improve Your Poultry,

IT COSTS NO MORE TO KEEP GOOD FOWLS THAN POOR ONES!

OAKLAND POULTRY YARDS,

Cor. 18th and Castro streets, Oakland, Cal.

Eggs for Hatching

GUARANTEED FRESH,

True to Name,

And to carry safely to any part of the country.

BRAHMAS, LIGHT AND DARK LEGHORNS, WHITE AND BROWN HOUDANS, COCHINS, BUFF, BLACK AND PARTRIDGE POLISH, GOLD AND SILVER, HAMBURGS, GOLDEN, SILVER AND BLACK GAMES, AYLESBURY AND ROUEN DUCKS, DORKINGS AND BANTAMS.

BRONZE TURKEYS, the Largest in America.

Send for Circular to

GEO. B. BAYLEY,

Box 659, San Francisco.

M. FALLON,

Cor. Seventh & Oak sts.,

OAKLAND, CAL.

Light & Dark Brahmas, Buff, White and Partridge Cochins, Spangled, Golden and Silver Polish, Spangled, Golden and Silver Hamburgs, Pure White-faced Black Spanish, White and Brown Leghorns, Silver Grey Dorkings, Houdans, Silkies, Black-Red Games, Bronze Turkeys, Rouen and Aylesbury Ducks.

All from Premium Stock of Best Strains.

Fowls of above varieties for sale; also, Chicks in their season. Eggs packed with care and sent in rotation as orders are received. 1v9-16p-tf

Bronze Turkeys

Emden Geese

12 Gobblers from 8 to 20 months old, 22 to 40 lbs each, for sale now. Hens 14 to 18 lbs.

40 to 50 pounds per pair at maturity.

BLACK CAYUGA DUCKS,

Games, Brahmas, Leghorns, Houdans, Bantams, etc.

Eggs, fresh, pure, true to name; well-packed so as to hatch after arrival.

For Illustrated Circular and Price-List, address

M. EYRE, Napa, Cal.

FERRETS.

RABBITS.

PIGEONS.

Please state where you saw this advertisement.

lowed to fall upon the eye, upon the pupil, it will dilate greatly and it is from this fact it gets its common name.

[Belladonna is derived from two Italian words *bella*, beautiful and *donna*, lady; according to Webster.]

The Spanish and Mexican ladies have long made use of this to try to lighten the beauty of their eyes. Our oculists now put it to a better use.

Tobacco, *Nicotiana Tabacum*, is a native of the warm portions of America. [Fig. 3.] It was used by the original inhabitants of this continent long before the Europeans came here, but it was very soon introduced into Europe. In 1589, Sir Walter Raleigh took the tobacco to England and some eight years afterwards the potato also. At first, it met with great opposition, throughout all Europe; kings, priests, popes, everybody opposed it; nevertheless, its use spread rapidly over all the countries of the civilized world. Some of the authorities say that on an average

Every Fourth Man

Makes use of tobacco. A greater part of the product is derived from the United States. There is a strip of country including Virginia, Ohio, Pennsylvania and running down into New England, also including portions of Tennessee, Indiana, Illinois and southern Iowa—all through that belt of country is a very important district engaged in tobacco growing. Certain varieties are grown very far north. I have known its very profitable cultivation up near lake Erie. It probably will become of more and more importance.

Among the weeds we name black nightshade, which is a remarkable plant botanically, from this fact: that it is found running as far north as a plant will grow, up into the frozen regions; and also in the southern temperate zone, it extends as far as plants will grow. This is an anomalous case, because as a general thing the plants of the north temperate zone are hardly found in the south temperate zone at all. Second, the "jimson weed" or thorn apple. It grows abundantly in almost all cultivated places. It grows in California. Both of these weeds are poisonous.

Among the flowering plants only one is worth mentioning, and that is petunia. This, within the last six or seven years has been considerably improved, although a few years ago it was called old-fashioned. Its ease of growth and delightful fragrance place it very deservedly quite high among the ornamental plants.

Referring again to tobacco, I just want to make one remark: You will find the statement frequently in our agricultural journals that tobacco is not an American plant. I think that remark comes from this: there are a great many species of *Nicotiana*, some of which are not natives of America, and I think it is from this we get the statement that the Chinese were acquainted with tobacco long ago. The tobacco largely used all over the world for smoking and chewing is an American plant.

The second order, the

Mints

Of the order *Labiata*, are herbs or small shrubs, never trees; mostly with square stems, very abundantly distributed, but most abundant in the temperate zone. There are upwards of 2500 species, throughout nearly all of which is to be found a highly aromatic and pungent property which has caused them to be long held in high repute as possessing medicinal virtues. At the present time this medicinal use has nearly passed away, and they are restricted almost entirely to a few strong scented plants which make up the medicines of quacks and herb doctors. In fact, this order furnishes the perfume or odor for the quack medicines more than any other we have. A few, however, are harmless plants, used in domestic practice, and called, generally, herbs. This aromatic principle is of importance as furnishing some very useful oils and essences.

First, is lavender, from the *Lavandula vera*, which is a little shrubby plant found in South Europe, grown for its leaves; from these by distillation is obtained oil of lavender. This, dissolved in alcohol and mixed with water is what is known as lavender water, and is used largely in perfumery.

Rosemary, (*Rosemarinus officinalis*), also a shrubby plant found in Southern Europe, and to some extent in Western Asia; is grown for its oil, used in the manufacture of all sorts of perfumes; also very largely used in the manufacture of cologne water—is one of the more important ingredients in the latter.

There are a great many others. I simply will mention a half dozen or more of them in testimony of this fact, that the order is an order of perfume. Peppermint, pennyroyal and sage are European; sweet basil is from India; horehound and catnip are European. You can hardly mention a plant of this order but that is more or less aromatic.

Some of these, as peppermint and pennyroyal, are used in domestic practice. It is my opinion that they are quite harmless, but as to their real virtues, I doubt whether they possess any. If we must take something whenever we have a little pain, I suppose we might as well take these. I do not want to put myself on record as against taking medicine when prescribed by a physician. If we wish to dose ourselves, without knowing anything about their properties, these things may be taken.

A few plants of the order are of ornamental value. Two are in quite common use—*Coleus* and *Perilla*; these are the generic names. They run off into false species or varieties. These, here, have a brilliant, red color. They grow east, in hot-houses; bare, out of doors. Sage,

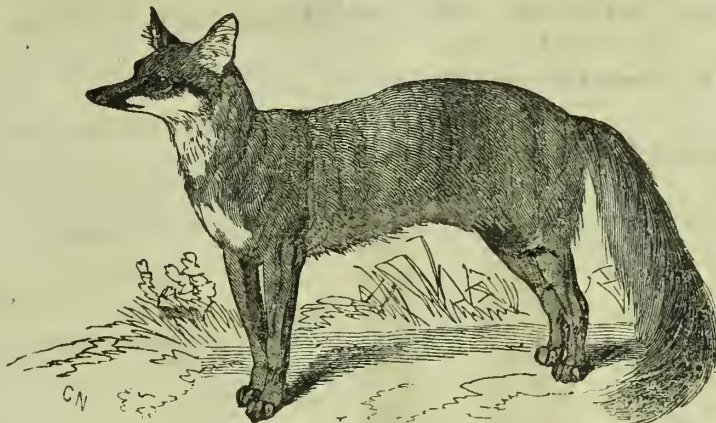
an Indian species, and some tropical, are grown for ornamental purposes. When these three are mentioned, you have about all. It seems a little strange that an order of so many species should not furnish more, more valuable for ornament. None furnish food for man or beast, though a few are used as substitutes for tea, very poor at that. None furnish textile materials or materials which can be used in any way in building—no woods.

There are but few bad weeds. I do not call to mind a single one but that can be readily driven out. As soon as you use the plow or hoe they disappear. It is possible that in some localities there are some of more weedy habits. The group may be considered as yielding medicines of a poor order, and perfumes of a high order; and it illustrates perfectly how one predominant character may determine the position of an order or group in the list of economic plants. The aromatic property which it possesses determines its position.

Next we take up several small groups of but few species, but of considerable importance, and first is the

Ebony Family,

Ebenaceae, a small group of only a hundred and



CALIFORNIA FOX.

sixty species, found chiefly in the tropics. It derives its name from the ebony trees of the East Indies, and of the surrounding countries there. The Ceylon ebony, *Diospyros Ebenum*, is from Ceylon. A second one, *D. Ebenaster*, is from India, as is also *D. melanoxylon*. *D. reticulata* is from the island of Mauritius. The

some woods of a good deal of value in certain localities, but so far, their values are only local. In China and Japan, one of the species of this same genus *Diospyros*, furnishes a very valuable and very delicious fruit. It is called there the *Kaki*, or Chinese date (*Diospyros Kaki*), and so in giving it a name, botanists very wisely gave it the same specific name which it has for a common name. You understand that it is not the date spoken of in literature generally; but this is a fruit about the size of an apple, said to be exceedingly delicious. It is eaten from the tree and also preserved—makes a sort of fig-like preserve. Can be

Grown in Southern California.

If not already introduced, it could very profitably be brought into the United States.

In the eastern United States and running up, I hardly know how far, into the Rocky Mountains, we have what may be called the American date, or the American date palm.

It is known in the East and, probably all over the country, as the Persimmon, *Diospyros Virginiana*; the American date palm, or Persimmon, is a tree growing from twenty to sixty feet high. It produces a plum-like fruit, which, when green, is exceedingly pungent. When

within the last few years, for the purpose of replanting these trees, and as the policy adopted by the natives is suicidal, we ought to be looking out for something to take its place. Its uses are very many. One peculiarity it has, is, that when heated it softens up and can be moulded into various forms and when it cools becomes hard and retains its form; so it can be very largely used for any purposes required. Then again, it is used for the telegraph cables. Very likely, if gutta percha had not been found just when it was we

Should Not Have Had Atlantic Cable

At least, for some time yet. In order to prevent the great waste resulting from the present method, the trees could be tapped or partially girdled and their juice thus utilized for six, seven or eight successive years. This method, though not giving so large immediate results as cutting down the trees, would give a larger aggregate.

Now, Europeans pay no attention how the natives get the material together at the seaports. In some species, this milk is used for food by the natives. I suppose in such species the juice does not coagulate or dry up as soon, and in some cases the juice is used just as the natives of South America use that of the *caw* tree, and as the Pacific islanders have always used that same tree.

The star apple and the sappodilla plum, of the West Indies, are large trees bearing delicious fruits about the size of an apple, which are said to be second only to oranges. Here, we know nothing at all about them. In fact I never saw a star apple or sappodilla plum. They are difficult of transportation. They could be grown, almost to a certainty, in certain parts of this State. A few species furnish valuable woods, but they are not of general importance as yet, being known only in certain restricted districts, so we pass them by.

The last family to which I call your attention, is the

Holly Family,

Or, the *Aquifoliaceae*, a small group numbering about one hundred species, all of which are trees or shrubs. They are found in temperate climates somewhat, but mostly in the tropical countries. The principal importance of the order lies in the tree known as the holly tree, found growing native in almost all parts of Europe. It is an evergreen, with leaves very much resembling some of the forms of the evergreen oak. The wood is white and very highly prized by cabinet-makers and turners. I have here a specimen marked white holly. From knowledge, I am not quite certain whether this is the holly which grows in the eastern part of the United States, or whether it is the holly of Europe, *Ilex aquifolium*. You can see it is especially valuable for inlaying, or for the manufacture of any article where whiteness would be desirable. This American holly is like that, but it usually grows so small it cannot be used. This is frequently taken, and wrought into the proper shape, produces the material called ebony, and is used as a substitute for it. I suspect, as I said a moment ago, that this ebony is only a manufactured ebony. Without much question, that is simply a colored white-wood. You take it in the light and you will see that the color is not all the way through it.

Paraguay tea or "mate" is derived from another species of this *Ilex*, *I. Paraguayensis*, a little shrubby plant. The leaves are gathered, screeched, pounded and then used very much as Chinese or Japanese tea, and it is said to possess about the same properties. By the way, this name "mate" is a misnomer, and it comes by travelers mistaking the name of the vessel from which the tea is taken for the name of the tea itself. The inhabitants drank this tea from a little vessel called the mate [ma-ta] and so it was supposed when they were drinking it and used the word. They were referring to the beverage; at least, so some authorities tell us.

Foxes.

The engraving shown on this page represents the California Fox, which is so common in this State. Most of our readers are familiar with its appearance and habits, so no detailed description of the animal is necessary. Foxes in this country lead a much quieter life than those in England, for here we do not make a business of hunting them. If they rob chicken yards, the farmers, of course, try and give them a dose of cold lead, a proceeding which would be looked upon almost as sacrilege in England. There they hunt them systematically with horses and hounds, but never think of shooting them. They protect the coverts and raise foxes, trying to preserve and improve the breed, while we in this country consider them as barn-yard pests, and kill them whenever a chance occurs. These animals are, however, proverbially crafty and sly, and generally manage to keep out of sight and out of danger.

NEW FIRM IN SANTA CRUZ.—O'Hara & Morgan have established a fruit, produce and provision house at Santa Cruz, corner of Walnut street and Pacific avenue. It is the design of this firm to furnish dairy, fruit, poultry and other farm produce, paying cash for the same; the only house that buys for cash. They also sell for cash, dealing in groceries and other household supplies; doing in every respect a strictly cash business. "Pay as you go," is a good motto, and it will be found a less difficult one to carry out than is generally supposed. Mr. H. D. Morgan was lately business agent for the Olympia Grange, W. T., and comes well recommended.

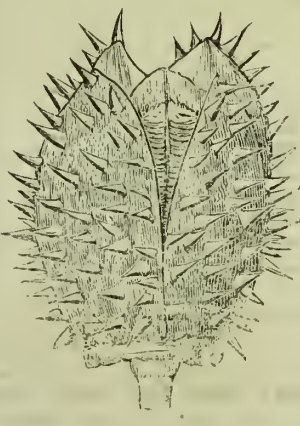


Fig. 1. Seed Pod of Thorn Apple—(*Datura Stramonium*).

trees are large, and very slow in their growth, as you will expect from the nature of the wood. In the largest, the wood is of a light color, but after a while it begins to turn dark, and takes on the very dark, almost black, color to which it has given a name. This is labeled here as a



Fig. 2. Egg Plant.

true ebony. I have some very grave doubts whether it is, but then it will show you, however, what ebony is—its general appearance. I think if a bit of that specimen was taken out and boiled in water a coloring matter might come out. It is probably white-wood stained and

Sold as True Ebony.

The true ebony should not have the appearance which you will see if you hold it up to the light in the proper way. True ebony blackens in the center, and from the center outward. It is, therefore, difficult to account for any such whiteness on the inside. Then again, it is not hard enough. True ebony should be jet black, considerably hard and quite brittle. The best is that coming from Mauritius. Ceylon and India are not so valuable.

There are a few allied species which furnish



Fig. 3. Tobacco Plant.

Persimmon is one we almost always smile at, as not worth thinking much of. It abounds through almost all of what might be called the interior States, including Ohio, Indiana, Illinois and southward. There are some in the extreme southern portion of Iowa. I think there is no part of Southern California as cold as Southern Iowa. However, as this *Kaki* could be grown in the southern part of California, there is no need of introducing it, the Persimmon, there. Taking it wild, we, of course, expect it to be a poor thing; but grow it, selecting the best varieties wherever it spots, and no doubt in a very short time we might get from it valuable fruit.

The Star Apples

Form another small order, the order *Sapotaceae*, which includes about two hundred species, mostly tropical, and they are all either shrubs or trees. Throughout the whole order, the plants are possessed of a milky juice and this upon drying becomes more or less glue-like. In gutta percha, or, the gutta percha tree, this becomes of very great economic importance. The gutta percha tree, *Isanandra gutta*, is a tree from sixty to seventy feet in height, found in Southern Asia, and on the islands of Borneo and others near by. The juice is secured by cutting the trees. The natives there seem not to know how to get the juice in any other way. They cut the trees and peel off the bark and by so doing obtain the juice, but this results in rapid destruction of forests. As the juice dries, it is made up into little cakes and is exported. When brought to the United States, or England, or any of the countries on the continent, it is manufactured into all sorts of utensils and is applied to a great variety of uses. As the trees only produce from twenty to thirty pounds apiece and as the consumption requires a very large quantity annually, there is great danger that it will become extinct. No steps have been taken, except by the British government

SHEEP AND WOOL.

Wool Market.

NEW YORK, March 27.—Nothing very favorable can be said in reference to wool. Holders of fall California, in view of liberal receipts and anticipated heavy arrivals, are forcing matters here, and sales are being effected at very low figures. The condition of that being received is of the very poorest description, being filled with dirt, burrs and shives, which makes it almost impossible for anyone, with the exception of an A 1 manufacturer, to make a profit. Holders allow no reasonable offer to pass, making sales in some instances at prices below the cost of landing it here. Spring California is in light supply and therefore steady. Fine grades of fleeces are still neglected and weak; but No. 1 medium grades are scarce and in demand; Foreign wool of all kinds is dull, but holders show no disposition to recede from their present asking price. Sales for the week have been 1,211 bales of fall California at 17 to 23 cents, principally at the former figure; 131 do. spring, 27½ to 30 cents; 45,000 pounds scoured do, 67½ to 72 cents; 3,000 pounds lambs', 28½ to 29 cents; 50,000 pounds Colorado at 24½ to 50 cents; 2,000 pounds Nevada, 26 cents; 200 bales Oregon, 42½ cents; 8,000 pounds fine Eastern, 34½ to 35 cents; 30,000 pounds Western, 58 cents; 15,000 pounds medium Eastern, private; 420 bales super pulled, 44½ to 50 cents; 10 do. X do, 46 cents; and 122 do. and 60 do, combining do, on private terms; 17,000 pounds fine unwashed Western fleece, 36½ cents; 80,000 pounds medium do, 42 cents; 2,000 pound, coarse washed do, 46 cents; and 20,000 pounds X and XX Ohio do, 50,000 pounds combining do, 2,000 pounds Michigan do, and 10,000 pounds fine unwashed Western, on private terms.

Boston, March 27.—The wool market is still unchanged. Fine fleeces are dull, and prices still rule quite low, but all grades below XX meet with a steady demand, and desirable lots of No. 1 combing and delaine fleeces would bring an advance on recent prices, as they are very scarce and difficult to find. The principal sales of XX fleeces have been at 52½ to 53 cents, but a low X has been sold as high as 56 cents, and choice No. 1 Ohio would bring 57 to 58 cents, and perhaps a higher figure. XX fleeces are in fact worth 5 to 6 cents per pound less than choice medium and No. 1 grades. Manufacturers have been running so much on these grades that the stocks are almost exhausted. Combing and delaine fleeces are very scarce; some washed have been sold at 64 to 66 cents, and desirable lots would readily command these figures; unwashed has ranged from 45 to 50 cents. Pulled wool continues in demand and has met with ready sale. The transactions of the week include 282,000 pounds, and comprise considerable combing pulled, at from 54 to 58 cents, and good to choice supers, at from 50 to 55 cents. In California wool the sales include 238,000 pounds, at 25 to 37 cents for spring, and 17½ to 25 cents for fall; some considerable lots of very good fall have been received during the week.

Sheep in Trouble.

Having had much experience with sheep I advise no doctoring or attempting to cure diseases; but the instant any sickness seems to be coming on a sheep of any age, slaughter it right away, before the complaint has time to affect the meat. I have had several hundreds in charge of shepherds under my superintendence and it is very rarely any sheep ever does any good after ailing; therefore my plan was for the shepherd to kill every sheep or lamb that had any kind of disease coming on or if it stood alone without eating or wanting to join the rest of the flock. By this means I had one of the most healthy flocks in existence—not such a flock as is termed a flock now-a-days, but about seven hundred; and after the first two years there was not one in a hundred ever came to "grief." It is breeding from sheep prone to sickness which causes a flock to be having ailing sheep in it.

Of course there must be no nonsensical sheltering of sheep out of rain in the summer season, for it does them good to be out day and night, and in winter they ought to have a run out in the day or the confinement will cause trouble. Where the climate is mild, they should never be housed.

Mr. Randall copied the recipes for curing complaints and I assure every owner of sheep there never was a greater mass of rubbish than was published in the English sheep books; for none of the large flock masters ever dream of keeping or buying physic for sheep. The diseases are most of them imaginary, and the only three worth thinking of, are foot rot, scab and liver rot. The first two are easily cured and will never come again afterward unless diseased animals are put with them again. The third disease has no cure and is not known in this country.

Droopy occurs when tegs are thriving very fast, after having been checked in their well doing by some bad feeding; but when sheep are kept as they should be, in a uniform, regular, healthy condition, never receiving any checks to their growth, they will not be liable to droopy or other ailments; and when a flock is properly managed and kept in good order, always kill every sheep which does not do so well as the rest, for that is the way to secure real hardy, healthy and profitable sheep.—*Rural New Yorker.*

ENCOURAGE HOME INDUSTRY.

C. C. Burr & Co's



Mustard

50 per cent. Better than any Imported Mustard.

Ask Your Grocer for it.

9v5-cow-bp.

Office of Drain Pipe Works,

S. W. Corner Sacramento and Montgomery Sts., S. F.

DRAINS

CONSTRUCTED

In any part of the State, and

Work Warranted

E. T. MENOMY Proprietor.

bp-cow-1 yr

The National Gold Medal

WAS AWARDED TO

BRADLEY & RULOFSON

FOR THE

BEST PHOTOGRAPHS

IN THE

UNITED STATES,

AND THE

VIENNA MEDAL

FOR THE BEST IN THE WORLD.

No. 429 Montgomery Street,

cowbp

San Francisco, Cal.



Rowlands' Macassar Oil.

Preserves, strengthens, and beautifies the human hair; makes it grow thickly on bald places, and eradicates dandruff; has been in use all over the world for the last seventy-five years. ROWLANDS' ESSENCE OF TYRE changes red or grey hair to a permanent brown or black. Sold everywhere by all druggists, chemists, and patent medicine dealers. Ask for Rowlands' article, of 20, Hatton Garden, London, and avoid imitations.

SUPPORT HOME INDUSTRY.

WHEATEN STARCH,

MANUFACTURED BY

J. JOHNSTON,

SAN JOSE, CALIFORNIA.

This starch is made from the best of wheat, and is used by the laundries and hotels, who pronounce it Superior in Strength and Fine Satin Gloss to any imported starch—one pound being equal to one and a half pounds of Eastern starch.

EGYPTIAN OR MEDITERRANEAN CORN.—It was late last Spring before we could secure a supply of this seed. Finally it reached us, and as far as we could we filled orders. At this writing we have a stock on hand, and doubt not we shall be able to fill more, if not all orders received. The grain, which surpasses in nutrition, that of any other variety of corn known, is quite small, and of a dark red color, and is produced from a shoot that comes out at the top of the stalk, which curves like a swan's neck. In this respect it is an oddity, and when seen for the first time is very attractive. The stalk grows to a height of from 7 to 9 feet, is finer than other corn, and is prolific in leaves from root to top, and is excellent for fodder, or for soiling. In its native country it is a perennial, sprouting afresh from the roots. It yields both of grain and stalks immensely. Should be sown thick in drills. Seed per pound, by mail, post paid, 20 cents; otherwise, 10 cents per pound. Address, R. J. TRUMBULL, Seedsman, 425 Sansome St., San Francisco, Cal.

COMPTON & BINFORD, REAL ESTATE BROKERS.

Employment and Intelligence Office. Horse and buggy free to see property. Offices at Compton, and at corner of Court and Spring streets, Los Angeles, Cal.

J. D. Yost, San Francisco. H. S. CROCKER, Sacramento

H. S. CROCKER & CO.,

IMPORTING STATIONERS

—AND—

General Job Printers.

401 and 403 Sansome St., S. F.

PARTICULAR ATTENTION PAID TO

Manufacture of Blank Books.

BANK AND INSURANCE WORK

A SPECIALTY.

23v8-3m-16p

NEWARK LAND COMPANY,

San Francisco Bay, Alameda Co., Cal.

Title Perfect. Incorporated.

The NEWARK LAND COMPANY is now assuming shape; the Guarantee Fund paid in. This Company will be prepared in March to take 3,000 people by steamboat and railroad to their town and lands in one excursion, which will be advertised. By reference to the Coast Survey Chart it will be seen that at Potrero Point, in front of Newark the deep water comes all the way through the channel from the Pacific, with the O. P. R. R. running in a direct line through Livermore Pass, making this the connecting point between all parts of the globe and the greatest manufacturing point on the Bay of San Francisco—plenty of water, good climate, excellent soil and easy communication. This land will be sold at auction in April, in acres and lots. This company will commence active operations in building etc., soon. For all information, circulars, maps and subscription, apply at the office of the company, 405½ California street, basement, opposite Bank of California, San Francisco.

CHAS. R. PETERS, Manager.

CALVERT'S



CARBOLIC

SHEEP WASH.

Sole Agency for California and Nevada T. W. JACKSON'S, 416 Sacramento Street, San Francisco.

Hooper's South End Grain Warehouse Japan and Townsend Streets.

SAN FRANCISCO, July, 1874.

I beg to inform you I have leased the above first-class Fire-Proof Brick Warehouse, now being erected by Geo. F. Hooper, Esq., and will be ready to receive storage on the 1st of August. This warehouse offers superior inducements to parties desiring to store grain and flour, as it is situated on the Water Front, and on the line of the C. P. R. R. and S. P. R. R. It is well ventilated, rat proof, and combines all the modern advantages and improvements. Yours respectfully, JOHN JENNINGS.

Advances and insurance effected at the lowest rates. Storage taken at lowest current rates. 4v8-ft

PUMPS SLUTHOUR PUMPS

Are sold 50 per cent. under any other in the market, considering the amount of water obtained for the power applied. They have now been fully tested for IRRIGATION, and entire satisfaction is guaranteed. Call and see them, or send for Circulars.

J. M. KEELER & CO., Agents, 306 California Street, San Francisco.

HOP ROOTS FOR SALE.

I have a lot of choice HOP ROOTS, and also healthy BLACKBERRY SETS for sale at LOWEST RATES. Orders may be addressed through DEWEY & Co., of the Rural Press, San Francisco; ROBT. WILLIAMSON, Capital Nurseries, Sacramento; or to me,

CALVERT T. BIRD, San Jose, Cal.

A GOOD BARGAIN.

\$500 will buy a good, pre-emption claim of 160 acres in Monterey County, with a good Dwelling House that cost more than that amount, situated one-half a mile from the Los Angeles Stage Road, and about the same distance from the line of the Southern Pacific Railroad. Apply to

MRS. ROWLANDSON, On the Premises, San Antonio, Cal.

12 Short-Horn Bulls,

fat and sleek, thoroughbred, just from Kentu ky, at SAXE'S Stables, 35 Ritch Street, between Folsom and Harrison, two blocks from Grand Hotel. Inquire at SAXE'S Stables, or Room 32 Russ House. 3v9-3m

LOOK TO YOUR INTEREST!



MANUFACTURED BY THE

PACIFIC RUBBER PAINT COMPANY.

For many years chemists and others have experimented in mixing India Rubber with Oil, Lead, etc., in order to produce a perfectly

WATER-PROOF PAINT,

And at last successful in their effort, have formed a chemical combination of Rubber with oil paints, which when applied becomes hard and elastic enough not to crack or peel, from the action of the atmosphere, with a gloss equal to work finished with varnish. The

Pacific Rubber Paint Company,

Of San Francisco, California, together with the RUBBER PAINT COMPANY, of Cleveland, Ohio, own all the patents covering perfect combinations like the above, which is known and sold by them as "Rubber Paint."

The great demand for the Rubber Paint induced this Company to purchase of the Cleveland, Ohio, and New York Rubber Paint Company, the patents for this coat, and are now manufacturing this paint in all colors, in large quantities, and have put the price below the best lead and oil paints. The Rubber Paint is prepared in Pure White, in all Cottage and other colors, comprising any number of different shades and put up ready for use, being a great advantage, as it can be spread by any one.

It Flows From the Brush Freely. Works Easily, and Settles Promptly. It is available for all kinds of Painting,

And may be used with equal advantage on iron, stone, wood, brick, or plaster.

The Rubber Paint will cover more surface, cover it better, and last much longer than Lead and Oil. Two coats of the Rubber Paint is better than three coats of Ordinary Paint.

REFERENCE:

SAN JOSE, CAL., March 20, 1875.

PACIFIC RUBBER PAINT CO., San Francisco.—Gentlemen:—I have used and sold the Rubber Paint in this city during the last four years. We have about one hundred buildings painted with the Rubber Paint. Among the prominent ones are the State Normal School, Gates Institute, City Market; the residences of Josiah Belden, J. W. Hinds, President Gold Note Bank, J. R. Arquette, Santa Clara, etc. It has never failed to give satisfaction, with a test of from one to four years, so that its durability has been well tested. My sales last year were nearly five thousand gallons.

Truly Yours, AMASA EATON. CAPT. EDWIN MOODY, San Francisco. AMASA EATON, San Jose. WILLEY & RINALDO, San Jose. WALLACE EVERSON, Oakland. F. K. SHATTUCK, Oakland. ISAAC KNOX, ESQ.

Office and Factory.

No. 207 Sacramento Street,

SAN FRANCISCO, CAL.

JESSE HEALY, ANDREW DE FOREST, Proprietors, mar27-5a

THE DR. BLY ARTIFICIAL LIMBS

166 Tehama Street,

COR. OF THIRD, BETWEEN HOWARD & FOLSOM

The best Artificial Limbs made. Send for descriptive circular.



THE "ANATOMICAL LEG" WITH A UNIVERSAL ankle motion; the above cut is its illustration. This artificial leg approaches so much nearer an imitation of the functions of nature than any other, that it stands without a rival among all the inventions in artificial legs, old or new. (The very latest announced new inventions duly considered.)

Address MENZO SPRING, 166 Tehama street, S. F., Cal. 6v30-1am-bp-3m

FARMER'S UNION.

SUCCESSOR TO A. PRINTER & Co.,

Cor. Second and Santa Clara Sts., San Jose.

CAPITAL. \$100,000.

WM. ERSKINSON, PRESIDENT

H. E. HILLS, MANAGER

Directors—Wm. Erskinson, L. F. Chipman Horace Lit is J. P. Dudley, David Campbell, James Singleton, Thomas E. Snel, L. O. T. Snel, E. A. Bralley.

Will do a General Marine Business, also receive Deposits, on which such interest will be allowed as may be agreed upon, and make Loans upon approved security.

Nurserymen.

Established 1853.

Stocks for Nurserymen.

Plum Seedlings, Mirobolan, the best French stock, does not sucker..... \$50 per 1000
 Apple Seedlings..... 10 per 1000
 Pear Seedlings..... 10 per 1000
 Cherry Seedlings, Mazzard..... 12 per 1000
 Cherry Seedlings, Mahaleb..... 20 per 1000
 Walnuts, English, 4 to 6 feet..... 15 per 100
 Cork Elm, best Elm, 4 to 6 feet..... 15 per 100
 Blue Gum or Eucalyptus, in variety..... 5 to 10 per 100
 Magnolia Grandiflora.....
 Magnolia Acuminata.....
 Magnolia Tripetala.....
 Golden Arborvitae.....
 Crataegus Arbutifolia.....
 Swedish Juniper.....
 Irish Juniper.....
 Heath-leaved Arborvitae.....
 Heath, Mediterranean..... \$2 50 per doz.
 Laurustinus, 6 to 12 in..... 2 50 per doz.
 Making the growth of Oranges and Lemons a specialty, I have imported from all sources the best known varieties, and now offer five thousand Grafted Trees properly worked and twice transplanted at \$18 per dozen. Grafted oranges by the 100 or 1,000 at prices on application. The amateur in want of large PALMS, large AURICARIAS, large CAMELIAS and large TREE FERNS, a good stock on hand; also the usual large stock of fruit and ornamental trees.

BERNARD S. FOX,
 San Jose, Cal.

THOS. MEHERIN, Agent, 516 Battery Street, S. Francisco.
 21v8-3

Fruit, Shade and Ornamental

EVERGREEN TREES

-AND-

Plants for Sale.

At the old stand, corner Oregon and Battery streets, directly opposite Post Office, San Francisco.

I NOW OFFER FOR SALE

The Largest and Best Collection of Fruit, Shade and Evergreen Trees and Plants ever offered in this market, and at Reduced Prices.

Persons laying out new grounds would do well to call and examine our stock before purchasing elsewhere.

ORDERS FROM THE COUNTRY

Promptly attended to and packed with great care. A large stock of Cypress, Pines and Blue Gums for sale very low. Send for Price Catalogue.

Agent for B. S. Fox's Nurseries, San Jose.
 Address

THOMAS MEHERIN,
 P. O. Box, 722, 516 Battery St., S. F.

1852. 1875

ESTABLISHED IN 1852.

THE STOCKTON NURSERY

I have for sale for the ensuing season a Large and Well Grown Stock of All Varieties of

FRUIT TREES,
 SHADE,
 ORNAMENTAL
 and
 EVERGREEN TREES.

GREENHOUSE PLANTS, AUSTRALIAN GUMS, SHRUBS, ROSES, BULBS, PALMS.

Send for Catalogue.

W. B. WEST, Stockton, Cal.

J. ROCK'S NURSERIES,

San Jose, California.

We offer this season a Complete Stock of

FRUIT AND ORNAMENTAL TREES,
 SMALL FRUITS AND PLANTS.

The attention of Dealers, Nurserymen and Planters is invited to our Large Stock of Fruit Trees. All Leading Market Varieties are grown in large quantities. To all those purchasing, largely we will make a Liberal Discount.
 Catalogues FREE on application.

23-v8-tf JOHN ROCK, San Jose, Cal

BELLEVUE NURSERY,

Telegraph Avenue, Oakland.

WE OFFER FOR SALE THE PRESENT SEASON A LARGE ASSORTMENT OF

Ornamental Trees and Shrubs

OF BEST TRIED VARIETIES.

Many fine specimens of good size can be seen on the grounds to select from. Choice collections (true to name) put up for those starting a garden.
 Street cars pass every fifteen minutes.

3v9-tf S. NOLAN.

BLOOMINGTON NURSERY, Bloomington, Ill.—F. KROENIG. Spring lists free, or the set of four catalogues post free for twenty cents.

SUPERIOR FRUIT TREES

TRUE TO NAME.

A fine collection of Evergreen and Deciduous Trees. Australian Gum Trees in variety, by the hundred or thousand. Monterey Cypress in quantities and sizes to suit all. Orange and Lemon Trees at reduced prices. A general variety of Nursery stock.

Also, Rhubarb and Asparagus roots.

T. CORLEY,

18v29-tf

315 Washington Street, S. F.

F. LUDEMANN.

RUD. MICHELSEN.

PACIFIC NURSERY,

Baker St., Between Lombard and Chestnut,

San Francisco, Cal.

P. O. Box 475.

We offer this Season a Large and Complete Selection of Well Grown

EVERGREEN AND DECIDUOUS TREES AND SHRUBS, FLOWERING AND ORNAMENTAL PLANTS

At very reasonable Prices. Our Descriptive Catalogue of Evergreens and Deciduous Trees and Shrubs, and our Wholesale Trade List (For Dealers and Nurserymen) will be sent on application. All Orders promptly filled.

F. LUDEMANN & CO.

KING'S NURSERY,

Twenty-fifth St., bet. Telegraph & Broadway
 OAKLAND, CAL.

Fruit, Shade and Evergreen Trees, Shrubs, Roses, Etc. Persons laying out new grounds would do well to call and examine our stock before purchasing elsewhere. A large stock of EUCALYPTUS, including BLUE GUM Pines and CYPRESS from six inches to twelve feet high. Acacias in Variety; Young Stock for Nurserymen; Pines and Cypress; Three Thousand Magnolia Grandiflora from six inches to five feet high; Camelia Japonica; Gardenia Cepe Jessamine; Araucarias in Variety, at Lowest Rates. Orders attended to. Address, M. KING, Nurseryman, 3v9-3m, Oakland, Cal.

Thos. A. Garey's

Semi-Tropical Nurseries.

LOS ANGELOS, CAL.

Forty varieties of the Citrus family of semi-tropical trees, including many rare and beautiful, as well as useful and profitable kinds.

Grafted and Budded Orange Trees a specialty. Trees packed to arrive in good order. Priced Catalogue sent free. Address me P. O. Box, 528, Los Angeles city, Cal.
 23v8-6m THOS. A. GAREY.

PEPPER'S NURSERIES.

(Established in 1858.) PETALUMA, CAL.

Green Houses and Tree Depot corner Washington and Liberty streets.

4 Green Houses. 3,000 feet of Glass. Fruit Trees a Specialty.

We offer for sale at lowest market rates a general assortment of Fruit and Shade trees, small Fruits, Vines etc. Evergreen trees and Shrubs in great variety. Green House, Conservatory and Bedding Plants, Roses, etc. We are now ready, Nov. 1st, to fill orders for trees and plants. Catalogue and price list furnished on application.

Address, W. H. & G. B. PEPPER,
 19v8-tf Petaluma, Sonoma Co., Cal.

PEACHES, APRICOTS AND PLUMS

are specialties at the Vacaville Nursery, Solano Co., Cal. Alexander's Early, Thurber and Peento in bud, 50 cents each; Beatrice, Louise, Rivers' Early, Lord Palmerston, Lady Palmerston, Prince of Wales, Princess of Wales, Picquet's Late, Lady Parham, Italian Dwarf, Golden Dwarf, Bloodleaved and many other varieties of new Peaches in bud, at 25 cents each; Trees of Alexander's Early, \$1 each; Beatrice, Plowden, Freemason and a general assortment of the leading varieties, 25 cents each; Apricots, Plums, Apples, Pears, Cherries, Almonds, Figs, Olives, Pomegranates and including most of the leading varieties of fruit for sale at low prices. D. E. Hough, Vacaville, Solano Co., Cal.

The Nurseryman's Directory.

The undersigned have in preparation, a NURSERYMAN'S DIRECTORY, embracing a list of the Nurserymen, Florists, Seedsmen and Tree Dealers of the United States. The work will be sold wholly by subscription, the price of which will be FIVE DOLLARS PER COPY. A limited space will be given to Advertisements, at the following low rates:

Full Page.....\$25.00
 Half Page..... 14.00
 One-third Page..... 10.00
 One-fourth Page..... 8.00
 One-sixth Page, \$5.50.

For Sample Pages, and further information, Address

D. W. SCOTT & CO.,

Printers and Publishers,

Galena, Illinois.

Farmers and Threshers

WISHING TO HAVE

Straw Burning Engines

For next season must engage them soon, as most of those now building are already sold. Threshing Engines for Repair should be sent in now. A number of second-hand Engines—taken in exchange for "Straw Burners"—for sale cheap. For particulars and prices, address: H. W. RICE,
 23v8-3m Haywood, Alameda County.

Seedsmen.

1875. Established 1857. 1875.

Capital Nursery and Seed House

W. R. STRONG and ROBERT WILLIAMSON, Proprietors, having united their interests in the Seed and Tree business, offer to the public the largest and finest growth of both Seeds and Trees ever offered to the California public, of their own production, and also from the largest and most reliable houses of the Eastern States and Europe, all of which we offer as low as Eastern Dealers.

TREES. TREES. TREES.

Fruit, Shade, Ornamental, Evergreen, etc., raised in our Nurseries of the very best varieties. Dealers and Growers furnished at very lowest rates. Among our numerous varieties we call especial attention to BRIGGS' RED MAY PEACH, the earliest known, large, handsome of excellent flavor and good shipper.

SEEDS. SEEDS. SEEDS.

Vegetable, Flower, Field and Tree Seeds, and Flowering Bulbs and Plants.

100,000 pounds Finest Quality California ALFALFA, RED and WHITE CLOVER, KENTUCKY BLUE GRASS, RYE GRASS, ORCHARD GRASS, VERNAL GRASS, MESQUIT GRASS, TIMOTHY, RED-TOP GRASS, and every other Grass adapted to the Pacific States and Territories.

All the finer qualities of our Seeds will be forwarded by mail (post-paid) to customers at Catalogue rates, on receipt of money, which can be sent by postal orders or registered letters, or express, at our risk.

CATALOGUES AND PRICE LISTS on application, and forwarded by mail.

WAREHOUSE, 8 and 10 J street. NURSERIES, U street. SACRAMENTO CITY. TREE YARD, I street, next to Library Building.

W. R. STRONG & CO.

D.M. FERRY & CO'S
NEW ILLUSTRATED
DESCRIPTIVE
AND PRICED
SEED ANNUAL
 1875

Will be MAILED FREE to all applicants.—This is one of the largest and most comprehensive Catalogues published; contains 216 pages, over 300 fine engravings, and gives full descriptions, prices, and directions for planting about 1200 varieties of Vegetable and Flower Seeds, Bedding Plants, Roses, &c., and is invaluable to Farmer, Gardener, and Florist. Address, D. M. FERRY & CO., Seedsmen and Florists, DETROIT, MICH.

Agricultural Articles.

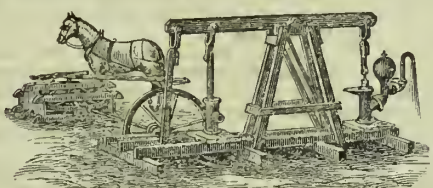
VINE AND FRUIT GROWERS,

TO RAISE LARGE CROPS

YOU MUST IRRIGATE.

To irrigate successfully, you must have the power that does not give out when the wind fails.

Laufkotter Bros. & Churchman's Horse-Power.



[PATENTED FEBRUARY 13TH, 1872]
 Never fails to supply more water than four or five Windmills, even supposing you had all the wind you want. It is also suitable for running light machinery, such as Barley Cracks, Corn Shellers, Fanning Mills, Grain Separators, or for Sawing Wood. They are never failing, cannot get out of order, easily worked, substantial, and always give satisfaction wherever they have been used. One horse can easily work two 6-inch pumps, with a continuous flow of water. Force Pumps, from 3,000 to 10,000 gallons per hour. WINDMILLS of all kinds manufactured to order. Well Bored, Windmills and Horse-Powers set in any part of the State, and repairing of all kinds done.
 Manufactured and for sale by

LAUFKOTTER BROS.,

v7-2m-3m Cor. J and 10th Sts., Sacramento.

G. OREGO.

A. O. BOWLEY.

CREGO & BOWLEY,

Importers and Manufacturers

-OF-

CARRIAGES and WAGONS,

No. 9 Merchant's Exchange,

CALIFORNIA STREET.....SAN FRANCISCO

Keep constantly on hand top and open Buggies, top and open Rockaways, Jump-seat Buggies, Truck and Road Sulkeys, Skeleton Wagons, Basket Phaetons of the very latest styles and finest workmanship.

We would call particular attention to our fine stock of light Road and Trotting Wagons, made to order by the following celebrated makers: Charles S. Coffrey, Camden, New Jersey; Helfield & Jackson, Rahway, New Jersey; Gregg & Bow, Wilmington, Delaware; And the first-class makers, which we are prepared to sell on the most reasonable terms.

Also, a large assortment of single and double Harnesses, of the most celebrated makers: C. Graham, New York; J. R. Hill, Concord; Pittkin & Thomas, Philadelphia.

Also, a full assortment of Dress and Light Blankets, Fur and Lap Robes, Whips, Halters, Burchingles, etc., at wholesale and retail.

CREGO & BOWLEY,

No. 9 Merchants' Exchange, California street, 21v5-3m San Francisco.

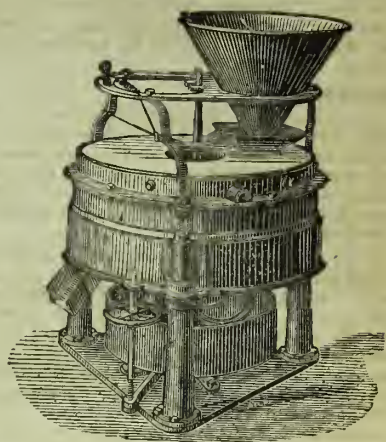
Allen's Planet Jr. Silver Medal

Havo Duita and Wheat. Hoe. Three new styles. They "sow like a champion," and hoe better, easier, and six times faster than the hand hoe. S. L. ALLEN & CO., Mfrs. 119 S. 4th St., Phila., Pa. Circulars free. A LIVE AGENT WANTED in every town.

J. WAGNER,

MANUFACTURER OF

FRENCH BURR MILL STONES AND PORTABLE MILLS.



General Mill Furnishing. Portable Mills specially adapted for Farmers' use. 113 and 115 Mission street, San Francisco. 13v7-3m-2am

KIMBALL CAR, CARRIAGE

-AND-

AGRICULTURAL IMPLEMENT

MANUFACTURING CO.,

Cor. Bryant and Fourth Sts., San Francisco

The CALIFORNIA TUBULAR IRON AND WOOD FRAME HARROW—two, four and six-horse Iron Harrows, \$60, \$70 and \$75. Wood Frame Harrow, \$10 less on each size than the Iron.

The Harrow has an easy seat for the Driver. The middle section rests on three wheels with wings hinged on each side.

By use of Levers the Driver in his seat can raise or lower the Harrow, regulating it will the depth of the teeth in the soil, and in the same manner fold or raise the wings from the ground so as to drive from the road to the field, saving the use of a wagon.

Our CALIFORNIA SCRAPER is also made for the ease of the Driver, enabling one person to ride, manage the team and do the work.

Is adapted for leveling and preparing the surface of the soil for irrigation. And for making roads, removing dirt from ditches, cleaning barn yards, sheep corals, etc.

The IMPROVED EAGLE HAY PRESS—Best in use on this Coast. Cheap, Economical, Powerful, and easily repaired.

Will press bales weighing from 250 to 325 pounds, using less rope than any other press.

Three men with a good team of horses will bale from 10 to 15 tons per day.

Adapted for baling wool, hides, cotton, rags or moss. Price, \$250. Weight of press, 2,500 pounds. Please send for circulars.

MATTESON & WILLIAMSON'S

AMERICAN CHIEF



GANG PLOW.

Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m MATTESON & WILLIAMSON, Stockton, Cal.

Attention, Farmers!

WE DESIRE TO CALL ATTENTION TO OUR

NEW AND IMPROVED

PATENT SICKLE BAR,

Designed and improved especially for the Haines Header. The particularly meritorious points in which we claim that our patent surpasses all others, are these: Our Bar is manufactured of iron, and hence is more durable and compact than bulky and unwieldy wooden bars. The old style wooden bars are seven inches deep. Our Bar is but three inches deep, thus enabling us to cut four inches lower, and save much grain that the wooden bar cannot reach. On the wooden bar it is four inches from the sickle to the draper. On our patent it is but one and a half inches, thus securing many heads that never reach the draper on the old style, and effecting a saving of many times the price of the bar, in one season.

It is the Safest, Most Durable, Simple and Economical Bar now in use. Price, \$35.00.

Address,

J. O. JOHNSON & BRO.

Dixon, Cal.

ENRIGHT'S

Portable Strawburning Engines

Burns either Straw, Wood or Coal, Manufactured and sold by JOSEPH ENRIGHT.

mr-13-3m

San Jose

Continued From Page 213.

one, and under the present management will undoubtedly prove a success. Forest trees are very much needed in California, and the sight of a large forest here on the plains would prove a good sight for sore eyes to those of us who have lived here any length of time. We wish Mr. Wigginton all success in the new undertaking.

MONTEREY.

HOPPEL.—The *Democrat* of March 27th says: We hear that the little rain we had Wednesday did positive good. Indeed, our farmers universally agree that the crops look well, and do not talk in despairing tones by any means, even if there should be no rain to speak of hereafter.

BLEW OVER.—From the *Monterey Democrat* of the 27th ult., it would appear that the rain which visited this county on Wednesday was not general. It says: The clouds massed heavily against the northern sky, and there was promise of a down-pour, but just as our hopes seemed about to be realized, the north-west wind set in and wafted the vapors away. The next morning was clear and frosty.

LATER AND BETTER.—The latest from Monterey county reads as follows:

SALINAS, March 28th.—It commenced raining here at about 11:30 A. M., and has been raining steadily until about 4 P. M., when it commenced with a good solid rain and is still continuing. There is every prospect of a full crop of wheat and barley.

CASTROVILLE, March 28th.—It commenced raining here at about 12 to-day, and rained steadily up to 5:30 P. M. The wind is south-west. This rain insures the crops for this the lower part of the Salinas valley.

SOLEDAD, March 28th.—It commenced raining at 3 o'clock P. M., and is raining steadily now, with prospects of a steady rain all night.

NAPA.

A BONANZA.—The *Napa Reporter* of March 27th says: The last rain might be termed a "high bonanza" for the farmers of that valley, for it will certainly augment the number of sacks to the acre in Napa valley, which, though it never suffers from drouth can still be helped by showers that often fail to confer the same benefits on other portions of the State.

NEVADA.

"A RIGHT SMART RAIN."—The *Foot-hill Tidings* of the 27th inst. says: A splendid rain was that which fell upon the just and unjust of this enlightened community this week. A shower on Monday and on Wednesday a right smart rain, which left the ground in fine condition for the crop, makes the fall for the week 1.54 inches, and the total, so far, for the season, 39.90 inches.

TIMOTHY HAY.—The *Grass Valley Union* of the 25th inst. says: Josiah Dodge, the well-known farmer, and one of the most successful in that line who lives in the foot-hills, pays special attention to the cultivation of the Timothy grass. It is well known that Timothy, when properly handled, makes the best hay in the world. It is better than alfalfa, clover or any of that sort. Mr. Dodge's farm produces largely, and he has now on hand a good quantity of the very best hay, so that should his crop this year be an entire failure, he would be all right next winter, in the way of feed for his stock. But his crop for the coming harvest is secure and he can afford to sell off some of that good hay now on hand.

PLACER.

APPLES RECOMMENDED.—The *Placer Herald* of the 27th ult., says: Mr. Ambrosier, a successful fruit raiser near Clipper Gap, was in town a few days ago, and in a conversation with him he told us to advise the people in this part of the country, to plant apples in preference to grapes. This undoubtedly is his experience, though we firmly believe that the raisin grape in times to come, will be found a very remunerative production. To show what can be done in the apple business we will give Mr. A's experience as an example. He has about 500 trees; from these he raised last year 33,600 pounds.

SACRAMENTO.

AN ALL DAY RAIN.—At Sacramento, on March 28th, it commenced raining at any early hour and continued all day.

SAN BENITO.

VEGETATION REVIVED.—The *Hollister Advance* of the 27th inst. says: On Wednesday evening the welcome rain clouds rolled over the valley and discharged their burden to the gratification of the farmers. Predictions of drouth had begun to obtain influence over all minds, and the policy of retrenchment carried away in many a household, and lightened many purse strings; but the friendly clouds discharging the life giving showers revived vegetation and roused up new hopes and cheerfulness. More rain fell in the foothills than around Hollister.

LOOKING WELL.—The *Hollister Enterprise* of 27th ult. says: The crops in this section, particularly the early sown, are yet looking remarkably well. A little timely rain will bring them through all right. Some portions of the county received a refreshing baptism on Tuesday evening, but we regret to say the storm skipped over without rain enough to do much good, in this particular locality.

SAN JOAQUIN.

LUXURANT GROWTH.—From the *Stockton Independent* of the 29th ult. we note the following: John Balkwill, of Waterloo, brought to

this office on Sunday last, specimens of wheat, barley, alfalfa and wild oats, grown this season on the ranch of Chas. H. Diel, situated on the plains northeast of Waterloo and between the Calaveras and Mokelumne rivers. The stalks of wheat average from a field of 200 acres of summer fallow about two feet in length; the barley was heading out; stalks of alfalfa two feet in length were from seed sown last fall, while stalks of wild oats were shown that were over five feet in length. Such growth proves most conclusively what the plain land in that vicinity is capable of producing, and also shows that the crops have not suffered from drouth.

THE RAINFALL.—The *Stockton Independent* reports the rainfall up to Sunday morning, March 28th as .29 of an inch, making a total for the season of 10.53 inches. Total to the same date last year, 14.09

SAN MATEO.

AT THE RIGHT TIME.—The *Times* of March 27th says: The five hours of rain with which we were greeted on Wednesday last, came at the right time, for the west winds which prevailed for the last two weeks, had done great damage to the crops. Although we could have stood a great deal more rain, still we have had sufficient to bring us out all right.

SANTA CLARA.

OF INCALCULABLE VALUE.—Advices from Santa Clara dated March 28th report as follows: A steady but slight rain has been falling here since 10 A. M., and bids fair to continue through the night. It has come at a time when sorely needed, and is of incalculable value.

SANTA CRUZ.

A PROSPEROUS OUTLOOK.—The *Pajaronian* of the 27th ult. speaks in the following happy strain: The weather still continues glorious, and the whole valley, and the foothills and the mountains present a freshness and wealth of verdure that cannot be surpassed in any country. Good health prevails among the people residing in this beautiful valley, and a most prosperous year is predicted.

THE RAIN.—Dispatches from Santa Cruz report the rain as commencing there the evening of the 28th and continuing all day. The rainfall was .65 of an inch.

SISKIYOU.

SNOW AND RAIN.—A dispatch from Yreka, under date of March 28th, says: It commenced raining here at 2 o'clock this morning, and rained very hard until 8 A. M., since which time it has rained and snowed at short intervals. It is now turning very cold, with a heavy wind.

SOLANO.

A STEADY RAIN.—It commenced raining at Dixon about 12 o'clock on 28th ult., and continued without cessation until 4 P. M.

SONOMA.

THE PROSPECT.—The *Petaluma Argus* of March 26th has the following item on the crop prospect in Sonoma:

R. J. Cheney, who has a ranch near the foot of Sonoma mountain, six miles from Petaluma, reports crops in fine condition in his neighborhood. The rains of this week have greatly forwarded vegetation, and crops can hardly fail to be above the average.

The prospects of fruit growers hereabouts are quite encouraging. All the climatic conditions have been favorable thus far, and the indications are that there will be a good yield of all kinds of fruit. It is not yet too late for frost to inflict great injury in many localities, but in and about Petaluma very little damage ever results from this cause and our orchardists have little to fear from frost.

O. B. Mathews, whose ranch joins this city on the north, left at our office on Tuesday a bunch of barley, the stalks of which are four feet and four inches in length. It was taken from a field of fifteen acres sown on the first day of December, and has grown at the rate of half an inch per day since it appeared above the ground. There is not a more prolific region under the sun than that which surrounds Petaluma.

The spring wool crop will undoubtedly be larger than ever before in Sonoma county. H. Meham informs us that the increase of his flocks will be 100 per cent., and others say theirs will be nearly as large.

STANISLAUS.

LIGHT BUT STEADY.—The telegram from Modesto under date of March 28th, report as follows: A light rain commenced falling about 12 o'clock to-day, and continued steady but very light until 5 o'clock P. M., when it stopped entirely. It is still cloudy, and the wind south, with prospects of more rain before morning.

SUTTER.

DISAPPOINTED.—The *Banner* of the 27th ult., says: Up to the hour of our going to press we have had no rain, though the indications were favorable on Wednesday last. The day was cloudy, with strong southerly winds; a few stray drops fell, just enough to inspire momentary confidence that we were about to be drenched with an exceeding great supply. We have had so much north wind for a fortnight past, that late grain is now at a standstill, the encrustation being so great that tender blades cannot penetrate the surface. Vegetation generally would receive a benefit now from a good rain.

TRINITY.

A SURPRISE.—The *Journal* of March 27th says: Contrary to all expectations, it rained this week. People had just about settled into the conviction that it never would rain any more. The storm was not sufficient to do any

great damage. Rain fell to the extraordinary depth of 93-100 of an inch. Our miners continue to make their regular runs of about an hour a day, just the same as though nothing had happened. Rain has fallen to the depth of 18.46 inches this season, as against 32.29 inches during the corresponding period of last year. The streets will soon be dusty again.

TULARE.

RAIN WANTED.—The *Visalia Times* of the 27th inst. says: There was quite a general fall of rain in the northern and central part of the State last Wednesday. The storm extended as far up the San Joaquin valley as Merced, but it was the ill-fate of this portion not to be so favored. If it does not rain soon, crops will not prove near as good as expected.

IT HAS COME.—From the following it will be seen that the prospect is brighter in Tulare: *Visalia, March 28.*—It commenced to rain at 5 o'clock this evening, and bids fair to make a night of it. It is just in time to save everything, and is hailed with extreme delight by our farmers.

TUOLUMNE.

RAIN FALL.—The *Independent* of March 27th gives the following record of the rainfall in Tuolumne county from September, 1874, to the 21st day of the present month:

Sept., 1874, 1 day's rain; Oct., 8 days; Nov., 6 days; Dec., 3 days; January, 1875, 11 days; Feb., 2 days; March, 2 days.

The above is a record for Tuolumne county, beyond the limits of which the number of rainy days may vary considerably. Here we have a total of 33 days' rain. It is seen that in the month of February there was only two days' rain, although the record of this month in years past show as many rainy days, and in many instances more, than any other in the season. This season, for its rain record, is perhaps unparalleled in the history of this State since its organization as a State—taking into consideration the time of the first rain, and how it is distributed through seven consecutive months.

YOLO.

A LIGHT SHOWER.—*WOODLAND, March 28.*—8 p. m.—There was a light shower during last night. It commenced raining again to-day about noon and continued until 4 o'clock. It is clear and calm at present, with indications of more rain.

YUBA.

SUFFICIENT.—Marysville dispatch under date of March 28th, reports that the rain commenced falling early that morning and continued during the day, winding up in the evening with several very brisk showers. Sufficient water has fallen to saturate the ground and materially benefit the growing crops. With no more harksets, this rain will insure good average to farmers in that locality.

J. W. KASENBURG, a wealthy wool grower in the southwestern part of Placer county, has raised from 1,180 ewes 1,300 lambs, or at the rate of about 110 per cent. increase.

In the judgment of the *Kern County Courier*, the vicinity of Tahachepe is as well adapted to raising fruits of the temperate zone, as any portion of the State.

The *Yreka Union* says the farmers are all busy putting in their crops. Weather very good except the nights which are too cold, and perhaps, a little too much wind.

PATENTS & INVENTIONS.**A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.**

[FROM OFFICIAL REPORTS FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.]

By Special Dispatch, Dated Washington, D. C., March 30, 1875.

FOR WEEK ENDING MARCH 16, 1875.

CLAMP APPARATUS FOR CONNECTING STREET CARS, ETC., WITH ENDLESS TRAVELING DEVICES.—William Eppelsheimer, S. F., Cal.

PROCESS OF OBTAINING BORACIC ACID FROM BORATE OF LIME.—Ferdinand Formhals, S. F., Cal.

COMBINED PARASOL AND WHIP.—John Perrins, S. F., Cal.

CHAFING IRON FOR VEHICLES.—Gilbert Smith, S. F., Cal.

WINDMILL.—Althert H. Southwick, S. F., Cal.

RE-INSUR.

Pantsloons, &c.—Jacob W. Davis, Reno, Nev.

The Russell End-Shake Thresher.

Read what Farmers and Threshers Think of it.

WOULD NOT HAVE ANY OTHER KIND.

BUCKEYE, Yolo County, Cal., September 19th, 1874.

MESRS. TREADWELL & CO., San Francisco—Dear Sirs: I have used the Lanfengur End Shake Shoe. I am well pleased with it. I would not have any other kind. It cleans fast and good, with no jarring on the separator. There is no time lost in staking the machine. One small stake, driven at the end of the tongue, sets the entire machine, which I claim is a big thing over the side shake. Yours respectfully,

D. ELY.

Reply to Card of Marshall P. Smith.

MESARS EDITORS:—The "Card" of MARSHALL P. SMITH, in your issue of March 27th, is the essence of a pamphlet published by him some four years ago, in which he "warned" the "public," and threatened to prosecute the Alden people immediately, but did not, for reasons best known to himself. Early last Spring, Smith "deligned" California with his pamphlets, which intimidated some timid people. Having had assurances from Mr. Alden that the controversy with Smith was compromised and would never be revived, we wrote to learn the cause of Smith's "California Spasm," and received the following pointed reply:

NEW YORK, July 10th, 1874.

Dear Sir:—I hardly know how to reply serio usely to your favor of the 29th ultimo. You of course are aware that after we commenced suit against Smith, and it dragged along for nearly a year at the earnest solicitation of Keeler, Smith having deluged his (Keefer's) Territory with his pamphlets, we were induced to make a "compromise" with him by conceding—that we had long since discarded—to him the down movement, and agreeing not to put up potatoes. The latter we regarded as entirely unimportant, the product being so cheap and there being so small a consumption of the article, that it was of no practical value.

The contract made with him has of course been kept inviolate, but he probably thought it would tend to magnify his process, (?) and he would be enabled to ride into notice on the Alden shoulders. This, however, he was disappointed in, and after having spent four years, and what substance he could get in pamphlets and advertising, and having succeeded in the failure of ever establishing a single machine or right, he has sought new pastures on his slope. We hear nothing of him from the West. His present California "Spasm" is the first we have heard of.

If his rights are infringed upon by doesn't he bring a suit here against us, where his law will not cost him anything? His brother-in-law, who is interested with him, and who is said to be a lawyer of considerable ability and experience in patent cases, is now, and has been for many years a practitioner here, has never commenced any suit.

Then, too, there is Thorp, almost within a stone's throw of Baltimore, in Smith's own hallowick, who, after thoroughly examining Smith and his machine, came and bought our machines and right, and has been in operation nearly two years.

Why don't Smith go after him, or a hundred others, for that matter, and do so upon his own "slope"?

His vapors, it seems to me, are too transparent to consider seriously. Tell your people to talk with the San Lorenzo people; they examined very critically and thoroughly Smith and ourselves, and all the patents with, as I understood, very competent counsel.

Since then we have fortified ourselves with other patents. Truly yours,

A. B. DICKINSON,

President A. F. P. Co.

"Keeler" (C. O.) is President of the Chicago Alden Company, and "his Territory" embraces Illinois and Michigan, in which he is now doing a very large business, in spite of Smith's "vaporsings." We have no interest in the controversy respecting the "compromise" between Smith and Dickinson, but think it hardly fair to attempt to punish us for the sins of Alden and Dickinson.

However, we do not fear, but rather court this open attack and shall defend our interests, and should Smith bring his matters before the Courts in this State he would find us then, backed, of course, by the whole Alden fraternity. Meantime, we are prepared to give to purchasers from us, a guarantee, as we did last year, when requested, against all such suits, and we hereby invite and urge Mr. Smith "to move upon our works" at his earliest convenience. "We have millions for defense, but not one cent for blackmail." We hope to survive all such attacks (which damage the real fruit interest of California more than usual, and while expecting to reap a reasonable reward for our labor and capital, aid in developing an industry which will, in a few years, bring thousands of people and millions of money to this slope, and we don't propose to relax our efforts nor pay any further attention to those who snap and growl and try to break us down.

While up, we beg to say that we know the Alden to be the best method yet invented, and we have no desire to purchase an interest in, nor to hire any person who is the patentee or operator of any other dryer, though we have had many invitations to do so. When we see a process that can do more and better work with less cost, we shall probably try to capture it, for we believe in the business of preserving fruits, but are quite convinced that such a contingency will never arise. We have increased the capacity, but not the price of our apparatus, and have reduced our price for exclusive Territory, so that the only objection—excessive royalty—is now removed.

Alden Fruit Preserving Company of California.

WOODWARD'S GARDENS embraces an Aquarium, Museum, Art Gallery, Conservatories, Tropical Houses, Menagerie, Seal Ponds and Skating Rink.

LOCKE & MONTAGUE,

IMPORTERS OF

Stoves, Ranges,

Tin Plate, Sheet Iron, Iron Pipe,

House Furnishing Hardware,

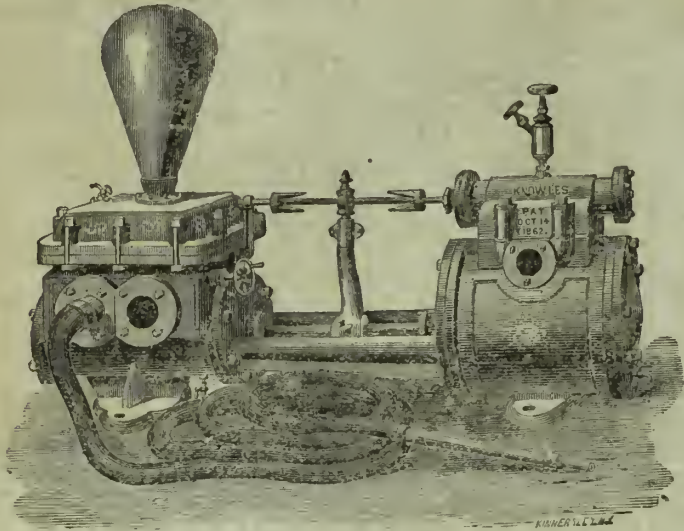
Plain Japanned,

Planished and Stamped

TIN WARE,

112 and 114 Battery Street,

SAN FRANCISCO.

KNOWLES' PATENT STEAM PUMP.

It has no Crank or Fly-Wheel, and has no dead points where it will stop, consequently it is always ready to start without using a starting-bar, and does not require hand-work to get it past the center. Will always start when the steam cylinder is filled with cold water of condensation.

CENTRAL PACIFIC R. R. OFFICE OF THE GEN'L MASTER MECHANIC, SACRAMENTO Cal. January 14, 1873.

A. L. FISH, Esq., Agent of the Knowles Steam Pump—Dear Sir: In reply to your inquiry as to the merits of the Knowles Steam Pump, in use upon this road, I will say that it gives me great pleasure to report that they have performed their work well whenever called upon. In no instance have they failed. We have now over 30 of them in use on this road as fire engines, and pumping water for shop and station use. I consider the Knowles Steam Pump the best in use, and prefer it to any other.

Yours, truly,

A. J. STEVENS, General Master Mechanic.

A. L. FISH, Agent Knowles' Steam Pump—Dear Sir: In answer to your inquiry, we state that the highest award for Steam Pumps at the Eighth or 1st Mechanics' Fair in San Francisco, was a FIRST PREMIUM and Diploma, awarded to Knowles' Patent Steam Pump, as published in the Official List September 23d 1871.

A. S. HALL-DIE, President Board of Managers.

W. H. WILLIAMS, Sec'y Board of Managers Eighth Industrial Exhibition, M. I.

WE BUILD AND HAVE CONSTANTLY ON HAND

The Largest Stock of Pumps in the World,
And for Every Conceivable Purpose.

SOLE AGENT ON THE PACIFIC COAST FOR THE
CLAPP & JONES SUPERIOR STEAM FIRE ENGINE,
Challenging the World!

THE CELEBRATED BOOMER PRESS.

For Wine, Cider, Lard, Paper, Wool, Hops, Hides, Tobacco, Rags, etc.—the Most Powerful in Use.

A. L. Fish, Agent,

Nos. 9 and 11 First Street, San Francisco, Cal.

P. S.—All kinds of new and second-hand Machines on hand.

4v29-lam-bp-3m

PUMPS.

"PEOPLE'S PUMP."

THE FARMERS' FRIEND.

BEST IN USE FOR HOUSE AND STOCK PURPOSES. CAN
BE USED WITH HOSE FOR WASHING
WAGONS, WINDOWS, AND
WETTING GROUNDS.

SEND FOR CIRCULAR.

DUNHAM, CARRIGAN, & CO.,

Successors to

Conroy, O'Connor & Co.,

San Francisco

BOWEN'S PREMIUM YEAST POWDER.

Bowen's Premium Yeast Powder.

Bowen's Premium Yeast Powder.

Bowen's Premium Yeast Powder.

Bowen's Premium Yeast Powder.

Best in the World! Every Can Guaranteed!!

For Sale in Every Village, Town and City on the Pacific Coast.

Ask Your Grocer for It.

Manuf'd by BOWEN BROS., 432 Pine St., S. F. and 11th & 12th Sts., Oakland.

The attention of Wool Growers is continually invited to the

**Thoroughbred Stock Bred and Kept on the
MERINO RANCH,**

Situated at Niles, Alameda County, Cal., only five minutes walk from the station, junction of San Jose and C. P. R. R. Parties desiring to visit our ranch can leave San Francisco at 3 o'clock P. M., and have an hour at the ranch, returning on Overland train at 6 P. M. Or coming out in morning, can return to city at 11 o'clock A. M. The proprietors make the

THOROUGHbred SPANISH MERINO SHEEP A SPECIALTY,

Believing them to be the BEST SHEEP IN THE WORLD, and are constantly receiving fresh importations from Addison County, Vermont.

Our flock are all Imported Sheep, and have no superiors in the United States. We always have on hand choice young RAMS and EWES, of all ages, for sale at Reasonable Prices, giving time, if required, to responsible parties. City Office—215 California Street, San Francisco.

SEVERANCE & PEET,

Importers and Breeders of Spanish Merino Sheep.

10v7-60w

The Hoadley Regulating Cut-off
THRESHING ENGINES.



The above cut represents the Hoadley New Style Threshing Engine, 5-horse power, with Patent Cut-off Governor. We also have the same style and size, with HOADLEY'S NEW PATENT STRAW-BURNING FIRE-BOX. This new Engine has been thoroughly tested, and we are prepared to warrant it to give satisfaction. OUR GUARANTEE GOES WITH EVERY ENGINE INTO THE FIELD. This new engine is fitted out complete, with High Seat, Foot-Board for Driver, California Roller Brakes (not shown in engraving), Iron Hub Patent Wheels, Forged Bent Axle, and all Mountings in Perfect Order.

THE

Hoadley Straw-Burning Threshing Engine

Is no heavier than wood-burning engines of same power, and is unquestionably the Best Threshing Engine in the world. It is Lighter, Better Made, Safer, and will do More Work than any other engine of same size and price ever built. THIS FACT IS INDISPUTABLE.

Farmers and Threshers desiring to buy Straw-Burners for coming season, should secure their Engines Early, as the number is not large, and many are already engaged. All Engines will be tested in presence of customers, when required. Send for Circular and Prices. Address,

TREADWELL & CO., Sole Agents, San Francisco.

DURYEA'S SATIN GLOSS STARCH

AND

DURYEA'S IMPROVED CORN STARCH

Are the Best in the World.

USE IT ONCE AND YOU WILL USE NO OTHER.

For Sale by All Grocers.

FAC-SIMILES OF PRIZE MEDALS AWARDED THE



MESSRS.

OVER ALL

"PERFECTION OF QUALITY OF THEIR GOODS"

DURYEA

COMPETITORS

The Messrs. Duryea have succeeded in refining Starch to entire purity and developing its entire strength and clearness, an improvement that will be readily perceived in the great strength of the starch, the superior luster that it gives, and in its reliable uniformity. Much of the so-called starch contains from one-fourth to one-third foreign matter, readily perceived by sourness, mustiness, or a golden yellow tinge, peculiar to inferior starches, a color not desirable for one's linen, but insupportable from the use of common starch. They pledge themselves to the public to give a uniformly superior article, from one-fourth to one-third stronger than any other starch in the world, and at the common market rates.

**EGERTON, ALLEN & CO., Sole Agents for the Pacific Coast
San Francisco, California.**

60w-bp

RELIABLE.

UNEQUALED.

THE

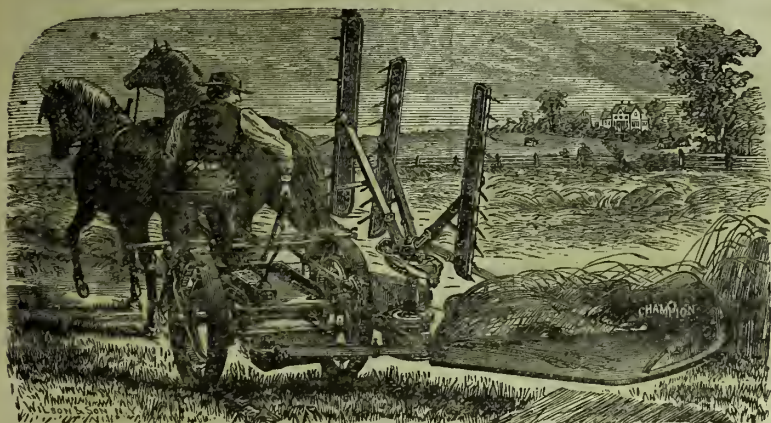
ONE PRICE DRY-GOODS HOUSE,

42, 44, and 46, Third Street, San Francisco.

THE GOODS ARE ALL MARKED, IN PLAIN FIGURES,

PEIXOTTO & SILVERMAN.

The CHAMPION REAPER AND MOWER.



THE CHAMPION SELF-RAKER.

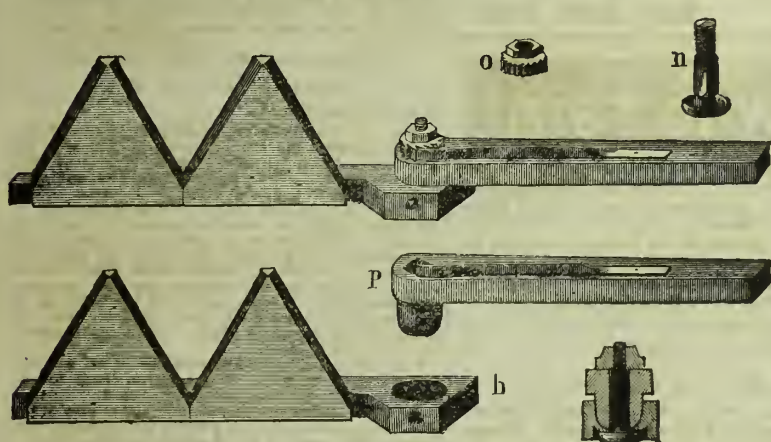
CHAMPION of the WORLD.

Everywhere Victorious.



THE CHAMPION MOWER.

Baker & Hamilton,
Hardware, Improved Straw-Burning Engines, Sweepstake Single Gear Headers, Etc.



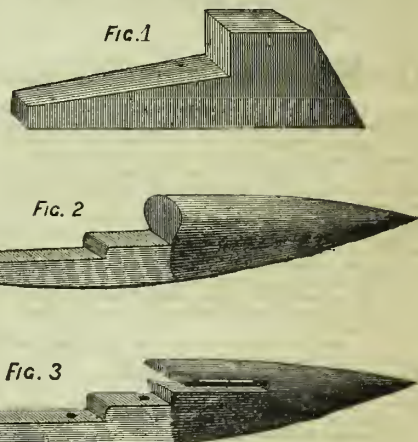
THE CHAMPION PATENT KNIFE-HEAD AND PITMAN CONNECTION.

Address,

Sole Agents for the Genuine Pitts' Buffalo Threshers, Haines' Headers, Etc.

The Champion has proved itself to be the BEST MOWER and BEST SELF-RAKE REAPER ever brought to this Coast. It is the only machine which will cut on the steep side hills perfectly. The frame is Wrought Iron, and it is made in the best possible manner. Farmers, ask your neighbors who have used the CHAMPION how they like it compared with the Cast Iron Machines formerly sold on this Coast. The Price is within the reach of all. Send for Circulars.

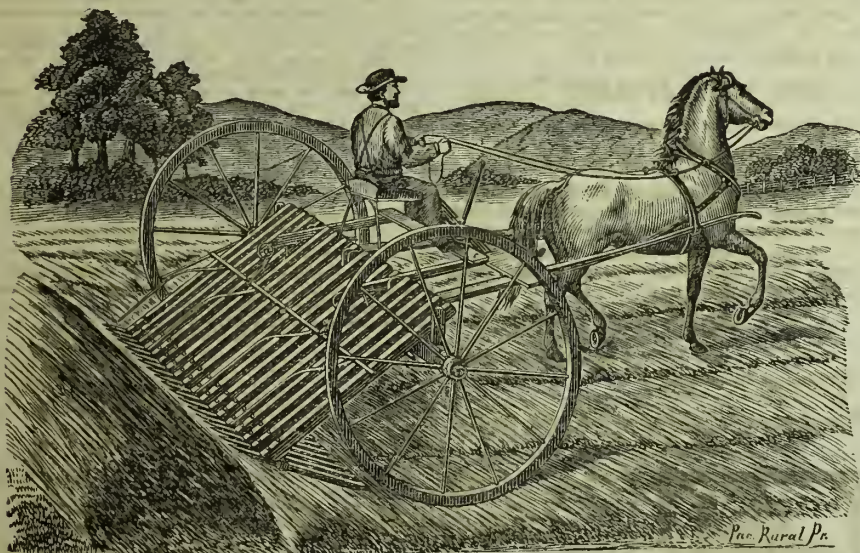
THE CHAMPION GUARD FINGERS are formed from solid pieces of metal that are first cut into blanks as shown in Fig. 1, and then rolled solid, without a slot and without a weld, as shown in Fig. 2, after which the slot is sawed out of the solid metal as represented in Fig. 3. They are then ground and tempered, leaving a perfect, smooth-cutting edge, and securing the greatest possible uniformity in size and shape. In tempering, the entire outer surface is made hard and the center left soft and tough, thus making a Guard-Finger perfect in every respect.



THE CHAMPION GUARD-FINGERS.

BAKER & HAMILTON,
SAN FRANCISCO or SACRAMENTO.

Patent Extension Toothed Hay Rake.



Made of the Best Material, Runs Light and is Easily Operated.

Being so regulated by draft of horse as to nearly balance the rake, the operator steadying the lever and holding the teeth to the ground as required.

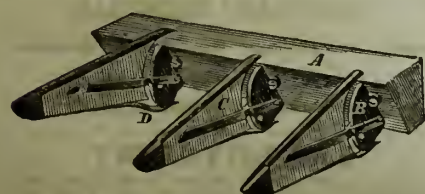
The Hay is Clean, free from Dirt and Dust.

And is not wadded or rolled, as from the Wire Toothed Rake.

The Teeth Rise and Fall Over Uneven Ground.

Gathering hay where other Rakes leave it behind, and are also double pointed, can be used any length, and turned point to point when culled, or a tooth replaced without delay. Also manufacture Wire Rakes of the same pattern.

BONNEY'S PATENT ADJUSTABLE GRAIN LIFTER, FOR HEADERS.



PRICE, \$40.

Manufactured by O. BONNEY,

No. 221 Mission Street, SAN FRANCISCO.

All farmers who wish to save their grain without waste in cutting, should examine these. They can be run at any inclination to the ground, as seen at D, in cut. Are light, strong and durable, and can be adjusted in fifteen minutes, or removed in five when not required, by drawing bolt in malleable shaft, B. Set of 8 for 10-foot header (in putting on which bore with 1/4-inch bit for lag screws), are the cheapest, and give the best satisfaction for any use. Parties can save additional the cost of a set in one day's cutting, where grain is lodged or trinkles down.

Also, HEADER APRONS, GRAIN BELTS and FARMING IMPLEMENTS, Generally.

DUNBAR'S WONDERFUL DISCOVERY.

BETHESDA MINERAL SPRING WATER Of Waukesha, Wisconsin.

We claim Bethesda to be a specific in all cases of Diabetes Inflammation of the Kidneys, Inflammation of the Neck of the Bladder and Urethra, Inflammation of the Bladder, Dropsy, Gouty Swellings, Stoppage of Urine, Albumenuria, Ropy or Cloudy Urine, Brick Dust Deposit: Thick, Morbid, Bilious and Dark Appearing Urine, with Bone Dust Deposits; Burning Sensation with Sharp Pains when voiding Urine; Hemorrhage of the Kidneys, Pain in the Kidneys and Loins, Torpid Liver Indigestion, Calculus, and Female Weakness.

There is no remedial agent known to man that can cure the foregoing diseases as effectually as Bethesda Water. This fact has been demonstrated wherever the water has been used according to directions, which can be had at the General Agent's by application to them. The water is sweet and pleasant to the taste. It can be drunk at all hours. Why should any one suffer while this Water is so easily obtained?

DUNBAR, HENDRY & LAVERY, Sole Agents for Pacific Coast,

fb27-cow-bp-3m

107 STOCKTON ST., SAN FRANCISCO.

DAVID WOERNER,



COOPER,

No. 104 and 112 Spear St., San Francisco

Wine Casks, Tanks, Tubs, Pipes, Beer Barrels, etc., Manufactured at Short Notice and LOW RATES.

LU MBER for CASKS, etc., TANKS, etc. Steamed and dried if required. cow-bp.

J. M. NEVILLE.

G. H. BRYANT

NEVILLE & CO'S FACTORY

113 Clay and 114 Commercial Sts.,
SAN FRANCISCO.

BAGS of All Kinds,
TENTS, All Sizes and Descriptions.
HOSE for Hydraulic Use.
CANVAS, All Numbe's.
TWINE for Sewing, Etc.

LEVI, STRAUSS & CO.,

Patent Riveted

Clothing.

14 & 16 Battery St.,
San Francisco.



These goods are specially adapted for the use of FARMERS, MECHANICS, MINERS, and WORKING MEN in general. They are manufactured of the Best Material, and in a Superior Manner. A trial will convince everybody of this fact.

Patented May 12, 1873.

USE NO OTHER, AND INQUIRE FOR THESE GOODS ONLY. vov-bp

PACIFIC POTTERY, SACRAMENTO.

MANUFACTURERS OF

Sewer Pipe, Drain Tile,

PLAIN FLOWER POTS,

FIRE BRICK.

JOHN B. OWENS, Agent,

No. 30 California Street, S. F.

DEWEY & CO.

American and Foreign

Patent Agents,

No. 224 Sansome St.

SAN FRANCISCO.

Patents Obtained Promptly.
 Caveats Filed Expeditiously.
 Patent Reissues Taken Out.
 Patents Secured in Foreign Lands.
 Assignments Made and Recorded in Legal Form.
 Copies of Patents and Assignments Procured.
 Examinations of Patents made here and a
 Washington.
 Examinations made of Assignments Recorded
 in Washington.
 Examinations Ordered and Reported by TELE-
 GRAPH.
 Interferences Prosecuted.
 Opinions Rendered regarding the Validity of
 Patents and Assignments.
 Rejected Cases taken up and Patents Obtained
 Every Legitimate Branch of Patent Agency Busi-
 ness promptly and thoroughly conducted.
 SEND FOR CIRCULAR.

The Mining & Scientific Press.

Started in 1860, is one of the oldest weekly journals now published in San Francisco. It has been conducted by its present proprietors for ten years, during which period it has been repeatedly enlarged and constantly improved. The active and steadfast efforts of its publishers have gained for its conduct an amount of practical experience greater than any other publishers have accumulated on this coast, of a weekly journal.

The sum paid by us for the best editorial talent obtainable for our special class journal; for engravings, for interesting news and correspondence, and for printing a large-sized, handsome sheet, is unequalled by that of any other American weekly west of the Mississippi. As a PRACTICAL MINING JOURNAL it has no rival on this Continent.

It is the only MECHANICAL, and the only SCIENTIFIC journal of the Pacific States.

Miners, Assayers, Millmen, and Metallurgists in the United States should take it.

Pacific Coast Mechanics, Engineers, Inventors, Manufacturers, Professional Men, and Progressive and Industrial Students should patronize its columns of fresh and valuable information.

Mining Engineers, Superintendents, Metallurgists, Mine Owners and Mine Workers throughout the world should profit by its illustrations and descriptions of New Machinery, Processes, Discoveries and Record of Mining Events.

Intelligent thinkers throughout the land, in high or humble situation, who would avoid literary trash for genuine information, should SUBSCRIBE AT ONCE.

DEWEY & CO.,

No. 224 Sansome street, S. F.

INTERESTING, RELIABLE, SUPERIOR

—THE—

PACIFIC RURAL PRESS.

An Illustrated Agricultural Weekly. Large and Handsomely Printed; Volume IX; Circulation Large; Decidedly Popular; Farmers, Gardeners, Stockraisers, Ruralists, Subscribers.

For the Farm, Cabin and Home Circle; For the Pacific Coast; For Sending East; Examine It; Try It; Recommend It; No Political Creeds or Issues; No QUACK ADVERTISEMENTS; A Helper for All.

The novelty of soil and climate in our new fields of husbandry is producing a progressive order of industry which is prolific with valuable hints to agriculturists everywhere.

Our back volumes contain more reliable information of this coast than any other publication.

Articles Condensed, Able, Pointed, Timely. \$4 a Year. Samples post-paid, 10 cents.

DEWEY & CO., Publishers.

SAN FRANCISCO, CAL.

A Good Binder for \$1.50.

Subscribers or this journal can obtain our Patent Elastic Newspaper File Holder and Binder for \$1.50—containing full title of the paper on the cover. It preserves the papers completely and in such shape that they may be quickly fastened and retained in book form at the end of the volume, and the binder (which is very durable) used continuously for subsequent volumes Post paid, 25 cts. extra. It can be used for Harper's Weekly and other papers of similar size. If not entirely pleased, purchasers may return them within 30 days. Just the thing for libraries and reading rooms, and all who wish to file the Press.

Don't Stop the Press.—A subscriber in Tulare county, in sending us the renewal of his subscription, adds the following: "Don't stop the Press; I'd just as soon you would stop a portion of my bread. It is a welcome friend to our fireside. Wife is just as deeply interested as I am, and would sooner sacrifice her tea than forego the pleasure of reading the Press. The young Grangers in our family, with sparkling eyes and swift coming feet, gather around to look at the ever new and unfolding wonders to be found in the Press. I repeat it, don't stop the Press." D. W. VISALIA, Nov. 3d, 1874.

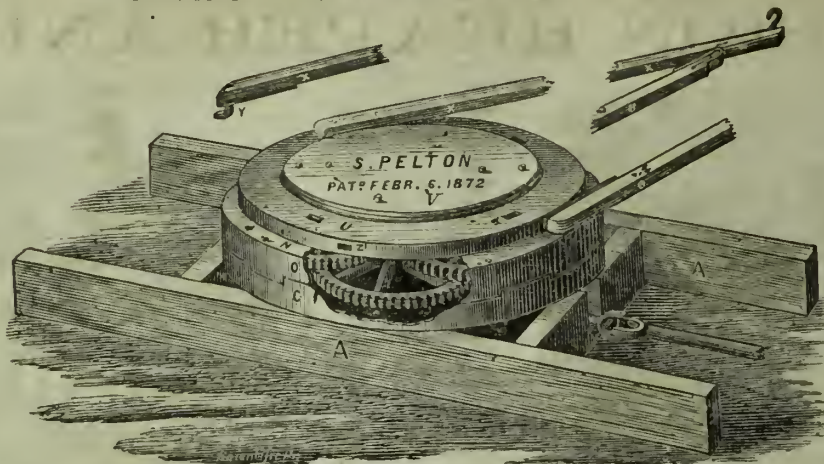
In either cold, hot or hard water, the GRANOERS SOAP has no rival. For woollen clothing it is unsurpassed. It does not injure the finest fabrics or colors. Falkenburgh & Co., Oregon street, San Francisco, are the manufacturers. If you use it once, you will, as we do, use no other. Every grocer sells it.

GIVE YOUR FULL ADDRESS when you communicate on business to this office, especially in returning newspapers. The fact that your name is on our subscription list is of no assistance to us. Without sending your post office address we should have to look over thousands of names to find yours.

The Employment Office of Talbot & Co. has no connection whatever with the Granges.

I. G. GARDNER.

SUBSCRIBERS who by mistake get two copies of this paper, should notify us without delay.

Pelton's Six-Fold Horse Power.

Having made new arrangements with Mr. McKenzie, I am prepared to supply my powers to all persons favoring me with their orders. All powers hereafter manufactured can only be obtained of me or my agents. In future they will be made under my directions and specifications, and nothing but a prima quality of Machinery Iron will be used in their manufacture. I have greatly improved the application and bearing—my Levers—which will give them ample strength. All powers fully warranted. For further information, send for Circulars and Price List to

S. PELTON, Patentee,
San Jose, Cal.

1479-1am

HEALD'S Business College.

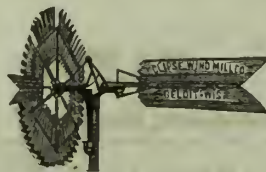
No. 24 Post Street, San Francisco.

The largest and best Business College in America. Its teachers are competent and experienced. Its pupils are from the best class of young men in the State. It is under the very best discipline. Its scholarships are good in the Thirty-Six Bryant & Stratton Colleges. It employs four of the best penmen in the State. It has the largest rooms, the largest attendance, and the most complete system of business training of any commercial school in the country.

For information, call at the office, 24 Post street, or address, for circulars,

E. P. HEALD.

President Business College, San Francisco

ECLIPSE WINDMILLS

Cheapest, Strongest, Best. Eight years experience. Mills 10 feet to 60 feet in diameter—every mill warranted. Send for illustrated circulars.

CHAS. P. HOAG, General Agent,

18 Fremont Street, San Francisco.

THE CHEAPEST IRRIGATOR KNOWN.

Real Estate Agency,

900 Broadway, OAKLAND.

—BY—

T. B. BIGELOW, E. BIGELOW and
WM. K. ROWELL.

Parties seeking homes or looking for property for investment in this rapidly-growing city, noted for its educational and many other advantages, are invited to call on the above agents, who have a large list of very choice improved and unimproved property for sale.

They also deal in FARMING AND GRAZING LANDS, and invite correspondence from any who may wish to buy or sell this kind of property.

Apr3-1am-hp

LAND PLASTER.

(Sulphate of Lime.)

This fertilizer is especially well adapted to California lands and climate, and is destined to be used to immense advantage.

PRICES GREATLY REDUCED.

In bulk, \$10 per ton; in barrels or bags, \$12.50.

Golden Gate Plaster Mills.

LUCAS GESNER & CO.,

215 and 217 MAIN STREET, SAN FRANCISCO.

RURAL EXCHANGES.—If any of our readers desire to subscribe for an agricultural paper published elsewhere than in the South, the best place to send their money is not New York, or Philadelphia, or Boston, but San Francisco. This should not be understood as undervaluing the many deserving publications which come from the former places, some of which may be read with profit anywhere, but as our estimate of the comparative adaptation of the Eastern and the Pacific coast journals to our climate, crops and circumstances. In this respect the advantage is so clearly on the side of the latter that we would sooner pay the \$4 a year charged for the PACIFIC RURAL PRESS (weekly) for instance, than to obtain any three Eastern agricultural journals, were that possible, for the same money. The Press is most ably conducted, and is one of the best papers on our exchange list. Published by Dewey & Co., San Francisco, at \$4 a year.—Rural Carolinian, Charleston.

WAKELEE'S Squirrel Exterminator.

The Best and Cheapest Poison for the Speedy Destruction of Squirrels, Rats and Mice.

H. P. Wakelee, Druggist, San Francisco.

This POISON is now well known throughout many of the counties of this State, and has given complete satisfaction.

WAKELEE'S SQUIRREL EXTERMINATOR saves time by being fully prepared for use, will not deteriorate by age, prevents loss of both time and money in preventing the distribution of inefficient mixtures. Compared with all other poisons it is least liable to cause accident to man and the domestic animal; it is of smaller bulk, and therefore more convenient to handle in the field.

That Wakelee's Squirrel Exterminator is the Best and most economical Poison, hundreds of farmers will cheerfully bear testimony. The following is what several consumers—well known citizens and farmers think of it:

[From General H. M. Naglee, San Jose.]

Messrs. RHODES & LEWIS, Druggists, San Jose:

At your request, I would state that Wakelee's Squirrel Poison is fully prepared for use, slaughters the squirrel in the most satisfactory manner, and is superior to anything heretofore used by me.

HENRY M. NAGLEE.

[From the Squirrel Inspector, San Lorenzo District, Alameda County.]

H. P. WAKELEE:

Dear Sir:—I have used your Squirrel Exterminator in this district, and find that it fully comes up to its recommendation, and is the most efficient poison yet used by me.

Squirrel Inspector, San Lorenzo School District.

[From John T. Ward, Esq., Napa.]

H. P. WAKELEE, Esq.:

Dear Sir:—We have given your Squirrel Exterminator a thorough trial, and are perfectly satisfied with its workings. It is a dead shot; fifteen kernels at each squirrel hole will kill almost every squirrel, and after filling up the holes, few are found re-opened.

We poisoned one field, which was badly infested; to secure the crops, we placed the poison two feet from the holes. In almost every instance it killed before the squirrel could get back to the hole. In that field we found blackbirds and meadow-larks dead from its effects, and dogs and cats which ate the dead squirrels were also killed. So completely was the field rid of the vermin, that the grain stood thick as about the stumps and trees, where always before the squirrels had destroyed the seed.

I can recommend your Exterminator to all who are troubled with squirrels. It does all you claim for it, and is the most effective poison I ever used.

Perhaps the best recommendation I can give it is, that after one season's trial, I am so well satisfied with it that I shall use it in larger quantities this season.

Very truly yours,
JOHN T. WARD.

[From well known farmers of San Luis Obispo County, El Paso de Robles Springs.]

H. P. WAKELEE:

Dear Sir:—In reply to your note, we would state that after having given your Squirrel Exterminator a thorough trial, we can unhesitatingly pronounce it the most efficacious and destructive agent we have ever employed against squirrels.

We have used strychnine and phosphorus, and can confidently state that as to their merits, compared with those of your Exterminator, either as regards cheapness or destructibility, the odds are greatly in favor of the Exterminator. Many of our neighbors are using it, and with the most satisfactory results.

The squirrels, many of them, die before they can get to their holes, and fields which a few weeks ago swarmed with the pests, are now comparatively free.

Respectfully yours,
W. D. ILLINGWORTH,
C. D. MOREHOUSE,
W. T. JOHNSON.

[What the farmers of Watsonville, Santa Cruz County, think of "Wakelee's Squirrel Exterminator."]

H. P. WAKELEE:

Dear Sir:—This is to certify that we have bought and used your preparation for poisoning squirrels, or what you call the Squirrel Exterminator, and have found it the best of anything we ever used.

Respectfully yours,

H. C. STRUVE,
DANIEL MCCUSKEY,
CHRISTIAN KORM,
JAMES STRUVE,
W. WILLIAMS,
M. A. DREW,
L. HELLMER.

***** "All who have tried it speak highly of its merits."

SANDERSON & DUNN,
Commission Merchants, El Paso de Robles Springs.

***** "The lot ordered was duly received and was a great success."

WARD BROTHERS, Napa.

***** "You can use my name to recommend it most highly."

CAPTAIN C. P. LOW,
Santa Barbara.

***** "It is all that you recommend it to be. If the farmers will all use it, they will have no further trouble from squirrels."

O. W. MCKELVEY,
Porterville, Tulare County.**H. P. WAKELEE, Druggist,**Importer of Foreign and Domestic
DRUGS AND CHEMICALS.Agent and Manager Golden City Chemical
Works,

Cor. MONTGOMERY AND BUSH STREETS, S. F.

EMPLOYMENT.

I want 1,000 agents to canvass for the COMPLETE HERBALIST, and THE GROWING WORLD. I will give such terms and furnish such advertising facilities that no man need make less than \$200 per month and all expenses—no matter whether he ever canvassed before or not. Address Dr. O. PHELPS BROWN, No 21 Grand street, Jersey City, N. J., and full particulars will be sent by return mail.

How To Paint

A New Work by a Practical Painter, designed for the use of Tradesmen, Mechanics, Merchants, Farmers, and as a Guide to Professional Painters. Containing a Plain Common-Sense Statement of the Methods employed by Painters to produce satisfactory results in Plain and Fancy Painting of every description, including Formulas for Mixing Paint in Oil or Water, Tools required, etc. This is just the Book needed by any person having anything to paint, and makes

"Every Man His Own Painter."

Full Directions for Using White Lead—Lamp-Black—Green—Yellow—Brown—Whiting—Glue—Pumice Stone—Spirits of Turpentine—Oils—Varnishes—Furniture Varnish—Milk Paint—Preparing Kalsomine, etc.

Paint for Outbuildings

—Whitewash—Paste for Paper-Hanging—Hanging Paper—Graining in Oak, Maple, Rosewood, Black Walnut—Staining—Decalcomania—Making Rustic Pictures—Painting Flower-Stands—Rosewood Polish—Varnishing Furniture—Waxing Furniture—Cleaning Paint—

Paint for Farming Tools

—for Machinery—Household Fixtures, etc.

To Paint a Farm Wagon

—to Re-Varnish a Carriage—to make Plaster Casts. The work is neatly printed, with illustrations wherever they can serve to make the subject plainer, and it will save many times its cost yearly. Every family should possess a copy. Price by mail, post-paid, \$1. Address

DEWEY & CO.,

San Francisco, Cal.

Publishers of this journal.

Plummer's California Fruit Drier.

PATENTED DECEMBER 29th, 1874.



This is the Cheapest and Most Economical, Largest Capacity, and Most Speedy DRIER, and gives the fruit a better flavor than any other machine ever invented. It only requires a shed to work under; 2d—has boiler, engine, and steam-pump for irrigating or other purposes, in connection with the Drier or separately; 3d—the cost is one-half less than any other of the same capacity, and there is no danger of burning the fruit. A sample machine is in full operation at our factory, No. 31 BEALE ST. Address,

SPAULDING & BRO.,

San Francisco, Cal.

Send for Circulars.

SEEDS.**PLANTS.**

OF EVERY VARIETY.

Fresh and reliable, such as experience and care only can select.

GRASS AND CLOVER SEEDS, KENTUCKY BLUE GRASS, HUNGARIAN, ORCHARD, ITALIAN RYE, RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL, CHOICE CALIFORNIA ALFALFA, WHITE CLOVER, RED CLOVER, Etc.

Also, RAMIE, JUTE AND TOBACCO SEEDS; together with a fine and complete collection of TREE SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGANTEA, PINUS INSIGNIS, Etc.

For Sale, wholesale or retail, by

B. F. WELLINGTON,

(Successor to E. E. Moore).

425 Washington St., San Francisco. 22v7-ly

Dewey & Co. { 224 } Patent Agt's.

PACIFIC RURAL PRESS

Volume IX.]

SAN FRANCISCO, SATURDAY, APRIL 10, 1875.

[Number 15.]

Mowers and Reapers.

On this page of the PRESS we give illustrations of Walter A. Wood's new iron Mower and also his Self-Rake Reaping Machine. The excellence of the Wood machine has been demonstrated by nearly a quarter of a century of public use, but perhaps the most convincing argument is to be found in the steady increase in sales, which from 500 machines sold in 1853 has increased to 20,430 in 1874; or total number sold in the 22 years, 210,613. The manufactory at Hoosick Falls, New York, gives employment to 700 men, and uses annually in the construction of machines 6,000 tons of cast iron, 1,000 tons wrought iron, 4,000 tons of malleable iron, 100 tons of steel, 80,000 pounds of brass and 3,000,000 feet of lumber.

It is claimed that these machines will cut, if properly managed, an acre of grass or grain per hour, with one pair of horses.

The new iron mower is an improvement on that popular machine, Wood's frame "Prize" mower, and is believed by the inventor to be as near perfection as possible. Among the leading points of excellence aimed for it we note, first—its simplicity of construction. It has few bolts and the bearings, all of composition brass, are fitted so that when worn, new ones can be easily substituted without the aid of a mechanic. Second—the hinge connection between the finger bar with its cutting apparatus and the main frame which is considered a most valuable addition. Third—the balancing of the driver's seat so that the weight of the occupant overcomes that of the tongue and there is no pressure on the horses' necks. Fourth—the draft, which is by a direct rod connection from the frame to the whiffletree, rendering it easy upon the team. Last, but not least, we notice the driver is placed in rear of the cutters, thus avoiding liability to accidents and at the same time giving him perfect control over them.

The harvester is also possessed of many advantages and peculiarities of construction. It is of exceptionally light draft, is durable, having but one driving wheel, which prevents cramping and binding of the gearing, while the simplicity of the rake, and its manner of separating the out grain without entangling it with the falling grain, proves a great advantage. When the separation is effected the grain is compressed in a compact gavel against the wing-board, and delivered at the side of the machine in good order for binding, and out of the track in the next round. A whole field can

be cut down without stopping to bind—an important consideration when help is scarce, or in cutting grain that it is not desirable to bind up immediately. The machine can be driven at a slow walk or on a brisk trot, and the rake will make a [perfect] gavel, without scattering or

Mr. Wood, the inventor, was honored with the title of Chevalier of the Legion of Honor. At the Vienna Exposition the machines received the Grand Diploma of Honor, and their inventor had conferred on him by the Emperor of Austria the Knight's Cross of the Imperial Order of

The agents for the Pacific coast are the Frank Brothers, having their depot at 206 Davis street, San Francisco. The Messrs. Frank are young business men, who have this season taken the agency for the Wood machines, and being assured of their real merit, intend to press their good points upon the attention of our farmers.

In addition to the harvester and mower, the Frank Brothers are agents for the sale of the Buckeye sulkey rake, the Chaplin revolving rake, and the Improved Sweepstakes thresher—all first-class machines. We commend the new firm to our agricultural readers.

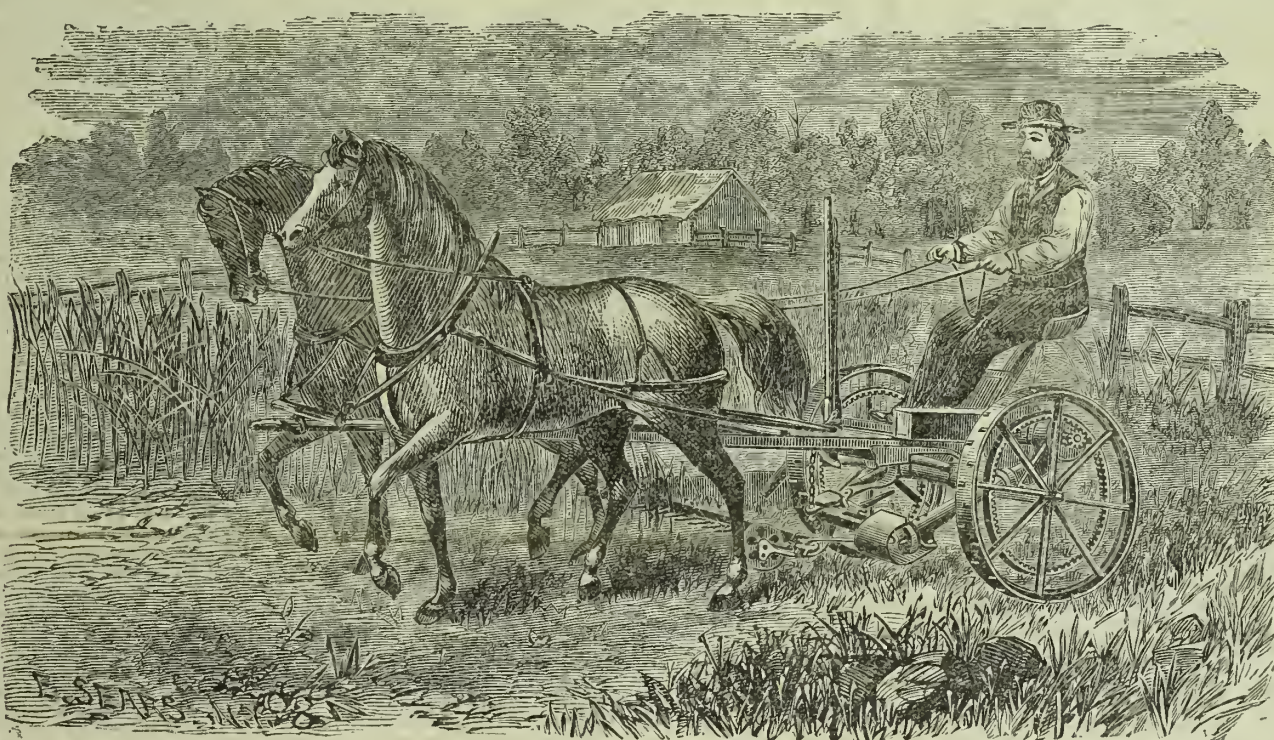
WATER PIPE.—The necessity, in many sections of the State, for utilizing the water supply in the most economical manner, causes the demand for water pipe to increase with the development of our agricultural and mineral resources. While the mild and equable character of the climate renders the expensive and laborious method of laying pipe needed to guard against the severe winters of the Eastern States unnecessary here, the wants of the agriculturalist and miner have made it highly profitable to them to make use

of this means for conveying water from the base of supply to points where it is required for use. So general has this now become that there is hardly a farmer but uses more or less water pipe, while in the mining districts miles of iron tubing conduct the reserved floods of the mountain streams to aid man in unveiling earth's hidden wealth. Prominent among the different qualities of pipe in this market is that of the Graff Tube Works, at Pittsburg, Pa. The pipe of this company has achieved an excellent reputation, and loses nothing by being offered to the public through the agency of Mr. James L. Barker, 406 and 408 Market street. The grades most in demand on this coast vary from $\frac{1}{4}$ inch to four inches in diameter and weigh from .42 to 18.77 pounds per foot.

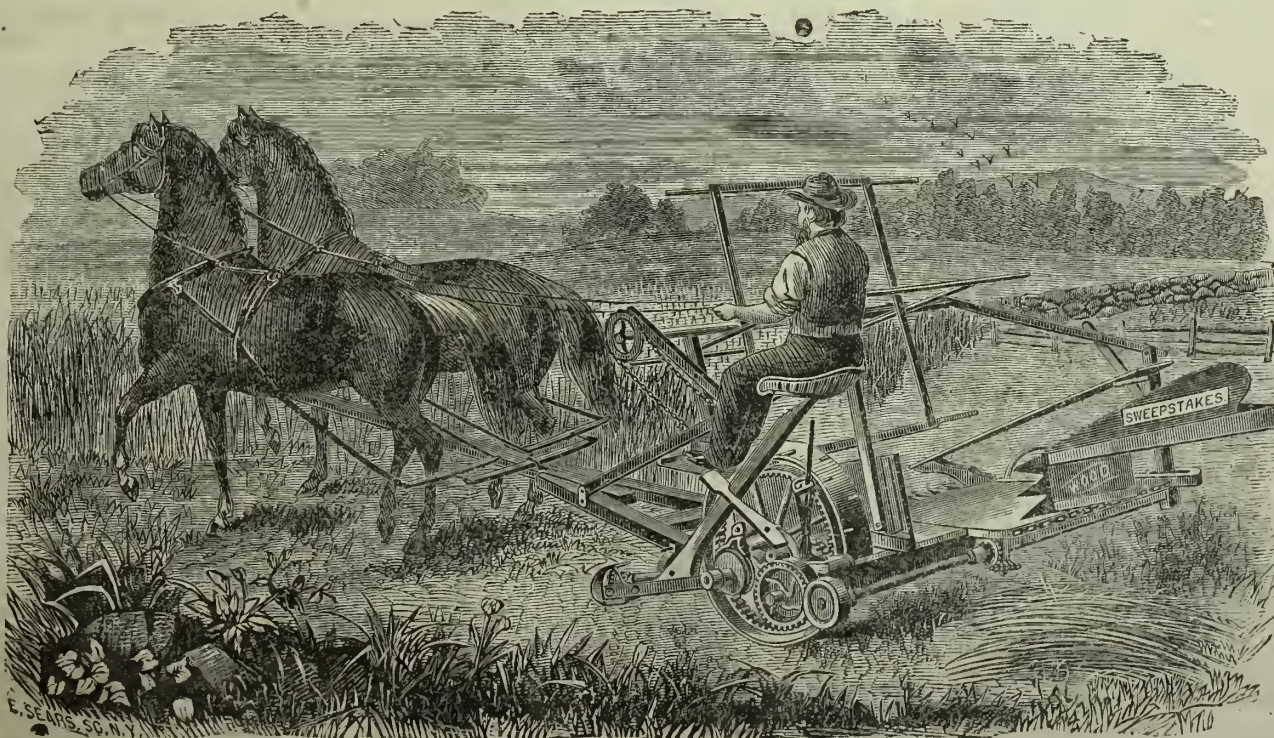
Mr. Barker keeps a large quantity of wrought and galvanized pipe of these dimensions in stock, and offers it at prices which compare favorably with those of other dealers.

WORTH CONSIDERING.—Carr S. Abbott, of Monterey Co., informed us last week that crops look fair, but more rain is desirable. The

grain is in advance of the season in growth which is in its favor should we encounter unfavorable weather from this on. It is the opinion of Mr. Abbott that tree planting at intervals throughout our valleys and barren hills, will eventually do much to moisten the climate. His opinion, too, is borne out by the wisest and most practical scientists of the age.



WOOD'S IRON MOWING MACHINE.



WOOD'S SELF-RAKE REAPING MACHINE.

can be stopped and started at any point on the platform, which will be found very convenient in turning corners, or cutting very heavy or thin grain.

In public competition with their rivals, Wood's machines have been peculiarly favored. At the Paris Exposition, in 1837, they were awarded the first premium, and during the same year

dition to these foreign evidences of appreciation the Wood machines have received a large number of premiums in field trials in the United States. The inventor feels proud of the public recognition of his machine, and is constantly endeavoring to add all the advantages that ingenuity can devise or capital afford to perfect them.

CORRESPONDENCE.

[The RURAL PRESS, in opening the columns of this department to its correspondents, does not desire to lay before its readers anything which is not in keeping with its character and position as an agricultural and family paper. Facts are always thankfully received; and suggestions and matters of opinion on subjects connected with agriculture are also acceptable; though correspondents are to be understood as speaking for themselves and not for the PRESS.]

Growing the Castor Bean.

EDITORS PRESS:—I find in your paper of March 13th a communication from W. A. S., entitled "All About Castor Beans." The writer may be a practical castor bean raiser, but I should judge otherwise; and with all due deference to theory, I think practice the better man. I have been engaged in the cultivation of castor beans for the past eight years, a part of the time manufacturing the beans into oil. I put in from 50 to 150 acres each year, and my experience and observation ought to be worth something to those who think of engaging in the business. My experience does not agree with the writer's statement in many respects. I am well aware it has been an opinion that castor beans are poisonous to all kinds of stock. This is an error as to growing plants. If stock could be persuaded to eat the bean, I have no doubt the effect upon them would be the same as upon a person, making them very sick, and in some instances even causing death; but stock will not eat the beans. In 1871 I planted 175 acres, and in 1872 100 acres, on the bank of the Feather river, below Marysville. Both years, I not only had my own horses, cows, hogs and chickens, but frequently some of my neighbors' stock running in my beans without the least harm to them, and very little to the beans. I find that colts will eat them sparingly, and my milk cows trimmed off the fresh leaves after the feed got scarce and dry, so much so one year that I had to take them out; not that it injured them in the least or their milk, for we used the milk in the family, and made butter, without any perceptible change in the quality.

I think it an advantage to turn in hogs when the beans are too large to cultivate among them, they will keep out the weeds, grass, etc., without any injury to themselves or the crop. I also consider it a mistake in regard to castor beans driving out gophers, etc. I find that in ground in which I have had them planted for two years, both gophers and squirrels are as numerous as ever. For hedges I should think them undesirable for two reasons: 1st, in a country where there is much frost the original plants would kill out; and 2d, they are prolific producers of seed, and if not picked when ripe would pop and fly twenty or thirty feet each way; and as the seed will remain in the ground all winter and grow in the spring, the hedge would become very wide in a few years unless a good amount of labor were bestowed upon it to keep it in due bounds.

Farmers who think of engaging in the castor bean culture, need fear no danger as regards their stock, and they will find it a more desirable crop to raise than corn or broom corn, when we take the trouble, expense and price obtained into consideration. I have never sold for less than \$4 per 100 pounds, delivered at the nearest railroad station or steamboat landing, and I have got as high as \$5. The Pacific Oil and Lead Works, S. F., will contract at \$4, and pay their own freight, and will also furnish parties with seed to plant.

J. R. TOTMAN.

Colusa, March 29, 1875.

From the Regions of Snow.

EDITORS PRESS:—It is a terrible thing to be frozen up. Thanks to briek and mortar and this hard coal and kindlings—these are the salvation of the people. With table drawn up to the hot stove, in which the fire has not gone out for nearly a year, I sit shivering from this cold that penetrates everything, even the ground, which is frozen up several feet deep beneath its cold bed of snow.

The old, old story "How cold it is," is in everybody's mouth. The fat man of 200 pounds can rub his ears and nose with his mittens and can jump about and bear it, but woe to the slender ones! Some of these invest a small sum in going to a warmer climate for repairs and no doubt make 100 per cent. and more by the investment.

On Saturday three persons from here left per steamer "Acapulco," for California, and more will soon follow.

The snow is still deep and in many places in the country drifts, so that temporary roads are made over people's farms and frequently through their barn-yards. The ground is frozen several feet deep, the streams are of ice and icicles are pendant from the penstocks which are also frozen up in some places.

How queer it seems to be melting snow upon the oven (two feet of which has fallen in the last two weeks) and read in the RURAL PRESS a

week old, that strawberries are expected in the San Francisco market in a couple of weeks.

Just now the people of the Eastern Slope are not only talking of cold weather and of the sufferings from drought and the grass-hoppers by which a portion of the country has been afflicted, but a re-action is observable from the general prosperity which the business of the war produced. High prices of farm produce as well as of everything else, with plenty of money, have been realized; but at present there is a common murmur of close times. Still everybody is willing more and more to run in debt for real estate. No one thinks of "paying down." Every one says that money is worth a percentage over everything else and people are willing to submit to a "shave" to get it. At the same time an offer of five to twenty per cent. credit will insure sales of land at good, round prices. The buyer is rich in his broad acres; the seller is rich in his mortgage and he tosses that he escapes taxation by being in debt, as his debts balance his dues. Of course a bitter day of reckoning will come sooner or later. Even now, in this State of inflation, money commands a premium in all transactions. But of this item the application will apply elsewhere. The bulls and bears and money jobbers everywhere defy the power of Congress to regulate the currency, as per Constitution of the United States, and while Congress looks on stupefied and the people in their innocence take it for granted that there is no remedy.

What a sublime idea that Congress shall have power to regulate the currency and yet is powerless to do it. And one is led to exclaim "How long will the combinations of capital oppress the people!" The Patrons of Husbandry must solve the problem. I. A. W.

Little Falls, N. Y., March 22d, 1875.

Los Angeles County.

[From Our Own Correspondent.]

MESSRS. EDITORS.—Since last writing the larger portion of the northern side of this county has been visited on a line running from north to east. Commencing at Truxton, the terminus of the Independence railroad on the Pacific Ocean, its general line of survey was followed, including valleys, plains, foothills and mountain branches. Along the sides of the mountains, the bee-keepers are located. The quantity and quality of the honey produced here, are too well known to receive more than a passing notice. All the new improvements in the construction of hives are occasionally found, together with the best methods for extracting the honey from the comb (when thought advisable); a clear, detailed description of which could not be given, unaccompanied with a wood-cut engraving.

There is a bee-keepers' association organized in this county, numbering many enterprising and intelligent members, some of whom have promised to become contributors to your columns. The strip of country lying adjacent to the mountains, is generally well adapted to the cultivation of tropical fruit and the grape. Much might be said with reference to the vineyard and orchard around San Gabriel; but as this region is so well-known and has been so fully written up, it was thought best to give more attention to the newer settlement.

The Duarte rancho on this range, five miles from El Monte, was settled about eighteen months ago. They have a school and church, water for irrigating, expect soon to have a mill, and are near the line of the Independence railroad. Several thousand tropical fruit trees have been set out, and many substantial improvements already made. There is little frost, and fruit on Dr. B.'s place is said to have never failed. It is also a grain-producing district. Eighty bushels to the acre in corn is not an unusual crop. It is but a short distance from this place to the Santenneto rancho, recently purchased by a citizen of San Francisco, it is a id, for the good round sum of \$200,000. I understood that the same changed hands a few years ago for \$18,000.

Owing to the immigration to this county, lands have rapidly advanced in price within a few years.

The Azusa rancho and neighboring settlement lie a few miles further east. A great variety of products is found here, both agricultural and horticultural, such as small grain, corn, potatoes, pumpkins, castor beans and fruits of almost every kind. I was informed that tobacco was first successfully raised in this place by Mr. Dalton in 1842. A few acres were cultivated last year of the following varieties: Turkish, Connecticut, Orinoco, Kentucky and Havana; and preparations are already made for a much larger planting the present season. Others, also, in the neighborhood, have tried the experiment of tobacco culture, on a small scale, it is true, but with entire success. The climate and soil here are well adapted for raisins and wine; the Royal Muscatel yielding about four cents per pound in raisins and about seven cents per pound when made into Angelica wine.

I was informed that grapes commanded the very highest price in the market from this rancho. As there is little or no frost here, potatoes are frequently left in the ground during the winter without injury. Tomatoes, also, both here and in many other places near the mountains, grow the year round. A. C. K.

El Monte, March 29th, 1875.

From Napa County.

MESSRS. EDITORS:—In our tranquil community there are not many events of an exciting nature, but occasionally some local question arises which to ourselves is of immense interest. For some time past—in fact, since the first opening of the valley, the railroad topic has been one of increasing interest, as the need of it has been more keenly felt from year to year.

At last a motion is on foot to build a good wagon road through Patah canon, which is the natural outlet of the valley, to connect with the railroad at "Winters." The survey has already been made. The distance will be about fifteen miles, all on a down grade, thus shortening the road one-half from the present route, which you will perceive will be of very material aid to the farming community here, being a decided improvement on the present long mountain road to Napa.

It is with sincere regret that most of the old settlers here contemplate changing their pleasant associations with the Napa people, with whom they have been connected in business transactions so long, but the heavy tax on hauling grain such a distance is felt so keenly that it has become necessary to build a better route, which can be done through Patah canon, in time to haul off the coming crop of grain.

From present indications there will be heavy crops of grain here this season; the late sowing suffered some from severe frosts and continued north winds, but the recent grateful showers have revived and refreshed the crops, and the whole face of nature seems to smile in vernal beauty. Just while I write the welcome dripping of the rain falls with a continuous and dreamy sound. It brings a prophecy of abundance and prosperity to a country highly favored by the gifts of providence. POMONA.

Berryessa, March 28, 1875.

From San Diego County.

EDITORS PRESS:—There are no local items worthy of note. I am trying three agricultural experiments: First, to ascertain the amount of hay per acre from alfalfa without irrigation, and amount by irrigation. I have been engaged for more than two years in ascertaining the facts. I guess at nothing; I weigh my hay and get the cubic feet.

Second, the amount by weight of butter, obtained from a given number of cows each week during the year, without giving them hay; the same herd, (40 cows), with hay; the same with green feed, furnished cut; and the same allowed to run at large on green alfalfa; under these and other conditions, alternating regularly in order to obtain satisfactory results.

Third, is live fencing. Well, when I am satisfied, I intend trying to put these matters in ship-shape, or at least as you may systematize them for the RURAL.

A single experiment proves little or nothing in agriculture. Patience, close observation, long continued, and a fixed determination to labor under difficulties, if necessary, are some of the prerequisites to demonstrate agricultural facts. H. A. HAMER.

San Jacinto, March 8.

[We would be pleased to have our correspondent report progress in these matters.—EDITORS PRESS.]

Bee Business in San Diego County.

EDITORS PRESS:—There are at Monsuratti twenty bee ranches in ten miles square. Dr. S. E. Wight, of Monsuratti, in 1874, cleared from 28 stands of bees, \$545 20, and increased to 110 stands. This looks unreasonable, but I have it from his own books. We challenge the world to heat us in quantity, quality and flavor of honey produced in San Diego county.

There is a company organizing to build a large flouring mill at Palo Mission, in this county. S. J. CROMBIE.

San Luis Rey, March 20, 1875.

Cranberries in California.

EDITORS PRESS:—One of your subscribers wishes to know where he can get cranberry plants. The gentleman can get all the information from the undersigned. As soon as I have time I will give you all the information needed in the cultivation of cranberries. There is no better land than tule land. I have grown cranberries, cultivated, for twenty-seven years in New Jersey. I want to plant them in California. H. NYLAND, Fruit Grower.

Brannan Island, Rio Vista Co., April 5, 1875

[We shall hold Mr. Nyland to the above promise, and will be thankful for any information on the above subject.—EDS. PRESS.]

THE LIFE OF LOCOMOTIVE WHEELS.—It is seen by the returns of the London and North-western (Eng.) Railway, made to Parliament in the year of 1873, that their locomotives average a run of about 15,000 miles a year, and that the usual term of service of a set of chilled wheels is about seven years,—or a run of 105,000 miles,—a little more than four times round the world. Passenger cars traverse about three times the distance each month or year that an engine does. First-class cars are not subjected to such continuous wear as inferior ones; more rest is given to the wheels. Such cars are heavier, and consequently bear harder on the axles, and hence are more liable to heat.

SHEEP AND WOOL.

Wool Market.

With the exception of an improved tone, the Woolmarket remains as reported last week. Quite a number of manufacturers visit the market, and their purchases, though only to supply immediate wants, have been sufficient to check the downward course of prices. If we except carpet stock, Fall California has found a more active demand than any other description. This was owing chiefly to a lack of confidence which holders have had in the future of the market, and they have been forcing matters; but with heavy sales during two weeks, more tone has gradually crept into the market, and at the close prices were firmer than they have been for weeks. The goods market continues quiet, but an improvement is looked for toward the close of the month. Sales for the week have been, 1,106 bales of Fall California, at 14½¢@25¢; the latter for very choice; 150 do Spring do, at 27½¢@30¢; 55,000 pounds scoured do, 68½¢@72¢; 3,000 bales Donkoi, supposed at 18 cents, gold; and 479 do Greek, 80,000 pounds East India, and 40 hales Rio Grande, private; 140 do Montevideo, 35¢@36¢; 50 do Cape, at about 34¢; 1,500 pounds Eastern Texas, 33½¢; 2,500 pounds Fall do, 31¢; 1,000 pounds do, 27½¢; 3,000 pounds scoured do, 50¢; 25,000 pounds Western do, 28¢@30¢; 260 bales Oregon, 40¢@42½¢; 2,000 pounds Georgia, 40¢; 20,000 pounds X and XX Ohio fleece, 53¢@55¢; the outside price is rather above the market, as choice lots can be purchased at 53 cents; 5,000 pounds super pulled, 48¢; and 170 bales do, 130 do X, 30 do combing, and 5 do black, on private terms.

Boston, April 3.—In the Wool market a fair business has been done, with a little lighter feeling for fine fleeces. As recent sales have considerably reduced stocks, medium and coarse X Ohio continues to bring a higher price than choice XX, and desirable lots are difficult to find. Michigan and other fleeces remain about the same, with sales of 1,300,000 lbs. during the week, at 49¢@52¢. Pulled Wools continue in demand, and are quite firm. Good lines of super are most sought after, and readily command full prices. The transactions in pulled have been 268,000 lbs. for the week, at 43¢@56¢ for super and X, principally good and choice super from 50¢@56¢. California Wool has met with a good demand, and prices are steady. Sales have been 304,000 lbs. of which 96,000 lbs. were Spring at 28¢@30¢, and 208,000 lbs. Fall at 20¢@28¢; the latter price, however, is a very extreme figure, and good average lots of Fall will not command over 20¢@22¢. Receipts of Fall lately have included some very choice lots of this description, and receivers have been able to place it on that account. Eastern buyers will move very cautiously so far as the new Spring clip is concerned, gold rates are high, and freights are also so much higher than last season, that prices will have to open low to induce active movements. Sales of the week comprise Ohio and Pennsylvania fleeces, X and XX, and No. 1, at 52¢@55¢; Michigan, Wisconsin and New York fleeces, at 49¢@52½¢; washed and combing, 58¢@66¢; unwashed combing and delaine, 42½¢@45¢; scoured, 54½¢; tub washed, 40¢@54¢; super and X pulled, 43¢@56¢; California Spring, 28¢@36¢; do Fall, 20¢@28¢.

Breeding Sheep for Long Wool and Mutton.

The following paragraphs are extracted from an address delivered before the Agricultural Society of New South Wales, by W. P. Gordon, a prominent Australian breeder of sheep:

"I may generalize by saying that the Lincoln and Romney are natives of wet lands, producing rank grass. The Leicesters are kept on better lands, and the Cotswolds, the Downs, and their various crosses, on short, sweet, hilly pasture, the aromatic herba of which are principally the cause of the good flavor and high price of their flesh. The good sheep farmer will be guided by the fitness of his land for the breed he selects to keep; if he has some alluvial flat, with a fair run back to sound, hilly country, he can keep a larger animal than he would be able to do on a hilly country alone, thinly grassed.

"As there are many who are ignorant of the great differences between these breeds, I would say: 1. Do not cross any Leicester or Lincoln ewe with another breed; especially avoid a Downa cross if you want good wool. 2. If commencing a flock with merino ewes, select large, sound, four-year-old sheep, and keep them healthy with salt. 3. Having obtained a good cross, do not go to another breed to cross again. 4. Do not use a cross-breed ram because he is to be had cheap from a neighbor, if you want to save time and money. 5. Do not sell your best ewe lambs because they are the first fat for the butcher, if you want to continue breeding a good paying flock. 6. Shelter from drenching winter rains, and long-wooled sheep will repay you for all the comfort they enjoy, as well, or better, than any stock you can keep."

CAR WHEELS.—A St. Louis company are producing car wheels with steel tires, which are said to be as much superior to iron wheels as steel rails are to iron rails. The distance an ordinary wheel will run is said to be about 50,000 miles, while it is claimed for the steel-tired wheel that it will have a life of about 400,000 miles.

The Horse.

What Horses Shall Farmers Breed?

This question is constantly coming up among those farmers who are seeking to breed a class of horses that shall sell for high prices to gentlemen wanting a stylish team, or a fast road horse. The consequence has been that those who do not make breeding a specialty have been breeding to everything new that was sufficiently puffed; as Black Hawks, weedy thoroughbreds, etc., breeding away from the necessities of the farm, or that class of horses adapted to farmer's uses, in hopes that now and then they might succeed in getting a \$400 or \$500 horse for fancy use. Thus the stock for farm and general purposes has constantly degenerated, until you can buy all you want of these classes for from \$45 to \$85 each; and with this class of horses it will take three to do the work that two staunch, muscular horses ought to do.

Let us look a moment at the importance of farm horses as compared with those of other classes. There are about 2,800,000 farmers in the United States. If each farmer required an average outlay of the labor of two horses, there would be needed for the uses of the farm 5,600,000, or fully 60 per cent. of the whole number of horses in the United States. Now, the farmer well knows that a stout, able, muscular horse, weighing from 1,200 to 1,400 pounds, is none too heavy for the various labors of the farm; neither are they too heavy for general utility outside the farm, as omnibus and team horses in cities; for dray, and other classes of medium and heavy work, they are all right. Why not, then, begin now to breed such?

The *Western Rural* has asked this question more than once in y. ars past, and has advised how this may be done. It will perhaps bear repeating.

Select roomy mares, of not less than from 1,100 to 1,200 pounds weight, and as near to good models of muscular development as may be; then, if stylish in action, so much the better. Select no mare unless she is intelligent, gentle and well-broken, if she has been worked at all. If she has not been broken, reject all that show a skittish, uneven temper, for this can seldom be bred out, without great trouble and pains; and as it costs but little, if any more, to begin right than wrong, it certainly will pay to select carefully.

Give up all fanciful ideas, if any such have been entertained, of breeding fancy horses. The breeding of such can only be accomplished successfully by men who have capital and experience in the business; and, here, again, a dozen fail where one makes a fortune. If you want extra heavy horses of say 1,400 pounds and over, breed these large, roomy, selected mares to some good, full or half-bred Percheron or fine Norman, the cross of half-bred, to have been on some large, fine mare, and if with a good dash of thorough blood, so much the better.

If you want a 1,200 or 1,300 pound horse, that shall be stylish, active, muscular and enduring, then select the best large, staunch thoroughbred you can find, as the sire for your colts; or, in lieu of this, a muscular horse, the produce of a large thoroughbred upon some large, fine mare.

Thus you may get colts that will be able for any farm work, and that, when you want to sell, will always command the money they have cost; for there is as little profit in farming with weedy, underling horses, as in attempting to get rich by feeding gaunt, half-starved, scrubby cattle.—*Western Rural*.

Importation of Norman Horses.

E. Dillon & Co., breeders and importers of Norman horses, write us as follows: "We arrived in New York March 21st., on the steamer *Canada*, with four Norman stallions and five mares, direct from Normandy, France; had a rough voyage of 19 days on the Atlantic. Stock are in fair condition; will rest a few days in New York, then ship to our stables at Normal, Ill. This has been an unfavorable winter for shipping stock across the Atlantic. Out of a lot of ten head of stallions shipped from Europe but five arrived in New York, and those in very poor condition. We have made six importations from France—thirty-five stallions and ten mares; we have lost but one horse. We have now on hand one hundred head of Norman stallions and mares, as fine a herd as there is in the world."

DARWINISM.—There is one objection to Darwinism, says a late writer, to which little, if any, attention has been given: For example, the nearest creatures to man in form are not the nearest in intellect. The elephant, and dog and horse, which have no affinity to man have a far closer intellectual affinity than those pets of Darwinism, the gorilla and chimpanzee. Again, man is omnivorous—the stronger races of men, from the Greeks before Troy to the English of to-day, are primarily carnivorous. But no monkeys are carnivorous. If a man is to be developed from a lower creature, he is nearer to the monkey in form, but to his faithful friend the dog in mind.

An interesting phenomenon has recently been observed in Cadunk, Lily and Lake ponds, at Southington, Conn. Decomposition of vegetable matter on the bottom is producing carburated hydrogen gas, which may be ignited at this season by applying a match at holes made in the ice.

USEFUL INFORMATION.

Wheeled Vehicles.

The history of locomotion on wheels is one which takes us back to the very origin of all history. The horse was undoubtedly the animal whose labor was first utilized by man; but no doubt he was employed many centuries before the wheel was known as a vehicle of locomotion or transportation. Carrying loads was the first occupation of this useful animal; next he was probably employed as the Indians on this continent still use him, to drag loads or poles—one end of said poles being secured to the flanks of the animal, while the other rested upon the ground, the load being placed near the middle.

The next idea was to rest the ground end of the poles on wheels, from which the transition to the two-wheeled cart and the ancient chariot was a very natural step. No doubt the ancient Egyptians and Assyrians were content, for many ages, to travel upon two wheels; yet it was an inevitable necessity—that a four-wheeled vehicle should ultimately have been suggested. In the first attempt to build such a vehicle, the second axle was no doubt fixed to the body rigidly, in the same way as the single axle had been. The inconveniences attending the working of such a rigid four-wheeler, and its obstinate tendency to move in a straight line, no doubt condemned the early wheelwright to much mortification and disgust, and his cotemporary Jehus must often have heaped anathemas on his head in the vain efforts to gracefully turn the corners of the gay avenues of his city drives. No doubt such disgust led for a time to the utter condemnation of the new-fangled vehicle and a return to the use of the more easily managed two-wheeled chariot.

But necessity was then, as now, the mother of invention, and the perch-bolt must have been soon devised, as the only means of making a four-wheeled vehicle a really practical thing on a common road. Once introduced it was sure to survive, and the carriage-maker of to-day who should propose anything for a substitute would be considered a fit candidate for an insane asylum. The railway car-builder, however, has gone back to the original construction. His practically straight road allowing the possibility of such a device. But this is only another case of history repeating itself. The modern iron road being entirely novel in its design implies a similar novelty in all its appurtenances. But the car-builder of a century hence will wonder that such a barbarous running gear could have been endured on a railway in 1875. The audible grinding of a railroad train on a short curve, and the wear and loss of power consequent upon the wheels being dragged out of their natural curve, assures us that we have not yet reached perfection in railroad gear. The perch-bolt or its equivalent must be eventually employed upon the iron as well as on the common road, and that, too, without sacrificing the steadiness of the vehicle or any other essential condition of safety and comfort.

Restoring Burnt Iron.

Many are the ideas that have been presented toward the above end, but so far, we believe, nowhere is the method carried on extensively. Many establishments that accidentally or otherwise meet with such incidental loss contrive to work off the iron so burnt by a proportionate mixture of new iron, and perhaps some use certain chemicals. But to restore burnt iron in large quantities by any systematic method we do not know to be followed. Such material we know to be a common product incident to the manufacture and working of iron; sufficiently great in quantity to justify special facilities for its redemption, but beyond the small efforts of those who meet with such loss in a comparatively limited way, no well-directed and special method toward making it a business has been done.

Quite large quantities of burnt metal are to be found at various foundries, which is not wholly "slag," as many suppose, left from the "charge" of a foundry air furnace or cupola, but in the majority of cases is burnt metal. One of our city founders pointed to a lot of several tons as "burnt iron, not slag." In our mills a common way of disposing of burnt wrought iron is to work it off in small quantities with new iron; either with scrap or by re-piling with puddle bar.—*American Manufacturer*.

THE EXCLUSION OF DAMP FROM BRICK-WORK. It is stated that one of the most effective methods of accomplishing this object is the following:

Three quarters of a pound of mottled soap are dissolved in one gallon of boiling water, and the hot solution spread steadily with a flat brush over the outer surface of the brickwork, care being taken that it does not lather; this is allowed to dry for twenty-four hours, when a solution formed of a quarter of a pound of alum dissolved in two gallons of water, is applied in a similar manner over the coating of soap. The soap and alum form an insoluble varnish, which the rain is unable to penetrate, and this cause of dampness is thus said to be effectually removed. The operation should be performed in dry, settled weather.

Another method is to use eight parts of linseed oil and one part of sulphur, heated together to 278° in an iron vessel.—*Scientific American*.

The Omnibus Not a New Invention.

The omnibus is not, as is generally supposed, a modern device. Its history is traced back to the year 1662, when Louis XIV. authorized a line of them for the special benefit of the middle classes. Seven omnibuses were started, each constructed to hold eight people. The terms of concession to the company provided that they should run at fixed hours, whether full or empty, to and from different quarters of the city, for the benefit of the infirm and those engaged in lawsuits, as well as for all who could not afford to hire a carriage. But before long the new conveyances were converted from their original purpose and became extremely fashionable. The Grand Monarque traveled in one to St. Germain, and his example being followed by the aristocracy generally, the class for whose benefit they had been introduced were completely excluded. This fashionable whim appears, however, to have lasted only a short time, followed by the failure of the company, owing to the subsequent refusal of the poorer classes to patronize the new vehicles.

Nothing more was seen of omnibuses in the French capital until 1828, when they were again introduced by a leading banker, who made a large fortune out of the speculation. It was not until two years after this date that they made their first appearance in the London streets, when two were started by an enterprising citizen, running between the Bank and the western extremity of the New-road. These ponderous vehicles carried twenty-two passengers inside. But in some respects they appear to have been superior to the modern omnibus. The first conductors were sons of gentlemen, and the periodicals of the day were provided gratis, by the proprietors, for passengers to read en route.

A THREE-WHEELED OMNIBUS.—The *Carriage Builders' Gazette* furnishes an illustrated description of quite a novelty for the road, in the shape of a three-wheeled omnibus. It is claimed that by this construction, economy in cost and draft, as well as comfort for riders is secured. Dispensing with a truck or under-carriage and one wheel, admits of economy in construction; while the triadic bearing of the wheels on the ground favors the draft. The bulk of the load is placed upon the pair of wheels, which are large and forward, and is partly suspended beneath the line of the axle. The axle of the single wheel is in the rear of the body of the vehicle. There is an entrance, placed diagonally upon each rear corner, which may be reached more readily than the rear entrance of the omnibus as commonly constructed. A stairway also leads to the roof of the vehicle from the rear. The total weight of an omnibus, as ordinarily constructed, to accommodate 28 passengers, ranges from 20 to 24 hundred-weight. A three-wheeled vehicle to accommodate the same number can be constructed to weigh from 14 to 16 hundred-weight only. The construction is very simple—the hind wheel turns freely in an upright axle-box, filled with a coil spring around the spindle. The body forward rests upon elliptic springs.

MISCELLANEOUS.

Photographic Parasols and Wearing Apparel.

We have already alluded to the use of the photographic art for the ornamentation of parasols. A late number of the *Photographic News* contains an article upon the same subject in allusion to its more extended application. The same process, says that journal, is now being further employed for printing handkerchiefs and shirts; and we were fortunate in seeing the other day some examples of what can be done in this delicate fancy printing process. Some handkerchiefs shown us had at the corner two or three butterflies most charmingly impressed, the images having evidently been taken direct from the insects themselves. Other fabrics had sketches, evidently reproductions from woodcuts and engravings, obtained and printed by a photo-mechanical process, all of them being of a most delicate nature, such as could hardly be secured from blocks or lithographic stones. Photographic portraits of various kinds were also to be seen impressed upon fabrics in the same way; but these, perhaps, can scarcely be called novelties, neither was the result so successful as in the case of the other objects we have mentioned. The prints were undoubtedly all produced by fatty ink, and, would, no doubt, be very permanently printed upon the fabric. This method is much simpler and more satisfactory than printing in the ordinary way by silversalts; for very great care has to be exercised in the latter case, and failures are far from unfrequent, the dressing in the fabric being most difficult to remove and apt to discolor the silver print. Moreover, there are the troublesome operations of salting and albumenizing, and flattening the stuff, which is by no means an easy proceeding, any more than the examination of the print in the pressure frame. This photo-mechanical printing upon fabrics is certainly an art to be cultivated.

TUNGSTEN STEEL.—A simple and certain process, it is claimed, has been perfected by Biermann, of Hanover, by which a white, exceedingly hard and brittle cast iron, containing from 5 to 40 per cent. of tungsten, can be produced, which is adapted to chilled work, and can be added to cast iron in any proportions.

A New Plan for Heating Dwellings.

Heating by hot air or steam is a wasteful use of fuel. It is poor economy to heat air or water and rely upon the cooling of those elements for our supply of warmth. We overlook the fact that heat will travel quite as well alone as in company.

Radiant heat, says the *Scientific American*, the sort required for perfect heating, obeys the same laws as light. By proper arrangement of reflectors and lenses, heat radiations can be massed into beams of parallel rays, and sent where we will, with little or no wasting. It is not until the radiations are arrested that they become manifest as heat; a fact put to practical use two thousand years ago, when Archimedes burnt the fleet off Syracuse with mirrors. A stream of heat vibrations, intense enough to fuse gold, would pass through a stream of ice without affecting it, provided the air in the tube be sufficiently pure and dry. There appears to be no good reason, therefore, why we should not warm our houses by the direct distribution of pure heat, and so gain all the benefits of an open fire in each room, with none of its disadvantages.

Briefly described, the plan would involve a central furnace; a system of tubes leading to the different rooms terminated by radiators in each room; a system of reflectors to throw the heat of the furnace into the conducting tubes in parallel rays, with other reflectors at the bends and angles of the tubes to direct the course of the radiations properly. The radiators in the rooms might be placed so that every portion would be flooded with light, yet no part be heated beyond what would be enjoyable. As nothing would enter the room from the furnace save pure heat, the effect would be like that of a room warmed by direct sunshine. The surplus heat of the furnace might be utilized in warming an abundant supply of fresh air let in from out doors; a steady circulation being kept up, from the ventilating chamber through the rooms, by the draft of the furnace. We should have then (theoretically) perfect heating combined with perfect ventilation, and at the same time the most economical combustion of our fuel.

Possibly there may be mechanical difficulties to prevent the successful carrying out of a plan of house heating of this sort. We do not anticipate any, and the advantages it promises, on the score of health, comfort and economy, certainly justify its trial by any one possessing the requisite means. The plan could be easily tested in the laboratory of any institution having a few lenses and reflectors. These suggestions might afford a good opportunity for inventors to exercise their ingenuity.

Eucalyptus Globulus.

A correspondent of the Department of Agriculture, writes as follows:

Iberia, La.: I obtained a few seeds of the *Eucalyptus Globulus*, and succeeded in raising one of those beautiful trees. It is now five feet high and seventeen months old. Other parties have had excellent success in raising these trees.

The *Boston Journal of Chemistry* for October, gives extracts from a lecture by Professor Bentley, in England, upon the properties and uses of this tree. In alluding to its power of destroying malaria, he says: "It is in this respect commonly regarded as being serviceable in two ways: First, by the far-spreading roots of this gigantic tree acting as a sponge, as it were, and thus pumping up water and draining the ground; and secondly, by emitting odorous, antiseptic emanations from its leaves." The professor does not attach much importance to the latter influence.

He cites the Cape of Good Hope, Algeria, Constantia, Cuba, and the Department of the Var, as localities where the planting of this tree has had a marked effect in the diminution of malarial disease.

CROPS AND STOCK.—A correspondent of the *Mountain Messenger* writes the following concerning the crop and stock prospects: To the people of the Valley the winter has been exceedingly mild and agreeable—no heavy winds to blow down fences or sudden cold to injure unsheltered stock. Consequently, the farmers have an abundance of feed. With a favorable spring, April will be an unusually busy month, and with as pleasant a summer as all hope for, the harvest will be one of plenty. In some sections of the valley ploughing has already commenced and is being prosecuted with quite a degree of energy. The roads are in good condition for the month of March, the frost being out and the ground settled to its original firmness. Stock looks finely, and is on the rise. It is quite probable that it will be some time before beef will be as low as it was last fall. Considerable stock has run on the plains that has not seen hay or shelter during the winter.

COMBUSTION.—The heat produced in "slaking" lime is due to the intensity of the chemical action. It is in reality combustion. The lime has a strong affinity for water, and unites with it to form a hydrate. Chemical combination is regularly attended with the evolution of heat. This is illustrated in our ordinary methods of obtaining heat by the burning of fuel, which is simply a process of oxidation. If a piece of iron is ignited in a jar of oxygen gas, it burns quickly with a great heat. If the same piece of iron is allowed to rust away in the air, it is none the less burned, though slowly; and the whole amount of heat produced is precisely the same as in its quick combustion in oxygen gas.

PATRONS OF HUSBANDRY.

STATE GRANGE HEADQUARTERS.

I. G. GARDNER, State Agent; Executive Committee Rooms; Fruit Growers' Associations, and Farmers' Mutual Life Insurance Company, all at No. 6 Leidesdorf street. W. H. BAXTER, State Secretary, at Grangers' Bank, 415 California street, S. F.

Grange Clubs for the Rural.

The Secretary (or some other Patron) is invited to act as club agent for the PACIFIC RURAL PRESS in every Grange. Circular and sample copies sent free. Five or more names will constitute a club, at the rate of \$3 a year. No new subscriptions will be taken without payment in advance. We will pay the postage after Jan. 1st, 1875. All club subscriptions in Granges should end on the last day of the month. Old subscribers may join the club by paying the Secretary up to club dates. Every Patron farmer should read a reliable agricultural paper. We need the support of all on this coast. Help the Secretary (or club agent) to make up a large list in your neighborhood. Don't delay.

Secretaries will be supplied with a printed list of subscribers for this paper upon sending a list of their offices within the range of their Grange. Also with blank reports, etc., for clubs.

Grange Directory.—A full list of officers of the State Grange, Deputies, names of Councils, Subordinate Granges, Masters and Secretaries will appear in this department on the first Saturday of each month.

The Grangers' Business Association.

The Board of Directors of the Grangers' Business Association met, pursuant to adjournment, on Tuesday, the 6th inst. Reports were received from the gentlemen who had been engaged upon the canvass to obtain subscriptions of stock. It appeared that some of the routes had been arranged in such a manner that the meetings could not be held precisely as arranged: some of the appointments had to be changed, and a few could not be kept at all; but as a general rule the canvass had been carried out as proposed. The general result, as reported by the canvassers, was highly satisfactory to the Board, it appearing that a general interest and confidence is felt by the Patrons in the corporation.

Subscriptions are reported to fully the amount required by law, viz: \$250,000; but as the subscription papers are coming in constantly the Secretary cannot give the precise amount on the books, no computations having been made after ascertaining that the one-fourth required under Section 331 of the Civil Code had been subscribed; between 1,300 and 1,500 persons have subscribed to the stock, and the business will start with that number of consignors of produce.

Vice-President Brooke was elected business manager and will at once enter upon the discharge of his duties.

The amount of the bonds of President, Vice-President, Secretary and Treasurer were respectively fixed at \$200,000 each; a committee was appointed to select suitable places of business.

CHEERFUL AND PROMISING.—We have not seen such cheerful and joyous faces among the Grangers resident here or visiting the city for many months as during the past week. The cheerfulness with which the Granges and individual members of the Order, have come up to the support of the Bank and Business Association during the past month by subscribing for stock in those institutions has been really refreshing, and speaks volumes for the earnestness and reality connected with the business course of our Order in this State. A million of dollars added to the subscribed capital of the Grangers' Bank in about two weeks, and some five or six thousand additional shares taken in the Business Association means business.

HOME AGAIN.—We have had the pleasure, this week, of meeting once more, at the Grange headquarters, in this city, the genial face of Brother Hamilton, Master of the State Grange. Brother H. has recently returned from the meeting of the National Grange at Charleston, and this is his first visit to the city.

The meeting of the Executive Committee, and that of the Trustees of the Grangers' Business Association, has also called hither a large number of Deputies and other Masters of Subordinate Granges, by whose presence the headquarters on Leidesdorf street has presented quite a lively appearance during the past week.

THE EXECUTIVE COMMITTEE was in session Tuesday, Wednesday and Thursday of the past week and had not adjourned up to the time of our going to press. Business of importance was before the Committee, but up to the time of writing nothing had transpired which was deemed proper for publication.

GRANGERS' BANK.—Additional capital stock to the amount of over \$1,000,000, was subscribed for this bank during the month of March, thus improving its already good standing.

From Our State Lecturer.

EDITORS PRESS:—I hope my letter giving you an outline of the work of the late session of the National Grange has reached you safely. The RURAL continues to come. I am glad to see from the last number that so much is being accomplished toward getting our very important "Business Association" in working trim. Surely no more important step than this has been taken yet to strengthen the business arm of the Order in California. I see also from the report of the last meetings of the Los Angeles District Council, that our brotherhood there are continuing active in their zeal and work, which have made them justly noted among their fellow Patrons along the Pacific.

I regret exceedingly that the Executive Committee were prevented, by an unexpected press of business, from carrying out their intention to visit Los Angeles district. But I trust our brotherhood there will understand about the matter and will know that our State Grange and Executive Committee have their interests at heart and wish to provide for them as much as any of our members. You know, by invitation of the Florida Fruit Growers' Association, many members of the National Grange visited Florida after the session. Sharing that privilege with them afforded me an opportunity to see and study, to some extent, the much praised climate and semi-tropical fruits of that "Land of Flowers." This I have been anxious to do in order to make something like an accurate comparison with the corresponding advantages of Southern California. You know how great has been the rush to Florida for several years past, each winter, of our Northern friends, both invalids and tourists. At least 25,000 are said to have visited that State last winter. While I was in Jacksonville, it was estimated that there were 6,000 tourists in the city.

What I saw and experienced at Jacksonville, Palatka, St. Augustine and along the St. John's river, enabled me to compare with considerable satisfaction their climate and products and ours in Southern California.

At Jacksonville the average temperature for the twelve months, from November 1st, 1873 to the same date in 1874 was 65 degrees.

The maximum was in August, 100°; the minimum in November, 30°. Annual rainfall 51 inches. The four rainiest months were February, July, August, and September; in each of which they had about seven inches. Number of cloudy days 116 in the year, or about one-third of the time.

You see then that though the temperature does not vary greatly, the climate is very much dumber than with us in California. This makes a vast difference in the effects on man and beast produced by the two climates.

Though the Florida atmosphere appears beautifully clear, and the vision seems to penetrate very far, as in our climate and in Italy, still the excessive moisture makes the climate, even at the temperature of 86°, which I felt one day in Jacksonville, very prostrating. You at once suffer from lassitude. Not so with us, you know, in our warmest weather. Consequently from what I have seen, and felt, and learned, I think it certain that our California climate is a very much better in the winter and infinitely better throughout the year for those in sound health, or sufferers from weak lungs, or other complaints.

Indeed, while invalids in the States where severe winters prevail are, doubtless, very fortunate to have so near them so fine a climate as Florida affords during their cold weather, I am more convinced than ever, since I have examined both for myself, that the climate of Southern California cannot be surpassed by any portion of the world by the benefits it affords to invalids.

Again, as regards oranges, lemons, and limes, Florida certainly cannot easily be excelled in size or flavor. The oranges, especially, are sweet, rich, and of exquisite flavor. I measured a lemon fresh from a tree, on Col. Dancy's place, near Palatka. It was 5½ inches long and 1½ in circumference. The largest orange I could find in all my trip measured 13 inches in circumference. It was huge, and I began to think California could not beat the size of these big lemons and oranges; but I have since seen, in the RURAL PRESS, mention of the oranges gathered in San Buenaventura county, which were more than 14 inches in circumference; so California is still ahead in size of oranges. About lemons, our friends can decide from the measurement I give above. I question whether the oranges, lemons, and limes of our State can surpass those of Florida in richness of flavor. They probably equal them in this respect, and are superior in size. Florida are also raising bananas quite successfully.

One great advantage which California has, beside its dry climate, is unquestionably its soil. In the part of Florida I visited, you find the orange groves only immediately on the rivers or near the sea. In Southern California all level land, on which you can get the water necessary to irrigate, produces the semi-tropical fruits well. As regards texture and fertility, I think our California soil is vastly superior. The Florida soil is the whitest, poorest, loosest and I ever saw. The orchards have to be fertilized every year with large amounts of manure, collected in adjacent forests. In orange culture in California, I believe no fertilizing

has yet been found necessary. I would rather own one acre of land in California than five of what I saw in Florida.

Hoping these comparisons, which I have tried to make accurate, by careful observing and recording, may be of some interest to those inquiring into such differences, I shall close this letter by a few remarks on another subject.

I feel some interest in a resolution passed by the Los Angeles Council, and published in the RURAL PRESS. It is the resolution which speaks of "our State Lecturer" as making a "change" in the Declaration of Purposes of the National Grange, and expressing their opposition to "exorbitant per cent. profits of producers," as well as "exorbitant per cent. profits in trade." Now, I agree with our Los Angeles brothers, exactly, in their belief that exorbitant profits of producers are just as wrong, in principle, as exorbitant profits in any trade. But they will permit me to call their attention to one or two points: 1. There was no "change" made in our Declaration of Purposes. It was only a correction of a printer's error, which had crept into some inaccurate copies of the Declaration of Purposes, as can be seen from any official copy. 2. Let all interested take notice that the expression "exorbitant per cent. profits in trade" includes all exorbitant profits in exchanging any kinds of products, and hence, so includes producers as to make it unnecessary to mention them expressly, as they are but a part of those engaged in trade. It was for this reason that the more general expression was inserted in our "Declaration." The "profits of producers" are mentioned in the next sentence. 3. I trust our fellow Patrons will consider it probable that their brother, to whose lot it has fallen to be their "State Lecturer" for a brief period, and whose happy and unexpected privilege it was to draft the Declaration of Purposes of the National Grange, should feel some anxiety that such Declaration should remain in its purity, and be printed correctly, and be understood correctly, by our numerous and noble brotherhood. I hope they will pardon him if he seems at any time to exercise too careful a guardianship over the quotation or construction of its words.

May the zeal of none of us for the good of our Order ever grow cold.

Yours fraternally,

J. W. A. WRIGHT.

Green Springs, Ala., March 23, 1875.

Castroville Grange.

EDITORS PRESS:—Last Saturday (March 27th), the Grangers of this place installed their officers. The installation was to take place at 10 A. M., but for some reason it was delayed half an hour. The installment of officers was made by J. R. Hebron, who belongs to the Salinas Grange, (all the members of the Salinas Grange were invited and several of them were present.) It was a beautiful day, and the hall was tastefully decorated with flowers, grains, and evergreens. The exercises were opened with prayer by the chaplain; following this, was a song by the Grange, entitled, "The Yellow Corn;" after which, the officers were duly installed; then followed another song by the Grange, entitled, "The Plow, Spade and Hoe." A song, entitled, "Follow up the Plow," was then sung by a few young ladies and gentlemen, who had kindly volunteered. The hall was crowded. The exercises were concluded about half-past 12 o'clock, when Mr. F. Brown kindly invited those present to form into a procession and march to the American hotel, where they would find a dinner, prepared by the Grangers, of which they could partake. The procession was led by the Castroville Quadrille Band; next came the Castroville Grangers, followed by those from the Salinas Grange; the rear was brought up by those who were not fortunate enough to be Grangers.

When the procession reached the hotel the band passed to the right, the Castroville Grange then separated, the ladies stepped to the right, and the gentlemen to the left, and allowed the rest of the procession to pass through into the dining room. The table was bountifully supplied with "good things," while in the center of the table was a pyramid of vegetables and on either side were innumerable bouquets. After dinner the people were invited to adjourn to Smith's hall, where they could enjoy the pleasures of the merry dance. In the evening the Grangers gave a supper and dance. All seemed to enjoy themselves, and over thirty couples sat down to supper. Well may the Grangers be pleased with their day's work. B. TRUCE.

Castroville, April 1, 1875.

Election of Officers.

Santa Maria Grange, No. 52, of Santa Barbara, Cal., have elected the following officers: S. G. Lockwood, M.; Wm. T. Morris, O.; H. C. Sibley, L.; John Tunnell, S.; John Hopper, A. S.; Mrs. M. Thornburg, T.; John Thornburg, C.; S. A. Fesler, G. K.; J. J. Nicholson, Secretary; Mrs. Sarah Hostetter, Ceres; Mrs. A. Morris, Pomona; Mrs. J. Cook, Flora; Mrs. E. S. Hopper, L. A. S.; I. Miller, M. L. Miller, J. Thornburg, R. D. Cook and M. P. Nicholson, Trustees.

"SONG FOR THE GRANGE."—The lines sent us under the above title contain pure and manly sentiments, but are hardly up to the literary standard of our paper.

From the Granges.

Cosumnes Grange, No. 176.

EDITORS PRESS:—Our Grange was organized on the 13th day of April last, with fourteen charter members. Within a very short time after our organization we spent over a hundred dollars in fixing up a school house for a hall. Nearly all of our members were taking some paper, and when I proposed that we take the RURAL PRESS, the answer invariably was, "Wait till we get out of debt." On last Saturday "Mr. Cash" owed us \$9.25, and immediately upon motion the Grange voted to have me send for two copies of the PRESS.

We now number 40 members, and outsiders are beginning to believe we are somebody. I think you would aid our cause if you would urge every Grange to turn out and have a May-day picnic. By getting together on an occasion of that kind, we could not only "have a good time generally," but could convince outsiders that we mean "biz."

Winter sown grain does not look as well as it ought to, on account of the dry weather and north winds. Summer fallowed ground is looking finely, and bids fair to yield well. The spring has been very favorable for sheep men. The increase in lambs will be greater than ever before known in this county.

J. H. ATKINS, Sec'y Cosumnes Grange.
Elk Grove March 28, 1875.

Bernardo Grange, No. 239, San Diego County.

EDITORS PRESS:—Our Grange is getting along finely. We had a very live meeting March 20th. I tell you it is a good thing to have one or two live members in the Grange. Our Worthy Overseer, Brother Sherman, is one of our best working members. He has always something new for us out of the PRESS. If an argument starts up about anything, the first thing you see is our Worthy Overseer hauling out his scraps which he cuts out of the PRESS, and that settles the argument at once.

We have thirty members, and though we live a great distance apart, we have a general attendance, even from the most distant ones. We contemplate giving a grand picnic on May-day and a ball in the evening at our new hall, which will be completed on or before that time.

Our Worthy Master, Z. Sikes, deserves great credit for the energy he has displayed in advancing the interests of the Grange in this section.

THOMAS DUNCAN, Sec'y.
Bernardo, San Diego Co., March 28th, 1875.

Berryessa Grange.

EDITORS PRESS:—Our little Grange here had a very pleasant visit from Brothers Cressey and Ward last Thursday, who addressed them in the interest of the Grangers' Business Association. A liberal subscription was obtained to the capital stock of the association. We appreciated the good, practical hints of Brother Cressey, who is a live man in the Order.

POMONA.

Berryessa, March 28th, 1875.

Petaluma Grange.

EDITORS PRESS:—Our Grange had a special meeting on the 3d inst., at which we discussed several local questions which were very interesting to us. I send you a list of subscriptions to the Grangers' Business Association, amounting to 190 shares; there may be a few more shares taken, perhaps; enough to make 200 in all. The quarterly reports, dues, etc., are all on the way to your headquarters. F. PARKER, Sec'y.
Petaluma, April 5th, 1875.

The Grange Means Peace.

There are many professional and trading men, and even some of our own brethren, who seem to think that the mission of the Grange is to fight everybody and everybody. Never was there a greater mistake. If any body of men on earth mean "peace on earth and good will to men," it is the Grangers. We desire the prosperity of all good men. We have no antagonism to any honest calling, trade or profession. We want all to flourish and prosper, but we do not want them to be our masters. While other trades and professions are prospering, we want the farmers to prosper also. We want the "man who holds the bread" to reap the fruits of his own labors and not to have them go mainly into the pockets of the drone of society.

We want agriculture to flourish and the tillers of the soil to be elevated financially, socially and educationally. And why should we not try to build up ourselves, if we do not aim to pull down anybody else who ought to prosper. There is no agrarianism in the Grange. Every Patron wants all the property he can get honestly by his toil.

We do not wish to injure the lawyers, though one of our cardinal doctrines takes away a great source of their profit.

One of our proudest achievements is to stop strife and lawsuits among farmers. Where Grangers flourish lawsuits diminish and the little breaches and broils that arise between brethren are healed without litigation.—*Southern Granger.*

THE writer was in error, recently, in saying that correspondence for the Immigration Aid Department of the State Grange should be addressed to W. H. Baxter, Sec'y of the State Grange.

Manual of Jurisprudence and Co-operation of the Patrons of Husbandry.

This book is now in press at the well known publishing house of Mills & Co., of Des Moines, Iowa, and will be issued about the first of April, proximo.

The very large sales and the hearty and universal commendation of the little work, *THE PATRON'S MONITOR*, published some months since by Master Smedley, and the very numerous and oft recurring questions of law and usage, which were pouring in upon him by every mail, and not alone from this State, but from every State in the Union, suggested to him the want in the Order of a more complete treatise upon the several subjects therein briefly touched on, and of a more comprehensive discussion of all the many questions connected with the jurisprudence of our growing Order. The burdensome correspondence which was entailed on him by reason of his official position, and the high esteem in which his extensive knowledge of all these matters and his good judgment concerning them were held by members of the Order everywhere, literally forced him to prepare this book as a measure of relief, and his long experience admirably qualified him to do it.

At the same time, our business arm has been rapidly reaching out and our hand taking hold of many and new enterprises. A discussion of principles involved, and a plain statement of methods to be employed, seemed indispensable. Master Smedley's reading and his experience well fitted him for this work, also.

In an Order which has already assumed giant proportions, and has now more than a million active members, the proper transaction of its own immense business seemed to demand the facilities afforded by the use of well studied and conveniently arranged blank forms, and this want, too, Master Smedley has tried to supply in his copious appendix.

The organization of Pomona Granges, just now authorized by the National Grange, and for which, a yet, few State Granges have made specific arrangements, calls for the preparation of blank forms especially adapted for their use and for instructions as to their design, province and powers. Particularly desirable is it to make plain their relations to the State and Subordinate Granges respectively, and to the business interests of the Order. Master Smedley has carefully considered all these matters, has discussed them with the other Patrons of experience who might throw light upon the questions involved, and has tried to meet these pressing wants.

Of course the opinions expressed in this book are not to be regarded as law, except in Iowa, but they will be most suggestive and instructive everywhere.

The book is the only one of its kind, and will be not only most useful, but quite indispensable to the Grange officer, and it will be most instructive to every private member as well. It contains nothing of the unwritten work, however, nothing but what may be left upon the table or placed upon the shelves of any gentleman's library for all the world to read.

The manual will contain from 200 to 240 pages. It will be printed on fine, heavy paper, and be neatly and substantially bound in cloth. The price is fixed at \$1.25 per single copy, postage paid, or \$1.00 per copy when sent by freight or express, in packages of five or more. Prepaid orders will be booked and filed in rotation as received. Geo. William Jones, Publisher, Des Moines, Iowa. Address DEWEY & CO., PACIFIC RURAL PRESS OFFICE, San Francisco.

HORTICULTURE.

Tropical Fruits at the East.

As this class of fruits embraces many varieties grown in California, it will be well for our readers to keep informed of the condition of the tropical fruit market at the East. In this connection the following extracts from the review of this department of trade by J. H. Bostwick, U. S. Inspector of Customs, N. Y., will be of value:

Box Fruit.

The importation of box fruit at the port of New York from the Mediterranean ports during the year 1874 comprised 349,701 boxes and cases of oranges, and 338,396 boxes and cases of lemons. The total number of oranges was 131,558,970, of which 42,742,503 perished on the voyage—a loss of 33 per cent. The total number of lemons was 102,522,500, of which 14,814,805 perished on the voyage, a loss of 14 per cent. Total number of oranges and lemons, 145,373,775.

The above shows a total of 388,097 boxes and cases of oranges and lemons imported during the past year, as against 507,261 boxes and cases imported 1873, and an excess of 180,836 over the imports of 1872.

Grapes.

There were 31,766 packages of grapes imported the past year, consisting of barrels, half-barrels, kegs, boxes and matted pots. The precise amount of loss has not been definitely ascertained, but it is believed will average 60 per cent.

Mandarins.

There were 408 boxes mandarins imported, and comprised 16,320, of which the loss was 60 per cent.

Cantalope Melons.

There were 3,660 cantalope melons imported from Malaga, on which there was a loss of 56 per cent.

Importation of Mediterranean Fruit at other Ports in the U. S. in 1874.

At Philadelphia, 176,851 boxes and cases of oranges, and of lemons, 71,834.

At Boston, 100,868 boxes and cases of oranges, and of lemons, 45,541.

At Baltimore, 78,897 boxes and cases of oranges, and of lemons, 26,823.

At New Orleans, 45,243 boxes and cases of oranges, and of lemons, 36,707. The percentage of loss on the above is unknown.

The total number of boxes and cases of oranges and lemons imported into the United States in 1874 was over 1,270,861, as against 816,922 in 1873; showing an excess of 453,939 boxes and cases over the imports of 1873.

The importers of Mediterranean fruit were more successful in their business ventures the past year than they had been for several preceding years, and they have realized a reasonable remuneration for the large amount of capital invested in the trade. This, however, cannot be said of the large dealers in box fruit generally, some of whom have bought largely of fruit to arrive, and lost heavily in their investment of capital.

West India Oranges.

The importation of oranges from the West Indies the past year consisted of 18 cargoes by sailing vessels against 37 cargoes in 1873, showing a diminution of 19 cargoes.

There were also imported per steamers 37,974 barrels of oranges as against 30,261 in 1873, showing an increase of 7,713 barrels over the imports of 1873 by steamers.

Several parts of cargoes of oranges were also imported in sailing vessels.

The above shows a grand total of 21,543,130 oranges, of which 9,779,355 perished on the voyage, being a loss of 45 per cent.

Notwithstanding the diminution of 19 cargoes of oranges from the importation of 1873, the above shows an increase of 593,776 oranges over the total number imported in 1873.

It is claimed by many persons that the quality of the oranges from some of the West India islands the last year was not equal to that of some of the preceding years. If this be so it is not improbable that such depreciation in the quality of the fruit was the result of the terrible tornado which swept over some of the West India Islands November 1st, 1873, carrying destruction to everything in its course.

The island of Jamaica did not escape the effects of that tornado, which nearly or quite destroyed the crop of bananas then growing, besides causing great damage to the orange crop and that of other fruit.

Seldom or never has the price for West India oranges been so low or the demand so light as during the present winter, consequently there has been and still is great depression in this branch of the fruit trade, involving much loss to the importers.

AGRICULTURAL NOTES.

CALAVERAS.

JUST THE THING.—The Calaveras Chronicle of 3d inst. says: Sunday last we were treated—not to a fine Havana—but to a gentle shower of rain, just the thing that was needed to insure good crops throughout the country. Old Jupiter Pluvius has acted with an impartiality not characteristic in bestowing his blessings throughout the State, for Calaveras has always held the highest place in the old gentleman's estimation.

CONTRA COSTA.

INSPIRE A HOPE.—The Contra Costa Gazette of the 3d inst. says: The showers within the past ten or twelve days have greatly refreshed and improved the face of nature, and have been of the greatest benefit to the growing grass and grain—in many cases saving both where they would otherwise have soon died out. These blessed refreshments of rain have not "assured the crops," as it is the habit of the telegraphic dispatchers and newspapers to announce after each little sprinkle, but they do inspire a hope, since they have broken the spell that so long ruled the elements and brought us only desiccating winds, that our spring-time will not be without further refreshment of like kind, and even in fullness of measure.

CATERPILLARS.—The same paper has this to say of the caterpillar plague: The fruit growers are likely to be more troubled with caterpillars this season than ever before, and if they are not promptly destroyed many of the trees will be stripped by their ravages. Until last year these pests have not been numerous or very troublesome in this section, but this season the fruit trees and evergreen oaks are greatly infested. The larvae began to hatch out some three or four weeks ago, and the branches of many of these trees are now plentifully cumbered with web nests, which are readily destroyed by the application of a lighted torch.

EL DORADO.

DAMAGE BY FROST.—A correspondent of the Placerville Democrat writes, under date of March 29th, as follows: Since my last communication the farmers of this neighborhood have had "a spoonful of sweet and a spoonful of sour." The severe frosts of the nights of the 14th and 15th did great damage to the peach crops. The rain of the 24th was a God-send. The rain of last Sunday will almost insure a fair crop of early sown grain. The heavy frost which followed was very damaging. The peach crop is almost entirely destroyed.

LAKE.

COPIOUS RAIN.—From the Lake Co. Bee, 3d inst.: Rain fell here copiously Saturday night and continued until Monday morning, gladdening the farmers' hearts, as sufficient rain has fallen to meet the present want of agriculture.

MENDOCINO.

HEAVY FROSTS.—The Ukiah Dispatch of April 3d says: On Tuesday and Wednesday mornings we had heavy frosts. There is much uneasiness as to the safety of the fruit. On Wednesday at 10 o'clock A. M., we examined peach, apple and plum trees, and at that time no serious damage had been done by the frost.

MERCED.

FAVORABLE INDICATIONS.—The Merced Express of the 3d inst. says: Last Sunday evening about 3 o'clock, rain commenced to fall in light showers, at intervals, and continued to fall up to 10 o'clock of the same evening. From 8 to 10 o'clock it came down in earnest, saturating the earth thoroughly. Farmers have no reason to complain, as present indications are certainly very favorable. It is safe to say that an abundant yield of grain is assured to a certainty; in fact, in our judgment, more grain will be harvested in Merced county this year, than any previous year. The rainfall, it is true, has not been great, but it has come just at the right time, and in sufficient quantities to suit the farmers, and answer all purposes. The early sown grain has not been benefited to so great an extent, as much of it was so far advanced there is danger of too great growth, and of lodging. The rain was general throughout the State, and the news from all quarters is that with favorable weather from this time forward a fair crop is assured.

TREE CULTURE.—From the San Joaquin Valley Argus of the 3d inst.: We observe that the people of this section of the valley have become very much in the spirit of raising ornamental, shade, fruit and forest trees, and we believe that a greater number have been planted out in Merced county this spring, than in any former year, and we hope to see those who have thus planted, sufficiently successful to increase interest in tree culture in future years. There is nothing which adds more to the beauty and comfort of a farm or homestead than for the lawns and roadsides to be well set with handsomely trimmed and cultivated trees in full foliage. Of course care should be taken in selecting fruit bearing trees and such as are valuable for timber and fuel. Trees make rapid growth in this valley, and require irrigation only for one or two years, after they are planted out.

NAPA.

THE FROST.—The Register of the 3d inst. says: We find it difficult as yet to determine the extent of the damage done by the late frosts. Much depends upon location. On some places the fruit crop is all killed; on others not so badly hurt, or perhaps not at all. The frost goes in streaks, and it does not appear to strike every time alike, either. At the great frost of two years ago, for instance, it hurt most those vineyards in locations usually considered most exempt from its influence. There is no damage as yet, we believe, to vines, because they are not out enough to be hurt, and we trust they may escape injury altogether. The fruit, however, has suffered, but to what extent it will probably take some time to determine.

SAN BENITO.

RESTORED CONFIDENCE.—The Hollister Advance of April 3d remarks: The crop prospect is quite encouraging, so says every farmer in the country. The rain of Sunday has made the grain crop safe, and the croaking common to us all has been banished. Nearly an inch of rain fell on many parts of the valley, and with a few light spring showers excellent crops and a prosperous harvest are assured. We are pleased to observe that confidence in the good prospect is generally restored.

SAN JOAQUIN.

VALUE OF FOOTHILL LANDS.—A correspondent of the Stockton Herald, writing from Lockford, San Joaquin county, March 25th says: The agricultural development of this section of country is rapidly increasing. Many claims previously located only for sheep ranges are being tilled this year with good prospects of a fair crop. Real estate has now increased in value from four to tenfold within the past decade. This circumstance has driven settlers to seize all vacant lands lying east of the village to the mineral lands of the foothill regions. Eight years ago nine-tenths of this land was not considered valuable enough to justify one's paying taxes on it. Now, any quarter section of it will bring from \$500 to \$4,000.

SAN MATEO.

DAM WORK.—From the San Mateo Times, April 3d: For the past week there have been at work some fifty teams and one hundred men in building the new addition to the San Andreas dam. It will be remembered that last year the dam was to have been raised twenty feet; the starting in of the rainy season prevented its completion. The present work is being carried on by the company itself, under the direction of the resident engineer, Mr. W. H. Lawrence, and will take four months to complete it.

SONOMA.

THE PROSPECT.—The Petaluma Argus of 3d inst. has the following items: Wm. P. Hall, of Bloomfield, has 200 acres of grain, and will plant 50 acres of potatoes. The prospects for a large yield were never better at the beginning of April.

Haying ordinarily commences in this vicinity about the 12th of May. It is estimated by some of our farmers that it will begin this season two or three weeks earlier than usual.

Thomas Hopper informs us that he has never seen crops in better condition at this time of the year. He has several hundred acres of grain about midway between this city and Santa Rosa.

George Campbell, whose farm is about one mile and a half from Petaluma on the Donahue road, and who has been a resident of this section for the past eighteen years, says the crops are more promising than he has ever known them at this season of the year.

L. N. Harmon, one of the most extensive grape-producers in this vicinity, informs us that the frosts of last week, which by many were considered quite heavy, did not injure his vines in the least. So far as present indications are a guide, the grape crop this year will be at least as large as usual.

CROP NOTES.—From the Sonoma Democrat, under date of April 23: Steve Story reports the crops looking better than ever before in Bennett valley. R. H. Weatherington, of the Rincon, reports that the soil is in excellent condition, and the ground well seeded, there being less loss from drowning out of the seed than usual. The hay crop bids fair to be very fine.

SUTTER.

EVERYBODY ENCOURAGED.—This is what the Sutter Banner of the 3d inst. says: Since our last we have been blessed with a refreshing rain in this section. It began on Sunday morning last about 4 A. M., and continued through the day with slight interruption. In the afternoon the clearing-up shower was very heavy, and the encrusted earth drank it all in, rehabilitating the parched places, and causing the farmer and granger to feel glad within themselves at the prospect of one of the most favorable seasons we have had for years. This rain coming in good season has given encouragement to everybody.

Agricultural Items.

FARMERS in Grass Valley have a new kind of grain they call "wild-goose rye." The berry is large and plump, and a sample of it, exhibited at the Humboldt county fair, last fall, attracted considerable attention. It is said that the original seed was taken from the crop of a wild goose a few years ago, hence the name.

Much material wealth could be added to the State if settlers upon Government lands would avail themselves of that provision of the land laws which affords them free, a quarter section of 160 acres upon planting one-fourth with trees, not more than twelve feet apart.

THE Tulare Times says that the People's ditch is now complete. It was commenced in January, 1873, by ten men. Since then a large number of stockholders have joined, and forty miles of ditch have been constructed, at a cost of \$50,000.

From the present outlook the Hollister Enterprise thinks it safe to predict that San Benito county will fill more sacks this year than ever before.

DOCTOR GLENN, a Colusa county farmer, calculates gathering 1,000,000 bushels of wheat from 35,000 acres this season.

ACCORDING to the Visalia Delta of the 3d inst., 300 bales of the present wool crop have already reached that place.

HOR culture is exciting attention in the Sacramento valley.

PATENTS & INVENTIONS.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

[FROM OFFICIAL REPORTS FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.]

By Special Dispatch, Dated Washington, D. C., April 6, 1875.

FOR WEEK ENDING MARCH 23.

TOOL FOR TURNING METAL.—Chas. Cummings, Virginia City, Nev.

BED BUG TRAP.—John L. Hawkins, San Quentin, Cal.

WAGON-BRAKE BLOCK.—William Hendrick, Modesto, Cal.

WATER WHEEL AND HYDRAULIC GOVERNOR.—Frederick G. Hesse, Oakland, Cal.

HYDRAULIC ENGINE.—William L. Smith, S. F., Cal.

VACUUM RELIEF VALVE FOR WATER PIPES.—Philip Hinkle, S. F., Cal.

GRAIN SEPARATOR.—Michael O'Brien, S. F., Cal.

AMALGAMATOR.—John Rutherford, S. F., Cal.

FRUIT JAR.—Pierre F. Daroche, S. F., Cal.

DEMIOHON CASE.—Carlton Newman, S. F., Cal.

RE-ISSUE.

BAND SAWING MACHINE.—Olpha Bouney, S. F., Cal.

—The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue.

NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & CO., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with perfect security and in the shortest possible time.

WOODWARD'S GARDENS embraces an Aquarium, Museum, Art Gallery, Conservatories, Tropical Houses, Menagerie, Seal Ponds and Skating Rink.



Beyond the Stars—What?

'Tis easy to trace the soul to the hour
That deprives the form of its breath;
But who shall follow the spirit's flight,
When it seeks the portal of death?
Who rend the veil that hides from our view
The future, beyond the bright stars?
Who follow the spirit's upward flight,
When it breaks through our earthly bars?

What—ah! what is that future state?
And where, oh! where is the goal
Which Christians say is the resting place,
And home of the deathless soul?
Is it beyond the dark blue sky—
Beyond where the stars now shine;
Where the angels sing their song of praise
To the spirit of God divine?

Can life be the end of all our hopes?
Is the struggle with death all o'er?
Or is there a life beyond the tomb,
Where the soul lives evermore?
Does the soul exist when life has flown,
Or sink, like the corse, into night?
Let us rather believe the brilliant mind
Still continues its upward flight.

Let us think that the soul can never die—
That its mission will never end;
That there is a land beyond the sky,
Where friend will still meet friend;
That, freed from the turmoil and ills of life—
From its troubles, wounds and scars,
The soul will worship the God of Light,
In his mansions "beyond the stars!"

—Call.

Farm House Chat.

[For the Press, by MARY MOUNTAIN.]

This time it was ironing day, and I dropped the flat-iron awhile to search for Nord, Butte Co., and try to make out how far it is from Chico.

And so I found a new Chico—new, at least, to me—right there in Butte Co. If any one had asked the solemn question, "Where is Chico?" I should have answered promptly, "Away out somewhere in the cold, on the line of the Central Pacific." Looking along that line I find Elko, Cisco, and a host of new names that are likely to puzzle me yet, and mix themselves with other names, new and old. But Chico and Nord will never play tricks with memory again, since I have "located" them with pleasant associations of "sister C. A. C." And I hope her Monday morning inspirations will continue their gentle urgency and brighten our Grange Department with that "vital spark," or sparkle, that hath its own pleasant duty to perform among human hearts.

As for under-garments "with a patent and an emporium," they might, indeed, and perhaps already do, furnish a good business and a "mission" for co-operating women. Having my own mission so well defined at home, I can, perhaps, do no better than give the result of my own study to those mothers who are just beginning the problem of how to dress the little girls with most comfort and convenience; and when the best way for girls is found, perhaps the mothers will, as I did, adapt similar improvements to grown-up garments.

At the very first I gave up the notion that there must be a chemise made and worn for its own sake alone. That garment could be so fitted as to support the drawers and stockings; and by making it entirely open, either at the front or back, it could be removed at night and put on in the morning without the trouble of detaching the drawers. This plan seemed much better than to cut waist and drawers all in one, as I have seen recommended; and as I actually did cut them once in flannel for my own use, but —. Shall I be brave and tell why I never did so any more? In good old Down East it may be just the thing to have the nether garment straight in its integrity from neck to heels; but until the California flea is perfectly civilized, and taught exactly "where to roam," I shall prefer buttons at the waist line, and two garments instead of one.

The first in order I cut as a straight slip, loose enough to hang easily from the shoulder to below the hips, and for young children open at the back; although they will sooner learn to dress themselves if it is made open in front. There will be but few gathers at the top, and when made of Canton flannel, none at all. Fit plain and close; but if of muslin, let there be some fullness put into a straight band, front and back, and tuck, rather short, bands over the shoulders. The band, as a whole, must not be too long or too low, but so fitted as to hold the garment easily and directly upon the shoulders. The sleeve may be put in plain or puffed, and all may be neatly trimmed, if desirable. From the sleeve-seam under the arm a strip of cloth is stitched down each side, making a trousse support for buttons, that are to be placed two or three on each side—upper ones for drawers, lower ones for stocking-suspenders. One of the buttons that close the garment in front may also be used to support the drawers; and if a protector is needed, it may be securely buttoned at front and back. If a button is to be sewed upon the body of the garment, place a folded strip of cloth underneath, thus making several thicknesses of cloth instead of one for the stitches.

If you are dressing the child for winter, the next garment should be a flannel petticoat with sleeves, the body fitted sack fashion, or in the gored Gabrielle style.

The next is the underwaist, nicely fitting, and with a belt well stitched on, upon which are large strong buttons for the support of petticoat and dress skirt.

For a mature form this underwaist may be so fitted as to give the support of a corset without the corset stiffness; and unless the figure has already been spoiled by corset, not so much as a whalebone will be needed.

When a girl is growing fast the mother is almost sure to worry about her being "crooked," and hurry her into corsets as the only way to make her "grow straight." If she will, instead, keep her clothing loose, give her plenty of exercise in the open air, and pure air in her bedroom, plenty of excellent nourishing food, and teach her how to help cook the food—my word for it, the girl will grow up as handsome and straight as the most exacting mother could desire.

But a word more about the underwaist. Faith Rochester says: "fit the fronts with a very wide belt, high enough to support the breast, and having the fullness above gathered into it." By following her idea, I have learned to fit them nicely without the trouble of putting in so wide a belt. This is done by cutting half way across the fronts at the point where extra fullness is needed, shorten back the lower pieces so that they will button closely to the body, then gather the fullness in a strong seam, and make one small dart sloping toward the arm, starting from that part of the seam nearest the arm. Let me make one plea now for the little girls, who should be as warmly dressed for winter as their brothers, and have an equal chance to run, and romp, and play in the dirt. Nearly always the little boy goes forth strong and happy in thick woollen pants nicely lined, and other clothing adapted to his business. The little sister steals timidly out in thin cotton drawers, and the mother screaming after her—"Come back! come back! you'll catch your death of cold!" How unfair it all is, to the child and the future woman.

My own little girl had drawers of warm ladies' cloth, or thick flannel; the warmest of knit, woollen stockings, and all other garments planned for healthy, out-door, child-life.

Three other women followed my example, and we were not at all crushed by the critical glances of the mothers who kept their little ones in pretty muslin drawers, and plenty of scoldings when they run out and caught cold.

Now let no one imagine that I insist upon having the best plan that can be devised for underclothing. But let every mother be fully persuaded in her own mind that she can and will soon have the best; and that her girls shall grow up in such sensible comfort of garments as to be in no danger of ever yielding blindly to the mere follies of fashion.

The conservatism of M. E. T. is timely, and I heartily agree with her in everything, except doing the men all up in black and the women all in brown. My first decided ambition was to grow up a tall woman and have a silk gown striped with all the colors of the rainbow.

Life has been a failure in that line; but though I have never yet dazzled the world with my rainbow gown, I have always a weakness for gay colors, for sunshine and brightness all through the house, and through the heart. And I do like to see pretty women wearing pretty clothes, and not dragging them through the dirt. Is that too radical for M. E. T.'s conservatism?

Then, I will make a grand concession. I would even rather see the pretty woman drag the pretty clothes, than make herself into a snuff-colored mummy, or an animated bale of brown water-proof. And yet—she need not drag them.

THE BEAUTY OF JEWISH LADIES.—It is related that Chateaubriand, on returning from his Eastern travels, was asked if he could assign a reason why the women of the Jewish race were so much handsomer than the men, when he gave the following: "Jewess," he said, "have escaped the curse which alighted upon their husbands, fathers, and sons. Not a Jewess was to be seen among the crowd of priests and rabble who insulted the Son of God, scourged Him, crowned Him with thorns, and subjected Him to infamy and the agony of the cross. The women of Judea believed in the Saviour, and assisted and soothed him under affliction. A woman of Bethany poured on His head precious ointment, which she kept in alabaster vases. The sinner anointed His feet with perfumed oil, and wiped them with her hair, Christ, on his part, extended mercy to the Jewesses. He raised from the dead the son of the widow of Nain, and Martha's brother, Lazarus. He cured Simon's mother-in-law and the woman who touched His garment. To the Samaritan woman he was a spring of living water, and a compassionate judge to the woman of adultery. The daughters of Jerusalem wept over Him; the holy women accompanied Him to Calvary—brought Him balm and spices—weeping, saw Him at the sepulchre. 'Woman! why weepest thou?' His first appearance after the resurrection was to Mary Magdalene. He said to her, 'Mary!' At the sound of His voice Mary Magdalene's eyes were opened, and she answered, 'Master!' The reflection of some beautiful ray must have rested on the brow of Jewesses!"

One hundred young women are ready to do copying at \$2 per week, where one is willing to do plain cooking at double that sum.

A Brave Daughter.

The family of Dudley, of Northamptonshire, bears for a crest a woman's head crowned with a helmet, the throat-latch loose, the visor thrown up, and her hair flowing and disheveled. Its origin was as follows: In the latter part of the fourteenth century, a brave knight, named Hotot, had a serious dispute with Sir Jasper Ringsdale concerning the title of a valuable piece of land; and, as a last resort, the rival claimants agreed to meet upon the disputed territory and settle the matter by a combat at arms. Hotot was well advanced in age, and upon the morning of the appointed day he found himself laid up with gout, and in such pain that he could not even arise from his chair. In this emergency his daughter Agnes, who held her father's honor very dear, and who desired much to retain the land, armed herself in full knightly panoply, and upon her father's well-known charger, and bearing a lance which she had often used in tilting sport, went forth at the time appointed and met Ringsdale. The fight was stubborn, but the maiden's suppleness of limb finally prevailed over the knight's greater physical strength, and in the end she dismounted him. Quickly leaping from her saddle she drew her dagger, but Ringsdale had no desire to renew the conflict; and, when he had acknowledged himself vanquished, his opponent loosened her throat-latch and lifted up the helmet, thus letting down her flowing tresses upon her shoulders and discovering her sex. The lady Agnes afterwards married into the Dudley family, and in honor of this chivalrous and heroic act her descendants have used the above crest with the motto, "*Galea spes salutis*," which is, freely rendered, "in this (helmet) we trust our honor."

GIVE YOUR CHILD A PAPER.—A child beginning to read becomes delighted with a newspaper, because he reads of names and things which are familiar, and he will progress accordingly. A newspaper one year is worth a quarter's schooling to a child. Every father must consider that information is connected with advancement. The mother of a family, being one of its heads and having a more immediate charge of children, should herself be instructed. A mind occupied becomes fortified against the ills of life, and is braced for emergency. Children amused by reading or study, are, of course, more considerate and easily governed. How many thoughtless young men have spent their earnings in a tavern or corner grocery, who ought to have been reading!

It is for reasons such as the above that the publishers of this paper devote so large a space to reading especially adapted to the Home Circle. We always devote at least one column especially to the young folks—the boys and girls. When they become accustomed to reading their own especial department they will soon become interested in matters of a more substantial nature, which will be from the other parts of the paper, and will thus acquire a taste for useful and instructive reading. The RURAL PRESS is worth more than the amount of its subscription, for this purpose alone, in a family where there are children.

GIRL-STARS.—Speaking of comets, we inhabitants of the earth don't see so many of them. Probably not more than one hundred and fifty have visited the world; but a great astronomer named Kepler once said that there are more comets in space than there are fishes in the sea! I heard a little boy say, the other day, that comets were girl-stars, because they had long hair! I thought it was such a comical idea that I must repeat it. At the same time, the little boy ought to be told that all comets do not have long hair, or whatever else we choose to call the great cloud of vapor that streams from the comet's head. The comet which we have all been admiring this summer, was, as you know, a long-haired comet, or, as astronomers say, it had a very long, straight tail; but sometimes the tails are curved to one side or the other. There are a few comets that have two tails—or, "brushes" as the Chinese call them; and some have had even more. *St. Nicholas for December.*

A GREAT MISTAKE.—All our boys cannot be presidents, nor can all our girls marry rich men. Educate as much as we will, somebody must do the work. Somebody? Nay, at least one half, must be content to work and remain poor. Young woman, if you have a lover, and wish to marry, show him that you can assume a style of dress and manners that are within his reach, and suitable to his condition. There is nothing so discouraging to a man as the idea that when he asks a woman to marry him, he is asking her to step down from style and fashion and life, to humility and domestic plainness. Show him that you do not value these things above the real joys of life.

HUSBAND AND WIFE IN KANSAS.—In Kansas, the husband and wife, under the law, enjoy equal rights and privileges in all things, save the right to elective franchise. The wife holds all the property she had at the time of her marriage, and all she acquires afterward in her own right, the same as the husband does. The wife may buy, sell, trade and carry on business in her own name, the same as her husband. And when she dies her property descends, one-half to her husband and one-half to her children, and if no children, then the whole goes to her husband. The same rule applies to wife and children in case of the death of the husband.

Horse Flesh as Food in France.

Though among the last of the people of Northern Europe to authorize the sale of horse-flesh as food, the French have learned to use it to a greater extent, apparently, than any other nation. It is used in as many ways as beef; and according to a late writer, M. Husson, in the *Economiste Francaise*, the trade in it is actually more profitable than the ordinary butcher's business.

On the first day of 1874, there were in Paris forty-eight shops for the sale of the flesh of horses, mules and asses, their customers belonging chiefly to the middle classes—clerks and thrifty workpeople with families. As a rule the price of the meat is about half that of beef, the best cuts ranging from a franc to a franc and a quarter for the half kilogramme, or from twenty to twenty-five cents a pound. It is in the form of sausage, however, that the largest quantities of this meat is consumed. The tongue, brain and liver are sold as delicacies, and the fat is converted into "butter."

In consequence of the increasing sale for horse-flesh, the price of worn-out horses has increased enormously of late, those fit for food fetching from twenty-five to thirty dollars; a few years ago they could be had for five or ten dollars.

From unpublished official documents, M. Husson finds that the number of horses, asses and mules consumed in Paris during the seven years and a half preceding 1874, were 73,655, more than half of which, however, were eaten during the two sieges. Since the war, the number eaten annually has been from nine to ten thousand. In Munich, Berlin, Vienna and other German cities, the growing taste for horse-flesh is almost equally marked.

TAXING BACHELORS.—There are some intelligent men in the Legislature of Tennessee, and the following excellent bill has been introduced in that body, with a fair prospect of becoming a law:

"WHEREAS, It is the opinion of this General Assembly that bachelors are proper subjects of taxation for the purposes hereafter stated: therefore,

"SECTION 1. Be it enacted by the General Assembly of the State of Tennessee, that bachelorism is hereby declared a privilege, and every male inhabitant of this State over thirty years of age, being of sound mind and enjoying good bodily health, remaining unmarried after the first day of May, 1875, shall pay a tax of ten dollars annually.

"SECTION 2. It shall be the duty of revenue assessors to obtain, for purposes of taxation, a full descriptive list of each bachelor, giving his age, complexion, height and color of his hair and eyes.

"SECTION 3. Be it further enacted, that money collected for taxes under the provisions of this act is hereby declared a part of the common school fund of the county where collected."

If woman suffrage had obtained foothold in Tennessee, and the fair sex had a full representation in both Houses of the General Assembly, we could hardly expect to see any measure brought forward better adapted than this to secure the happiness and well-being of mankind.

HOW A NEW STYLE OF BONNET WAS INVENTED.—Whims sometimes become fashions. Here is a case in point: At Mesdames Therese and Mantle's, the most fashionable of Paris milliners, there is a fair-haired young lady, as much like our poetical ideal of Goethe's Marguerite as life can be. Of course it is this young lady who tries on all the bonnets to show them off to visitors; of course, also, every bonnet looks beautiful on that lovely head! Well, a few days ago our Marguerite was trying on a charming little bonnet forgoing a drooping tip in front and a raised box-plait at back. Suddenly, in a freak, she turned the bonnet round; the drooping brim rested on her hair at the back, and the box-plait found itself in the front! "Oh, how pretty!" exclaimed all the other girls. "It's just like a Phrygian cap!" said one. "It's the bonnet de la Republique!" said another. And quickly an aigrette and feather was placed in front, within the hollow of the box-plait (the aigrette to stand up and the feather to fall over the back), and the bonnet was completed; and not only completed, but it was sold within the day to a great elegant as the last gem out. And this is how Parisian fashions are sometimes made.—*The London Hornet.*

A ROYAL MARRIAGE.—The London correspondent of the *Boston Daily Advertiser* says that the report that the French Prince Imperial is to marry the youngest daughter of Queen Victoria is well founded. The same correspondent endorses the other report, that in consequence of this arrangement the Queen has endorsed the last loan put in circulation in England by the Empress Eugenie. These rumors give a peculiar significance to the recent banquet to the Prince Imperial at Woolwich, which gave rise to so much criticism in both France and England.

FAITHFUL "FOR BETTER OR WORSE."—It is said that for several months past, a young woman has been at work on a ranch near San Quentin, dressed in boy's clothes, her object being to reside near the State Prison, where her husband is confined, for the purpose of visiting and encouraging him.

For Young Men to Think Of.

In the latest of his preachings upon "Popular Proverbs," Dr. Holland closes a thoughtful and suggestive discourse on "Sensual Pleasure," with the following earnest remarks to young men, which deserve to be thought of:

"Oh! if this world could rise out of this swamp of sensuality, rank with weeds and dark with deadly vapors—full of vipers, thick with pitfalls, lurid with deceptive lights—and stand upon secure heights of virtue, where God's sun shines, and the winds of heaven breathe blandly and healthfully, how would human life be blest and beautiful! The great burden of the world rolled off, how could it spring forward into a grand career of prosperity and progress! This change for this country rests almost entirely upon the young men of the country. It lies with them, more than other classes, to say whether this country shall descend still lower in its path to brutality, or rise higher than the standards of its loftiest dreams. The devotees of sense themselves have greatly lost their power of good, and comparatively few will change their course of life. Women will be pure if men will be true. Young men, this great result abides with you! If you could see how beautiful a flower grows upon the thorny stock of self-denial, you could give the plant the honor it deserves. If it seems hard and homely, despise it not; for in it sleeps the beauty of heaven and the breath of angels. If you do not witness the glory of its blossoming during the day of life, its petals will open when the night of death comes, and gladden your eyes with their marvellous loveliness, and fill your soul with their grateful perfume."

BEAUTIFUL LEGEND.—We find in a sermon of Theodore Parker the following story. The subject of his discourse was "Rest." "They tell a story that one day Rabbi Judah and his brethren, the seven pillars of wisdom, sat in the court of the temple on fast day disputing about rest. One said it was to have attained sufficient wealth, yet without sin. The second said it was fame and praise to all men. The third that it was possession of power to rule the State. The fifth, that it must be only in the old age of one who is rich, powerful, famous and surrounded by children and children's children. The sixth said that all were vain unless he kept all the ritual of Moses. And Rabbi Judah, the venerable, the tallest of the brothers, said: Ye have spoken wisely, but one thing more is necessary: He only can find rest who to all things addeth this—that he keep the tradition of the elders. There sat in the court a fair haired boy playing with lilies in his lap, and hearing the talk dropped them in astonishment from his hands and looked up—that boy of twelve—and said: Nay, nay, my fathers, he only can find rest who loves his brother as himself and God with his whole heart and soul. He is greater than fame, wealth and power; happier than a home that is without it; better than honored age; he is law to himself, above all tradition. The doctors were astonished. They said, When Christ cometh shall he tell us great things? And they thanked God, for they said: The old men are not always wise. Yet God be praised that out of the mouth of that young suckling has his praise become perfect."

OCCUPATION.—What a glorious thing it is for the human heart! Those who work hard seldom yield to fancied or real sorrow. When grief sits down, folds its hands, and mournfully feeds upon its own tears, weaving the dim shadows that a little exertion might sweep away into a funeral pall, the strong spirit is short of its might, and sorrow becomes our master. When troubles flow upon you dark and heavy, toil not with the waves, and wrestle not with the torrent; rather seek by occupation to divert the dark waters that threaten to overwhelm you, into a thousand channels which the duties of life always present. Before you dream of it, those waters will fertilize the present and give birth to fresh flowers, that will become pure and holy in the sunshine which penetrates the path of duty in spite of every obstacle. Grief, after all, is but a selfish feeling, and most selfish is the man who yields himself to indulgence of any passion which brings no joy to his fellow-men.

A MODERN DRESS.—This is the way Mary Kyle Dallas says it feels: "Take a man and pin three or four large table cloths about him, fastened back with elastic and looped up with ribbons; drag all his own hair to the middle of his head and tie it tight, and hair-pin on about five pounds of other hair and a big bow of ribbon. Keep the front locks on pins all night and let them tickle his eyes all day; pinch his waist into a corset, and give him gloves a size too small, and shoes ditto, and a hat that will not stay on without a torturing elastic, and a fil to tickle his chin, and a little lace veil to blind his eyes whenever he goes out to walk, and he will know what woman's dress is."

DON'T THROW MUD.—Prof. Sumner, of Yale College is a very sensible teacher. In a recent lecture he said he was careful to discourage in students under his care that inclination to a general criticism of public men so common, which seems to adopt the principle of "throwing mud on a man anyway, and if it don't belong to him he can scrape it off." "We must," he said, "have practical American citizens, who, if they must run down politics, can substitute something in their place."

YOUNG FOLKS' COLUMN.

Four Years Old.

"I'm four years old to-day, papa!
I guess you didn't know
How very old and big and strong
In one night I should grow.
For last night when I went to sleep,
Your boy was only three!
Just see how tall I am to-day—
Papa, do you know me?
I'm four years old!"

"And now I am almost a man
And want a candy store—
To sell ice-cream and nuts and figs,
And lots of good things more!
And—Oh—I want a big black dog
To keep bad boys away—
A pony, just as white as snow
To ride on every day—
I'm four years old!"

"I'm sorry for poor little Ned,
Just think, he's only two!
But if he lives, he'll grow a man,
And all these nice things do.
I'll give him all my tops and balls,
My dresses and my toys
For things like these are very nice
To please such little boys!
I'm four years old!"

"What! four years old! My little son
You fill me with surprise,
My boy become a man so soon!
Can I believe my eyes?
Ah! golden time, so full of hope,
So fresh and sweet and fair!
I well remember now the day
When I, all free from care
Was four years old!"

—Mrs. R. N. TURNER.

Little Bessie.

A Story for the Young Folks.

Little Bessie Marvin was seven years old when she started for the old log school house to school. As a general rule she was good, but sometimes she would disobey her parents. In one instance, she was told by her mother to stop on her way from school at a neighbor's house, and request the lady to come and spend the next day with her. The lady's little girl, Fannie, attended the same school that Bessie did. She was also her seat mate, and consequently she knew all about the intended errand by recess time, and at noon, when the two girls were eating their dinners together under a large shade tree which stood near the school house, she persuaded Bessie to run away from school, and go home with her at recess and remain till school was out.

"And then," said she, "you know we can have such a nice time playing together with my dollies."

"But," answered Bessie, "that would not be right, would it? My mamma would not want me to do that."

"Well, then," persisted Fannie, "your mother would never know but what you stopped on your way home from school; you need not tell her that you ran off."

"But what if Miss Foster, the teacher, should tell her?" said Bessie.

"Oh, pshaw! She will never think of such a thing. And now Bessie, you might as well make up your mind to go; just think of what a nice time we will have."

"But, Fannie, how do you know that Miss Foster will not tell?"

"I should think," said Fannie, "that I ought to know more about such things than you, as I am nine years old and you are only seven."

And so, at last, Bessie was persuaded to go home with Fannie at recess, instead of waiting until after school, as her mother had bid her. So just as soon as the bell rang for them to have recess, the two girls started for Fannie's home, which was a quarter of a mile distant. For a while Bessie's conscience troubled her, but she paid no attention to it and it was finally silenced, and she enjoyed herself very well, but I think she would have had a much nicer time if she could have had her mother's consent to her visit. Finally, when the girls had played with their dolls until they were tired, they went to the barn where Fannie had a very nice swing, and after swinging as much as they wanted to they climbed up into the loft to hunt eggs. As they were coming down, Bessie fell and hurt herself very badly. Fannie tried to call for help, but was so badly frightened that she could speak only in a whisper. All this time Bessie lay on the ground moaning and groaning with pain. At last, after several unsuccessful attempts, Fannie succeeded in calling loud enough for her father to hear her. He answered, and she called again, telling him to come quickly. He came, and found Bessie quite insensible. He took her up and carried her to the house, and dispatched one boy for the parents and another for the doctor. Bessie's parents came and found her still insensible. She was in a stupor which lasted several days.

It was two or three weeks before she was able to be removed to her home, and more than two months before she was able to run about, and she never again was as healthy and active as she was before her injury. My little readers may be sure she never willfully disobeyed her parents again. She cannot attend school any more, because she is not strong enough.

And thus you see, children, how dearly Bessie paid for her one act of disobedience.—*Pacific Monthly.*

GOOD HEALTH.

When to Get Up.

The Duke of Wellington always slept on an iron camp bedstead eighteen inches wide. "When a man wants to turn over," he said, "it is time for him to turn out." The Emperor Nicholas did the same. Mr. Owen says. The principle is well enough; but I think the detail is wrong. Sleep is far too important to be made uncomfortable. My old friend Rossiter fixed his alarm so that, at the fore-dawn moment, the bed clothes were dragged from the bed, and Rossiter lay shivering. I have myself somewhere the drawings and specifications for a patent (which I never applied for), which arranges a set of cams and wheel-work under the bedstead, which, at the moment appointed, lift the pillow-end six feet, and deliver the sleeper on his feet on the now horizontal foot-board. He is not apt to sleep long after that.

Rossiter found another contrivance which worked better. The alarm clock struck a match, which lighted the lamp, which boiled the water for Rossiter's shaving. If Rossiter staid in bed too long, the water boiled over upon his razor, and clean shirt, and the prayer book his mother gave him, and Coleridge's autograph, and his open pocket-book, and all the other precious things he could put in a basin underneath when he went to bed; so he had to get up before that moment came.—*Old and New.*

DOGS AS PROPAGATORS OF DISEASE.—Among the many agents for the spread of infectious diseases, are, it seems, "our domestic pets." For the propagation of fever a dog is sometimes as bad, or worse, than a drain; and a case is referred to in the *Sanitary Record*, in which scarlet fever was carried from one child to another by a favorite retriever. The dog had been reared in a house where scarlatina prevailed, and was subsequently given to a friend of the family. Shortly after, one of the children in the dog's new home was attacked with malignant scarlatina, and died. Disinfectants were used plentifully, and every precaution taken to prevent a recurrence of the malady, but in two months' time a second child took the same disease, in its worst form, and died. As the dog had been the constant companion and playfellow of these children, its woolly coat, it is alleged, became so charged with contagious matter as to render it a source of disease and death. Although it is only fair to the dog to admit that the children may have caught the fever from other sources than his woolly coat, yet there is reason to fear that both dogs and cats, especially the latter, do assist in the circulation of infectious illnesses; and where fever prevails the sooner they are lodged out of the house the better. They are, however, probably not more dangerous in this respect than books. No one who takes up a book from a library ever troubles himself or herself as to the antecedents of the volume; it may have just left the hands of the fever patient.—*Pall Mall Gazette.*

AIR REQUIRED FOR RESPIRATION.—The average amount of air inspired and exhaled at each respiration is 30 cubic inches, and the average number of respirations 20 per minute, so that 500 cubic feet of air pass through the lungs in 24 hours. The amount of carbonic acid exhaled is variable, and is interesting as an index of the rate of internal change. The more energetic the circulation, the larger the quantity of carbonic acid; it is less during sleep than when awake, and less during fasting than after a full meal. A sleeping apartment should always have adequate ventilation while in use.

MUSIC IN SICKNESS.—A curious little book has just been published, entitled "The Influence of Music on Disease," by a French physician. The pith of this book is found in the practical application which proposes a musical cure for disease; and the learned writer expatiates vivaciously on what diseases it is necessary to fiddle at, and what to play the flute over, and for which symphonies are better, and for which banjo variations.

DUST-SPECTACLES FOR THE PROTECTION OF THE EYES IN VARIOUS OCCUPATIONS.—Spectacle-frames, furnished with fine wire gauze instead of glass, carefully fitted to the eye, and fastened to the head by a gum band, have been found by Kuhn to answer perfectly for the protection of the eyes from dust, solid particles, etc., in various occupations, as thrashing, stone-cutting, etc., while they, at the same time, permit the necessary access of air to the eye, and produce no inconvenience whatever to the wearer.

HEALTHY OLD AGE.—The brains of people advanced in years would be greatly strengthened by habits of study. Old people should have their lessons, their mental culture, like children, to keep their brain in a healthy condition. Moderate study is almost a sure guarantee against decaying of the mind as age advances.

QUICK RELIEF FOR BURNS.—Apply a layer of common salt, and saturate it with laudanum. Hold it in position a few hours with a simple wrapper. The colonel says the smarting disappears almost immediately, and the sore gets well with incredible rapidity.

TO DETECT BRIGHT'S DISEASE.—Urine when mixed with nitric acid and boiled should coagulate if the person is suffering from Bright's disease of the kidneys.

DOMESTIC ECONOMY.

How to Roast Beef.

Somebody recently sent a receipt to the *Ohio Farmer* for roasting a sirloin of beef. Another correspondent—"An Old Housekeeper," takes correspondent No. 1 to do after the following manner: "The receipt furnished by your correspondent of the 9th instant, for roasting a sirloin of beef, is not the way that I or any experienced housekeeper would attempt to cook it. It first recommends a 'joint weighing from fourteen to fifteen pounds from a young and fat beef.' Now, everybody knowing anything about good beef would say, 'old and fat beef.' Young beef is neither so tender, juicy or rich as old beef, as the fat and the other flesh on the latter is newly put on. The writer goes on: 'having laid it in the dripping pan, tender-loin downward, we dredge it slightly with flour.' Doesn't this writer know that all 'doctoring' of beef helps to deteriorate its quality? To go on, the meat is then put down in the pan, in which a little water is poured, and then put in the oven, not to roast, but to *stew*. The writer then adds: 'As soon as the surface of the meat is so browned that the juices of the meat will not readily escape, allow the oven to cool to a moderate degree of heat.' This is remarkable. 'When the beef is done, sprinkle with salt and pepper. Empty the pan of all its drippings, pour in some boiling water, slightly salted, stir it about and strain over the meat.'

"This is one way, truly, and it may suit some people who have never eaten really good roast beef; but it will not do for me or my family. Why, beef, to roast it in the best manner, should not be tampered with in any way—not even touched with water before putting in the oven. Instead of laying it broadside in the water of the pan, it should be elevated on a 'meat stand' placed in the pan. A quarter of an hour to a pound of beef is the correct period to roast. No dredging, peppering, salting or pouring over of gravy, etc.; they destroy the sweetness, deliciousness and relishment of the beef."

English Dishes.

"An English Woman" furnishes the *German Town Telegraph* with the following recipes for preparing certain English dishes:—

BULLOCK'S LIVER.—Cut the liver in scores, and salt it with two pounds of salt for a fortnight, then let it drain dry for three days, then rub in two ounces of several kinds of spice, according to your judgment, and all sorts of sweet herbs chopped very fine; also a good seasoning of onions and shallots. Then hang it in a dry cellar for a time, and then put it in a bag for use. A small piece is sufficient to make gravy for hares, ducks, &c. It will keep many months, and be useful to use in the summer.

FRICASSEED TRIPE.—Cleanse tripe well from the fat, cut it into pieces about two inches broad and four long, put it into a stew-pan and cover with milk and water; let it boil till tender. Slice two Spanish onions and put in a stew-pan with a quarter pound of butter; salt, pepper and nutmeg to flavor, and let them brown; put this sauce with the tripe, add the juice of a lemon, and serve very hot.

YORKSHIRE PARKIN.—Two and a half pounds of oatmeal, two pounds of treacle, a quarter of a pound of moist sugar, half a pound of butter rubbed into the oatmeal—a little ginger or finely-cut candied peel may be added if liked; mix all well together, put into tea-cake tins, and bake.

WINTER SALAD.—Boil some potatoes and some onions, and when cold cut them into slices, together with some beetroot. Dress as any other salad. The onions should be cut so as to fall apart in rigs.

To Mend Tinware.

Every housekeeper may not know of what they are capable in the line of keeping their tinware in order. For the benefit of such we will say that it is easier to solder such things than to pay a traveling tinker two prices for mending them. Take a sharp knife and scrape the tin around the leak until it is bright, so that the solder will stick. Then sprinkle on a little powdered resin, (they have liquid solder to sell, but resin will do as well), lay your solder on the hole, and with your soldering iron melt it on. Do not have the iron too hot or the solder will adhere to that. After two or three trials you can do a job that you will be proud of. If you do not own a soldering iron procure one by all means; but when hard pressed I have used the knob on the end of the fire-shovel, or a smooth piece of iron, or held a candle under the spot to be mended. Anything is better than stopping leaking pans with beeswax or rags. Try it, young housekeepers, and see how independent you will feel. Your pans should be dry when you take them in hand.

RICE JELLY.—Boil one pound of flour with half a pound of loaf sugar in a quart of water until the whole becomes a glutinous mass, strain off the jelly and let it stand to cool. This is nutritious and light.

CANDY.—Two cupfuls of sugar, two large tablespoonfuls of vinegar, and half a cupful of water. Boil together, and add vanilla or lemon for flavor. It must be worked before it is very cold.



A. T. DEWEY. W. B. EWER. G. H. STRONG. J. L. BOONE
PRINCIPAL EDITOR..... W. B. EWER, A. M.

OFFICE, No. 224 Sansome street, Southeast corner of California street, where friends and patrons are invited to our SOLENTIFIC Press, Patent Agency, Engraving and Printing establishment.

Subscriptions payable in advance—For one year, \$4; six months, \$2.25; three months, \$1.25. Remittances by registered letters or P. O. orders at our risk. ADVERTISING RATES.—1 week, 1 month, 3 months, 1 year
Per line..... 25 .80 \$2.00 \$5.00
One-half inch..... \$1.00 \$3.00 \$7.50 24.00
One inch..... 2.00 5.00 14.00 40.00

Large advertisements at favorable rates. Special or reading notices, legal advertisements, notices appearing in extraordinary type or in particular parts of the paper, inserted at special rates.

No Quack Advertisements Inserted in these columns.

GET UP CLUBS FOR THE RURAL PRESS.

OLD SUBSCRIBERS and other reliable persons are authorized to get up clubs of five or more subscribers for this paper at \$3 per annum for each name. Our terms for all subscribers are cash in advance. Postage will be prepaid by us after January 1st, 1875. The papers will be addressed singly to each individual. Regular subscription price \$4. Sample copies free. Let those who will work for the Rural hear in mind that they will confer a lasting benefit on new subscribers, besides improving their own talents by business practice. Try your hand and report at once. We offer at a chance. You do not know what can be done till you try!

SAN FRANCISCO:

Saturday, April 10, 1875.

TABLE OF CONTENTS.

GENERAL EDITORIALS.—Mowers and Reapers; Water Pipe, 233. Pre-emption Rights and Railroad Claims; San Gabriel Orange Grove Association; The Cattle Breeders, 240. Brown Leghorns, 241.

CORRESPONDENCE.—Growing the Castor Bean; From the Regions of Snow; Los Angeles County; From Napa County; From San Diego County; Bee Business in San Diego County; Cranberries in California, 234.

SHEEP AND WOOL.—Wool Market; Breeding Sheep for Long Wool and Mutton, 234.

THE HORSE.—What Horse Shall Farmers Breed? Importation of Norman Horses, 235.

USEFUL INFORMATION.—Wheeled Vehicles; Restoring Burnt Iron; The Exclusion of Damp from Brick-work; The Omnibus not a New Invention; A Three-wheeled Omnibus, 235.

HOME CIRCLE.—Beyond the Stars (Poetry); Farm House Chat; The Beauty of Jewish Ladies; A Brave Daughter; Give your Child a Paper; Girl-Stare; A Great Mistake; Husband and Wife in Kansas; Horse Flesh as Food in France; Taxing Bachelors; How a New Style of Bonnet was Invented; A Royal Marriage; Faithful "For Better or Worse," 238. For Young Men to Think Of; Beautiful Legend; Occupation; A Modern Dress; Don't Throw Mud, 239.

YOUNG FOLKS' COLUMN.—Four Years Old (Poetry); Little Bessie, 239.

GOOD HEALTH.—When to Get Up; Dogs as Propagators of Disease; Air Required for Respiration; Music in Sickness; Dust-Spectacles for the Protection of the Eyes in Various Occupations; Healthy Old Age; Quick Relief for Burns; To Detect Bright Disease, 239.

DOMESTIC ECONOMY.—How to Roast Beef; English Dish; To Mend Tinware; Rich Jelly; Candy, 239.

MISCELLANEOUS.—The Life of Locomotive Wheels; Car Wheels, 234. Darwintism; Photographic Paralele and Wearing Apparel; Tungsten Steel; A New Plan for Heating Dwellings; Eucalyptus Globulus; Crops and Stock; Combustion, 235.

PATRONS OF HUSBANDRY.—Progress of the Patrons in California; New Granges; Meetings; Etc., 236-7.

AGRICULTURAL NOTES from various counties in California, 237.

ILLUSTRATIONS.—Wood's Iron Mowing Machine; Wood's Self-Rake Reaping Machine, 233. Brown Leghorns; Economy of the Vegetable Kingdom, 241.

POPULAR LECTURES.—Economy of the Vegetable Kingdom, 241-4.

THE CONFESSIONS OF A MINISTER.—Purporting to be "Leaves from the Diary of the Rev. Josephs Leonhardt, D. D." This is an interesting \$1 book, of 136 pages, published by H. Peterson & Co., Philadelphia. The *Advance*, Chicago, Ill., says: "It is written with considerable skill and power, and by a minister, one would judge from the ideas and style. The intention seems to be to defend the marriage institution, to show its insidious perils, and to reveal the psychological process by which a minister might be brought into guilt without meaning to act the hypocrite."

DON'T KNOW THE ASSOCIATION.—A correspondent writes us from Compton, under date April 1st, asking for "information in regard to the Anti-Monopoly Association of the Pacific Coast," of which Chas. Lorge is secretary. We are not in the habit of saying "give it up" in such cases, but this correspondent has "got us," as we are not aware of the existence of any such association.

THE CHAMPION.—The attention of our readers is called to the large advertisement of Baker & Hamilton, illustrating the Champion Mower and Reaper, and other important agricultural machinery.

ON FILE.—"San Jose Industries," Mack; "From Los Angeles," A. C. K.; "Suggestions on Irrigation," W. B. H.

Pre-emption Rights and Railroad Claims.

The term "gobbled up," as applied to the absorption of government lands by railroads, is perhaps the most fitting that could be applied to these cases, but taking into consideration the wrongs that are committed upon settlers at this ravenous feast, gobbling is "no word for it." The expressions of public dissatisfaction in these matters have referred, principally, to the lands thus grasped and retained from future pre-emption, while little consideration is apparently given to the fact that portions of the land thus appropriated to railroad purposes, are occupied by *bona fide* settlers, who, by means of these grants are subjected to great loss and disappointment. We have been informed that some of these grants of a recent date have been so constructed that the railroads are really allowed possession from a far anterior date; in one case back to 1863. The wrong thus inflicted on those who have occupied portions of these lands during this time will readily be seen.

Our attention has been called to this matter at the present time by the following letter from a gentleman in San Diego county. "Pardon me for suggesting to you an article for your columns that would prove of much interest to many of your subscribers. If you will examine a map in the Land Office you will see that an immense area of lands has been withdrawn from sale or settlement for railroad purposes. Even sections belong to government and are open to settlement, the odd sections to the railroads. Many parties made *bona fide* settlements prior to the grant or subsidy to railroads and have complied with the requirements of the homestead laws of Congress. Some of the lands were surveyed prior to granting the subsidy—but the field notes with plat were not filed in the branch offices until recently, and in one instance as late as January 7th, 1875. Every settler on the lands prior to grant of subsidy believed himself entitled to 160 acres, under the homestead laws, either where the lands were surveyed and no return made by the Surveyor-general of California to the appropriate branch office or upon unsurveyed public domain.

"Interested parties have made application to file declaratory statement of homestead, and were informed that they could homestead but eighty acres, as the field notes were not returned in time."

"I am familiar with instances where the parties have been living upon their homestead claims for six or seven years. Does the law of Congress make them the sufferers, since the fault lay with the Surveyor-general? They have availed themselves of the first and only opportunity of 'proving up,' and are told by the Receiver at the branch office that he will receive proofs but for eighty acres; they may file a pre-emption upon the 160 acres, and after ninety days, or within thirty months, pay for the same at \$1.25 per acre.

"Several letters have been addressed to General Stratton, asking if the ruling of the Receiver was correct. I have myself written twice to the Hon. Commissioner, General Land Office, but up to date have not heard from either. It is a matter of much importance to all parties settled within the limits of the grant to railroads. If entitled to 160 acres they of course want it, if not, many of them would be able to pay \$200, while others cannot for the present. Will you interview General Stratton at the Land Office? He will doubtless readily give the information, together with other matters pertaining to lands of California that would make an article of general interest to the readers of the best agricultural paper in the United States."

There is manifestly a prevailing sentiment which does injustice to the government officials in connection with this matter. The fault is in the grants, and not on the part of the officers whose duty it is to see that the provisions of the law are properly carried out. Although they may recognize and deplore the obnoxious features of these grants, no one could be so unreasonable as to expect any modification of them in the fulfillment of their official duties, and as to the imputations of delinquency, or withholding information in the matter, we are satisfied that they are unfounded and unjust. In compliance with the wish of our correspondent we have interviewed General Stratton on this point, and learn that all requests for information on these subjects are complied with in a prompt and thorough manner; the majority of such letters being answered by himself.

It is of the first importance in this connection that people understand the difference between the pre-emption and homestead laws. Under the pre-emption law the settler's rights begin from the day he goes upon the land with the intention of making it his home. But under the homestead law it is not so. The settler's rights under the homestead law date from the day he makes his entry at the Land Office and obtains his duplicate receipt. The homestead law fixes the quantity of land to be entered according to the price at the date of entry. It, therefore, at the date of entry the land is \$2.50 per acre the homestead claimant gets only eighty acres; whereas under the pre-emption law his right, if he settled before the railroad withdrawal, would date before the in-

crease of price, and he would get 160 acres at \$1.25 per acre.

The settler, therefore, in seeking redress through the Land Office, should understand the difference between the operations of the two laws, in order to have a correct estimate of what he is entitled to.

San Gabriel Orange Grove Association.

We are informed that an organization, bearing the above name, located one year ago in the San Gabriel valley, six miles east of Los Angeles, upon a portion of the San Pasqual rancho, in the immediate vicinity of one of the oldest and largest orange orchards in the State. Its elevation is 1,100 feet above the sea, and 800 feet above Los Angeles. The soil is a very rich decomposed granite and sandy loam. Good crops of corn, potatoes and barley were raised last year without irrigation.

The Association has sub-divided a portion of its lands into one hundred fifteen-acre tracts, which are mostly held by original share-holders. Some twenty-five or thirty dwellings have been put up, and as many more will be erected this summer. A public school has been established and funds are subscribed for a school building. Abundant water is obtained from springs in the adjacent mountains, and conveyed in large iron pipes into reservoirs convenient for irrigation, and so that the houses may have hot and cold water at any point.

The people represent many of the Eastern and Northern States. The purity of the air makes the peaks of San Bernardino, seventy-two miles distant, seem but ten or twenty miles away. The elevation of the locality and moderate distance from the sea, gives a salubrity of climate which attracts many visitors; and the people have opened their houses to the numerous pleasure and health seekers, giving to the neighborhood the Eastern dialect, manners and customs. The chief business will be the production of grapes and semi-tropical fruits. Many thousands of trees and vines have been planted, and throughout the colony the people are as busy as bees, planting and cultivating their lands.

Such citizens will add largely to the moral and material interests of any State, and we give them a hearty welcome.

OAKLAND REAL ESTATE.—No city in this State equals Oakland in its general improvements and rapid growth. The building of the State University upon its very border, the large Court house for Alameda county, several large and new churches, together with the \$200,000 appropriation by the Government for the improvement of its inland channels, stimulates great confidence in the future of San Francisco's sister across the bay. Oakland may well be proud of her public and private educational institutions. Its population is, in a great measure at least, being composed largely of people who choose a quiet home rather than the clatter and bustle of a great city. It has more advantages than we can stop to name, and people in the mines and agricultural districts are constantly investing in real estate in Oakland and vicinity for present and prospective homes. We think men are prone to make less wise investments. Parties who wish to post themselves further on the future prospects of Oakland, and to learn of the best chances offering for the sale of lots in Oakland and land in Alameda county, are confidently referred to the advertisement of Messrs. Bigelow & Rowell in the *RURAL PRESS*. These gentlemen, long residents of Oakland, are among its most enterprising and respected citizens.

FROST AND SNOW.—During the day and evening of April 5th many complaints were uttered in San Francisco about the unusual coldness of the weather, but people here did not realize that in some portions of the State the severity of the weather was producing disastrous results. It is feared that the grape crop in some localities has been seriously injured. In Los Angeles ice froze one-fourth of an inch thick, and young potatoes and other vegetables were cut down by the frost. In Nevada City the ground was covered with snow. In Delano a violent rain storm was followed by a fall of snow. Sacramento was visited by a snow storm, but in some other portions of the State the cold wind was followed by a fine rain. The potato vines at Half Moon Bay are reported to be cut down by the heavy frosts of the early part of this week. More than two-thirds of the present growing crop is supposed to be destroyed. So said our informant on Tuesday.

It is not supposed that this cold set-back will materially affect the aggregate product of the season, but it will probably be quite a local mishap in some cases, and cause serious individual losses.

A NEW LAND AGENCY.—We invite the attention of our readers to the card and advertisement of E. L. Smith & Co., in this number of the *RURAL PRESS*. The personal acquaintance of the publishers of this paper with the Hon. E. L. Smith, extends through a period of nearly ten years, and we know him to be a gentleman of integrity, and in all respects up-right and reliable. Mr. Smith is well informed as to the resources of this coast, and we commend his agency to our land owners and those seeking homes in California or the Northwest.

The Cattle Breeders.

The annual meeting of the California Thoroughbred Cattle Breeders' Association was held on Tuesday, April 6th, at the Grand Hotel, San Francisco. Secretary Page called the meeting to order, and stated that Mr. Carr, President of the Association, had notified him that he could not be present at the meeting. Cyrus Jones, of San Jose, was elected President pro tem. Col. Younger, of San Jose, and others, participated in discussion as to the propriety of rotating the places of meeting, instead of holding all of the meetings in San Francisco, but no definite action was taken in the matter.

The election of officers for the ensuing year was next taken in hand. It being announced that Mr. Carr declined re-election, Mr. Cyrus Jones, of San Jose, was unanimously elected President of the Association and Mr. Page declining re-election as Secretary, Mr. Robert Ashburner, of School House Station, San Mateo Co., was unanimously elected to that office.

California Thoroughbred.

Col. Younger remarked, that although California possessed advantages equal if not superior to any country in the world for producing superior stock, and though the breeders of this State have improved these advantages—the result being a class of stock unsurpassed by any that can be brought in competition with them—he did not think it right to use no discrimination between stock brought up to this standard by our own persevering breeders, mostly poor men, and that imported on speculation.

Mr. Jones stated, in proof of the high estimation in which our thoroughbred stock is held outside of California, that he had recently had orders from the East for several head of his thoroughbred short-horns. One of these orders was for a three year old heifer, the price being \$2,500. A few days before the intended shipment, the heifer unfortunately died. Another, however, is soon to be sent in her stead, at the same price. These purchases were made entirely on the pedigree estimate, the animals having never been seen by the buyers. Mr. Barnum, of the *RURAL PRESS*, remarked that he had received many inquiries of late from Eastern parties in regard to California thoroughbred and graded stock. In answer to parties who wished to ascertain the price of such stock in California, and others who asked advice about bringing fine stock with them when they come here to settle, he had considered it impracticable to set any prices, and had advised farmers to bring no stock with them, as they can purchase the highest, as well as other classes of stock here, at as low rates as they can in their own States. He was sustained in this position by all the members present.

Sales at Fairs.

Mr. Overheiser introduced the subject of stock sales at fairs. But one opinion was expressed on this point, which was, that they had better be discontinued, and that the annual sales be held in the spring, as the most suitable time; this being the season when stock owners know what they want; and that the Association, at its fall meeting, decide where such sales shall be held.

Premiums on Graded Stock.

Mr. Page suggested the propriety of wiping out all premiums on graded stock, but Messrs. Ashburner and Overheiser thought the breeding of graded cattle should be encouraged. Much of the graded stock now in this country possesses great merit, and the cattle in this State are undergoing a great improvement by this means. Many farmers who cannot afford to purchase thoroughbreds can greatly improve their stock by means of grades. It might be advisable to limit the State Fair premiums to thoroughbreds, but in county and district fairs the breeding of grades should be encouraged by premiums.

Other Fair Matters.

Some other points in connection with fairs were discussed, resulting in the following resolutions:

That the Board of Directors of the State Agricultural Society be requested to appoint one but stock breeders on committees on stock. That this Association enter a protest against the payment of entry fees: entries should be free to all. That a committee be appointed to confer with the Directors of the Bay District Fair Grounds Association on the subject of premiums; and Messrs. Ashburner, Younger, Edwards and Carr were appointed as this committee.

Messrs. Overheiser, Ashburner, Younger and Jones were appointed a committee to draft a constitution and amend the by-laws of the Association.

The President and Secretary of the Association were requested to prepare essays on subjects pertaining to cattle breeding, to be read before the Association at its next meeting.

After which the meeting adjourned, the time and place of the next meeting being subject to the call of the President and Secretary.

AUGUSTUS P. MEROY, of San Jose, introduced the Buckwheat engine for the first time to the readers of the *Press*, through our advertising columns, to-day. We have known the junior member of this firm for many years, and should have great confidence in any article recommended by our old friend.

Brown Leghorns.

Written for the RURAL PRESS, by M. EYRE, Napa, Cal.

As egg producers I deem the Brown Leghorns unsurpassed even by the Penciled Hamburgs, while in the hands of the farmer, no fowl, not even the Brahma or Cochins, can be reared with fewer deaths in the yard. The flesh is much better than that of the White Leghorn, fully equal, perhaps superior, to the common run of fowls, but they are small, seldom running over nine pounds to the pair, and their value consists essentially in their wonderful qualities as egg producers, and in their extreme hardiness and freedom from disease. I think that I may safely say that, though I have not kept an account of every hen, I have had not one which laid less than 14 dozen eggs in a year, which at the average price in Napa for common eggs (it ranges from 25 to 60 cents per dozen), say 36 cents, is \$5.05. Running at large on a farm, much of the time, they will require no feed. At other times I consider three quarts of bran and shorts, and two quarts of grain, a very good allowance per day for 100 fowls, the quantity to be increased, even doubled as to grain, on very wet, cold days, and lessened at other times. At the rates I have paid this year that brings the cost of grain and feed for 100 fowls up to seven cents per day or 26 cents a year for each fowl. This appears so small that many will discredit it at once. But I am confident that the farmer who has 100 Brown Leghorns which run at large and have access to the barnyard, straw-pile, etc., with grass and a run of a stubble-field mayhap, will obtain the greatest success by not feeding one cent's worth more than the above. In fact, I would recommend that all feed cease during June, July and August. About September 1st, I would give cooked meat, five or six pounds per week to 100 fowls, or the scraps from the table and each day four or five quarts of grain, as the fowls have begun moulting. By October 1st, or a little later, the moult will be ended, and then I would return to two quarts of grain in the evening, and in the morning give four quarts of bran and two of shorts, mixed into a stiff mush with warm water, or better still, with milk; and if it can be spared, give them milk to drink. In ten days nearly every hen will begin to lay and continue laying all the time; eggs are worth fifty and sixty cents per dozen. But to obtain these results you must stop feeding early enough in the spring, so that the Leghorns may quit their steady laying and prepare for moulting. By the above method the average daily consumption of food for the 365 days in the year will, if anything, be less than I first stated, or less than a total for 100 fowls of 730 quarts of wheat (or other grain), 730 quarts of bran and 365 quarts of shorts, and at the weight of 32 quarts of wheat to a bushel of 56 pounds, and the regular weight of bran and shorts, the whole cost will be less than \$30. This allows nothing for milk or scraps or what they pick up around the barn and in the fields, but for which their manure, if properly utilized, will far more than pay. The increase in receipts from sale of asparagus cut from one-quarter of an acre properly manured with the droppings of 100 fowls, will pay the entire cost of the keeping of those fowls. Five acres devoted to the use of 100 Brown Leghorns, and this would be an immense estate for them, will pay better than any ten acres of the finest vineyard, or twenty acres of the best grain land in California, and the cost of care and keeping, etc., is but a tithe in comparison. They are non-sters; I recommend the use of Brahmas or half Brahmas for rearing the young. I would keep 10 to 20 such hens with 100 Brown Leghorns, and no cocks but the Leghorn. The eggs can be readily distinguished, those of the Leghorns being white and those of the Brahmas showing the brown tinge.

The cut will convey a very good idea of the looks of the bird. The comb sometimes grows very large indeed—one of my breeding-cocks has one, by actual measurement, five inches long and three and one-half high. I will not give the technical description from the Standard; the plumage is nearly that of the black-breasted red game, except that some cocks, and such make the best getters of pullets, have brown in the breast. We must breed for plumage very much as we do in Partridge Cochins. I think, and my opinion is that of Mr. Pitkin and others with whom I have corresponded, that these fowls might be bred into as many colors and classes as the games—and that a certain amount of in-breeding develops the best feathering. Still in this, or in any breed, the continued breeding of brother and sister produces a fowl lacking in stamina and nearly worthless. This fowl has, by some breeders, been crossed with the Black Spanish to obtain the white lobe, and with game for the penciling, and purchasers should be careful not to buy except from those whose guarantee that the fowls contain no such blood they can trust. Too much stress is laid upon the white ear-lobe and by some on the size of the comb, merely fancy and meretricious points, especially the ear-lobe, which the merest scratch will tinge. Still, I would not advise the purchase of a Brown Leghorn with red lobes, except the lobes had once been white and were tinged by fighting or some such accident. To those who keep only one yard, or allow all their Brown Leghorns to mingle, I would recommend the selection of cocks with solid black breast, and hens or pullets with even plume, the darker the salmon color in the pullet's breast the better, rejecting those of lighter plumage. And if, in the second year, the hens show the

salmon breast with but few of them turning very light in color, the owner may congratulate himself on possessing a very good strain of brown Leghorns.

To the farmer who proposes to keep them as farm stock, I would recommend the sale of light pullets and of the hens which moult out too light, and that the rich salmon-breasted hens be retained until at least four years old. Young cocks may be bred once to their parents, but the progeny should not be allowed to breed to any relation. New blood need thus be had only once in three years, unless oftener preferred, and the purchase of a setting of eggs will generally accomplish this object.

POPULAR LECTURES.

Economy of the Vegetable Kingdom.

Tenth Lecture Delivered before the University of California College of Agriculture, on Monday, February 1st, by PROF. C. E. BESSEY.

[Reported and Illustrated for the RURAL PRESS.]

The Heath, Sunflower, Madder and Parsley Family.

The family we take up to-day is the Heath family, *Ericaceæ*, a group including about 1,200 species. They are found mostly in temperate



BROWN LEGHORNS.

climates and usually in localities which are quite moist. They are inclined to grow in bogs and marshes and are trees, herbs, or shrubs, most of them being shrubs. A few of them are herbaceous, a few are white and ghostly, as the parasitic Indian Pipe, of but a few inches in height, and others again are tall

Fig. I.



Ox Eye Daisy, or Whiteweed.

and tree-like. Taking the order as a whole, we find that it may be said to be composed of the Heath family proper, or certain little outline groups, and in these outline groups, we have certain plants. The Heath found so abundantly in England, Scotland, and very abundant on the Cape of Good Hope has small leaves which continue green all the year.

While the most of the plants of the order are familiar with are shrubby, Manzanita and Madrona are trees, much removed in their aspect; they are usually put, however, into what

is called an outline group of the order. Throughout the greater part of the group, including the heaths proper, there runs a narcotic poisonous principle.

Two of them furnish valuable timber. First, is manzanita, *Arctostaphylos glauca*, a native of California and other portions of the Pacific coast, and here I have a little block of manzanita, which will give you a pretty good idea of its wood.

The madrona is called *Arbutus Menziesii*, being named after Menzie, who made a great many discoveries along this coast.

[Professor asks if they know how far manzanita extends north. One student says, I know they are as far north as Siskiyou county.]

[Speaking of a specimen of manzanita or madrona.] I should say this was fully

Equal to Rosewood.

I made the observation that I supposed they would not grow large enough, but was told that upon the mountains they grow to be very large; large enough so that they can get good pieces for making furniture. It branches out so that it can be used for veneering or any such purposes as that. I have seen it made use of in a manufacturing establishment. They seem to cut it up into thin pieces. There were pieces put upon the furniture so as to represent raised panels, and in this way they use it quite largely. The madrona is a very fine wood. I see it stated in the books to grow sometimes to the diameter of twelve inches.

Now, looking the whole order over, I find that there is but one other species well known which is large enough to be used in the arts at all and that is an allied species of this madrona found in Southern Europe, which attains about the size of our tree. So that we are very fortunate in having this very pretty and valuable wood.

Several species furnish food in their berries. *Gaylussacia* furnishes, in one or two of its species, what are called properly huckleberries, or frequently in the books, whortleberries. In the market, huckleberries and blueberries are mixed up and you can scarcely tell them, one from the other.

The Cranberry, belonging to *Vaccinium ma-*

Fig. II



Leaves, Flowers and Fruit of Coffee Tree

crocarpon, is now grown very extensively in certain parts of the East. Growers make cranberry bogs in wet places. This cranberry has a trailing stem, not usually more than an inch in diameter, usually grown in moss found in marshes. It is quite productive, and with its fruit you are probably acquainted. The difficulty in growing them here would be, the dry season.

If you have here what are called sphagnum bogs—this bog moss found in such places, having, in a high degree, the property of absorbing

moisture from the atmosphere—you may be sure that you can grow the cranberry. A very few cranberries have been grown on ordinary dry land, but so far the experiment has not been very satisfactory.

A good many of the nurserymen in the East are advertising the upland cranberry. It doesn't amount to very much, you could not keep enough moisture around the roots in a tulle. You will find, perhaps, down here, a very soft mud and running up sometimes for two feet, will be these old moss stems. The moss is growing at the top and dying at the bottom. Now, these cranberries seem to root very little down below this, and they trail along all through this. You have to imitate that to a certain extent; either by a system of irrigating or in some manner you must keep

The Lower Part of this Stem Moist.

Wherever growers have had any lasting success it has been only by imitating the natural growth. But, as I said, some are trying to grow it upon upland. Massachusetts and Wisconsin are the great districts for cranberry culture, and all the eastern markets are supplied from this source, excepting the supply from the wild bogs throughout the States where it abounds. Oregon is here the source of supply.

A few species of the order furnish essential oils or essences. The only one that we need notice, is what is called the wintergreen. Its oil or essence is derived from the little plant, *Gaultheria procumbens*, called wintergreen. It is usually a little plant three to four inches high, bearing bright, red berries. They gather the plant and distill the leaves, distilling over the volatile oil used in medicine, flavoring candies and flavoring drinks. It is said to be stimulating, and so is more or less valuable.

The great importance of the order lies in its furnishing a large number of very beautiful ornamental plants, and wherever you find an *Ericaceous* ornament, you may be very sure of having always something quite pretty. The forms are always quite pretty. Take up a flower and examine it; it has all the perfection of a symmetrical form, instead of having a looseness as though it had not been quite finished. Indeed, I should say that among these plants are the most perfect forms we have.

The next one is the genus *Erica*, found in the region of the Cape of Good Hope. There are 300 species; perhaps 250 of them have been grown. I noticed in Woodward's Gardens quite a number of them. One species of *Erica* is the heath I spoke of a while ago. Rhododendrons grow usually to six feet in height, with large showy flowers. Azaleas, which may be seen in almost any greenhouse, have large, spreading flowers of all colors. I would caution you again against making free use of these plants, only as you know what they are. In fact, it is known that honey made from some of these, the Rhododendron, for instance,

Is Poisonous.

It would be injudicious to have very many of them growing near where bees are kept. The plant that covers the heaths of Scotland belongs to this family and originally belonged to this genus, *Erica*. But you understand that whenever we get a genus which has a great many species, there is a great temptation for the botanist to divide it up. There are now about 400 species of the genus *Erica*, so the botanists are splitting it to pieces. I think the true heath has been taken out of that. The only true *Erica* we have in the United States grows in two or three restricted districts in Massachusetts.

The Composite or Sunflower Family.

Compositæ, containing fully 10,000 species. It is what is called a very "natural" order; that is, any one seeing the plants would class them together, even without a knowledge of botany.

They are found in all countries and in all climates, having perhaps as wide a distribution as any order. Now, in all this vast assemblage, it is remarkable that there are hardly any trees. A considerable number are shrubby; but the great majority are herbaceous and very many of them are only annuals. A bitter, astringent principle runs through a large part of the order, but this very rarely becomes poisonous. There are a very few poisonous plants, but as a general thing you may chew of them or eat of them with safety. Though including so many species, comparatively few are of economic value. Perhaps, taking the number of species, this is the most valueless order we have. Under the food plants we have what is called the Jerusalem Artichoke, *Helianthus tuberosus*, a very near relative of the common Sunflower. This produces tubers resembling the potato, having very nearly the same general properties, and they are used in some places, because they are very readily grown. It is a perfectly hardy plant throughout the whole United States, so that the people need not repant it. If a field is once planted with artichokes, all that is needed is to cultivate it. I think it would be well to

Grow it Where Swine are Kept.

It would be very valuable grown in this way; when the hogs are feeding on corn, and need a change of food, the grower could turn them in and let them get these tubers. The culture of the potato, however, has mostly driven out the Jerusalem artichoke. By the way, "Jerusalem" does not mean it came from Jerusalem. It is an American—Brazilian—plant, and was taken to Spain. In Europe it was called *girasole*; as it passed over into the English language, the common people got hold of it and changed it to Jerusalem.

Continued on Page 244.

BREEDERS' DIRECTORY.

PURCHASERS OF STOCK WILL FIND IN THIS DIRECTORY THE NAMES OF SOME OF THE MOST RELIABLE BREEDERS. OUR RATES:—Six lines or less inserted in this directory at 50 cts a line per month, payable quarterly.

CATTLE.

R. ASHBURNER, Baden Station, San Mateo Co., Cal., breeder of Short-horn cattle. Pure Bred Bulls for sale, from cows of choice milking strains.

J. BREWSTER, Galt Station, Sacramento Co., Cal., breeder of Short-Horn Cattle.

J. D. CARR, Gabilan, Monterey Co., Cal., breeder of Trotting Horses, Short-Horn Cattle, Thoroughbred Spanish Marino Sheep and Swine.

A. MAILLARD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.

W. L. OVERHISER, Stockton, San Joaquin Co., Cal., breeder of Short-Horn Cattle and Berkshire Swine.

PAGE BROTHERS, 304 Davis street, San Francisco, (or Cotate Ranch, near Petaluma, Sonoma Co.): Breeders of Short-Horns and their Grades.

STANTON & POWERS, Sacramento, Cal. Breeders of Jersey Heifers and Bull Calves at low rates. Address L. C. Powers, Sacramento, Cal.

MOSES WICK, Oroville, Butte Co., Cal., breeder of Short-Horn Cattle. Young bulls for sale.

SHEEP AND GOATS.

H. F. BUCKLEY, Hopeton, Cal. Thoroughbred also $\frac{1}{4}$ and $\frac{1}{2}$ Cotswold grade sheep.

MRS. ROBERT BLACOW, Centerville, near Niles Station, Alameda Co., Cal. Pure-Blooded French Merino Sheep for sale.

THOS. BUTTERFIELD & SONS, Hollister, San Benito, Cal. Importers and breeders of Angora Goats and Sheep.

N. GILMORE, El Dorado, El Dorado Co., Cal., importer and breeder of Angora Goats.

LANDRUM & RODGERS, Watsonville, Santa Cruz County. Pure-Bred Angora Goats and Cotswold Sheep for sale.

SEVERANCE & PEET, Niles, Alameda Co., Cal., breeders of Thoroughbred Spanish Merino Sheep.

A. G. STONESIFER, Hill's Ferry, Stanislaus Co., Cal., breeder of Pure-Blooded French Merino Sheep.

L. M. SHIPPEE, Stockton, Cal. Importer and breeder of Spanish Merino Sheep, Durham Cattle and Essex Swine.

POULTRY.

GEO. B. BAYLEY, Cor. 16th and Castro streets, Oakland, Cal. Imported Brahmas and other choice Fowls for sale.

ALBERT E. BURBANK, 43 and 44 California Market, San Francisco, importer and breeder of Fancy Fowls, Pigeons, Rabbits, etc.

M. EYRE, Napa. Bronze Turkeys, Emden Geese, Choice Fowls, Pigeons, Rabbits, Ferrets.

WILLIAM KNOWLES, Brooklyn, Alameda Co., Cal., has for sale Eggs for Hatching, carefully packed, from pure-bred Bronze Turkeys, at \$7.50 per dozen; Brown Leghorns at \$4.00 per dozen; Houdans, White Leghorns and Buff Cochins at \$3.00 per dozen; two dozen for \$5.00. Sent C. O. D. to any address.

Mrs. L. E. McMAHAN, Dixon, Solano Co., Cal. Bronze Turkeys now ready for sale from the best imported stock; also eight varieties of choice Chickens; Eggs in season can be purchased very reasonably.

Mrs. L. J. WATKINS, Santa Clara, Game Poultry, White Leghorn, S. S. Hamburg, Game Bantams, and Aylesbury Ducks. Also, Eggs. 21v8-31

J. Y. WILSON. WM. FAULL. W. L. MERRY

WILSON, MERRY & CO.,

Provision Packers

And Dealers in

SALTED AND SMOKED MEATS,

Lard, Etc.

PROP'S BLACK POINT PACKING HOUSE.

We respectfully call the attention of Farmers and Stock Raisers to the fact that we are always prepared to purchase hogs, cattle and sheep at full market prices, for Cash, and shall be glad to answer promptly any inquiries addressed to us on the condition of the Market.

Office No. 223 Sacramento St., Near Front, San Francisco.

Woodland Poultry Yards.

W. J. PRATHER, - - Proprietor.

PRICE LIST:

EGGS PER DOZEN.	FOWLS PER TRIO.
Light and Dark Brahmans.....	\$5 00
Buff and Partridge Cochins.....	5 00
White Cochins.....	5 00
White Polands.....	6 00
Houdans.....	4 00
S. and G. Spangled Hamburgs.....	6 00
White Leghorns.....	4 00
Brown Leghorns.....	6 00
Golden Seabright Bantams.....	5 00
Bronze Turkeys.....	8 00
Rouen Ducks.....	10 00
Black Cayuga Ducks.....	4 00
Aylesbury Ducks.....	4 00

LOOK!

ALBERT E. BURBANK, Importer and Breeder of Fancy Fowls, Pigeons, Rabbits, etc. Also Eggs for hatching from the finest of imported stock. gg and Fowls at reduced prices. send for Price List.

ALBERT E. BURBANK, 1v8-3m 43 & 44 Cal. Market S.F.

\$5 to \$20

1st Day at home. Terms free. Address G. STINSON & Co., Portland, M.

Lands and Homes for Sale.

NEWARK LAND COMPANY.

San Francisco Bay, Alameda Co., Cal. Title Perfect. Incorporated.

The NEWARK LAND COMPANY is now assuming shape; the Guarantee Fund paid in. This Company will be prepared in March to take 3,000 people by steamboat and railroad to their town and lands in one excursion, which will be advertised. By reference to the Coast Survey Chart it will be seen that at Potrero Point, in front of Newark the deep water comes all the way through the channel from the Pacific, with the C. P. R. R. running in a direct line through Livermore Pass, making this the connecting point between all parts of the United States, and by deep water to all parts of the globe and the greatest manufacturing point on the Bay of San Francisco—plenty of water, good climate, excellent soil and easy communication. This land will be sold at auction in April, in acres and lots. This company will commence active operations in building, etc., soon. For all information, circulars maps and subscription, apply at the office of the company, 405 1/2 California street, basement, opposite Bank of California, San Francisco.

CHAS. R. PETERS, Manager.

FOR SALE OR RENT

On Favorable Terms.

Six Thousand Acres of Improved Tule Land in San Joaquin County. Apply to

STEVENS, BAKER & CO.,

N. W. Cor. Sacramento and Davis Streets, S. F.

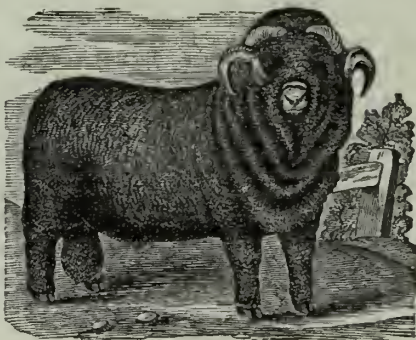
5,500 ACRES

Of the best portion of the old NOMELOCKE RESERVATION, in Tehama County, for sale very low; only five dollars per acre; one-third down, one-third in one year and one-third in two years, with interest at one per cent per month. Will be sold all together or in two parcels. This is one of the finest tracts of grazing land in Northern California; is abundantly watered by numerous perpetual springs and has two miles of the Elder Creek, a clear mountain stream. Its grass never falls from drouth, and is of the best quality for sheep and has no clover burr. 800 acres of level plow land; timber for posts, fuel, etc. Enquire of ALLEN WILCOX, Los Angeles, or F. B. WASHINGTON on the tract twenty miles west of Tehama.

FOR SALE

In the Riverside, New England and Santa Ana Colonies, in the valley of the Santa Ana river, San Bernardino county, California, twenty thousand (20,000) acres of clean, rich, level, valley land, with an abundance of water for irrigation. There is no better land in the State for the orange and all other semi-tropical fruits, and no finer climate in the world. Inquire of W. T. SAYWARD, 420 Montgomery street, San Francisco; S. C. EVANS, Fort Wayne, Indiana; C. I. HUTCHINSON, 314 California street, San Francisco; L. UPSON, General Agent, Riverside, San Bernardino county, Cal.

Live Stock Notices.



Pure Blooded French Merino Rams For sale by MRS. ROBERT BLACOW, of Centerville, Alameda County, Cal., near Niles Station, on the Western and Southern Pacific Railroad.

These Sheep are guaranteed of pure descent, from the French Imperial Flock at Rambouillet, and are equal, if not superior, to any of this breed in size and quality of wool, and are proved to be the heaviest shearers in the world.

The Imported Draft Stallion, ADOLPH,

Will make the Season of 1875 at the Stable Proprietor,

COR. FOURTEENTH AND MISSION STREETS, SAN JOSE.

COMMENCING MARCH 1st, AND CONTINUING FOR NINETY DAYS.

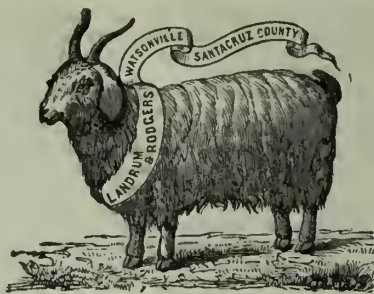
Adolph was imported from Belgium to Illinois in June, 1874, and to California in October last. He is a pure-bred Draft Horse, of the French "Farnham" stock, of a dark bay color, good life, kind disposition and fine movement for a horse of his size. In seven years old, 16 1/2 hands high, and weighs 1,550 pounds.

Terms, For the Season - - - \$25.00. Payable during the season in U. S. gold coin, or \$10 paid down and \$15 payable when mare is known to be with foal.

Mares from a distance can be kept on good pasture and cared for at \$4 per month. All accidents and escapes at the risk of the owner.

I have imported 12 head of the same stock of horses from Illinois, and invite examination and comparison with any stock of the class in the State. Four three-fourth blood stallion colts for sale. Can be seen on my farm, three and one-half miles east of the city.

L. V. WILLITS.



We respectfully invite the attention of wool growers to our fine stock of Cotswold Sheep and Angora Goats. We have 200 head of Pure Breed Angoras to select from; we have some of the finest Goats in America; we guarantee everything we sell to be as represented; our prices are as low as any in America for the same grade of stock. Call and see, or address,

LANDRUM & RODGERS,

13v7-cow-tf

Watsonville, Cal.



GABILAN HERD

Spanish Merino Sheep.

I have just purchased of Mr. George Hammond, of Vermont, three car-loads of Spanish Merino Sheep, (335 head, Ewes and Bucks) which, with others that I purchased last Fall, (also direct from Vermont) makes my band of Thoroughbred Spanish Merinos about 650 head.

I am prepared to sell both Bucks and Ewes, of Pure Blooded Spanish Merinos—as good as can be had in the World—so says Mr. Hammond. Parties interested will please give me a call. I am ten miles from Salinas City, Gabilan P. O., Monterey county.

J. D. CARR.

N. B.—I have also Good Graded Bucks for sale, and can dispose of some Good Graded Ewes. J. D. C.

Thoroughbred Spanish Merinos FOR SALE.

60 one and two-year old Thoroughbred Spanish Merino Rams, California bred, from Ewes imported from Vermont, and sired by Severance & Peet's Celebrated Ram "Tremont," and by their Ram "Green Mountain," which took the first premiums at the Bay District and State Fairs. Last shearing—35 1/2 lbs.—years' growth.

Also, about 100 Ewes and Lambs, all of "Green Mountain" Stock, bred this year.

B. F. WATKINS,

Santa Clara, Cal.

12 Short-Horn Bulls,

fat and sleek, thoroughbred, just from Kentucky, at SAXE'S Stables, 35 Ritch Street, between Folsom and Harrison, two blocks from Grand Hotel. Inquire at SAXE'S Stables, or Room 32 Rnss House. 3v9-3m

Commission Merchants.



H. K. CUMMINGS, 1858.

H. H. RALSTON, 1875.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commissioner House,

ESTABLISHED 1858.

No. 424 Battery street, southeast corner of Washington, San Francisco.

Our business being exclusively Commission, we have no interests that will conflict with those of the producer.

MOODY & FARISH,

Wool Commission Merchants,

No. 210 Davis Street, S. F.

Eureka Glycerine and Carbolic Sheep Dip; Sheep Shears; Wool Sacks and Twine constantly on hand at low prices.

Davis & Sutton, Commission Merchants.

For California Fruits; also for the sale of Butter, Eggs, Cheese, Honey, Green and Dried Fruits, etc., 75 Warren Street, New York. Refer to Anthony Halsey, Cashier, Tradesman's National Bank, N. Y.; Ellwanger & Barry, Rochester, N. Y.; C. W. Reed, Sacramento, Cal.; A. Lusk & Co., Pacific Fruit Market, San Francisco, Cal.

Banking.

Grangers' Bank of California

INCORPORATED APRIL 27th, 1874.

Capital \$5,000,000, in 50,000 Shares of \$100 each.

Directors:

PRESIDENT—JONATHAN V. WEBSTER..... Alameda Co.
V. PRESIDENT—C. J. CRESSEY..... Stanislaus County
THOMAS McCONNELL..... Sacramento
JOHN G. HILL..... Ventura County
J. V. WEBSTER..... Alameda County
JUSTICE C. MERRYFIELD..... Solano County
J. LEWELLIN..... Napa County
GILBERT W. COLBY..... Butte County
J. P. CHRISMAN..... Contra Costa County
F. J. WOODWARD..... San Joaquin County
C. S. ABBOTT..... Monterey County
F. A. CRESSEY..... Secretary.

Office, 415 California Street,

SAN FRANCISCO. - - CALIFORNIA

The Bank was opened on the first of August, 1874, for the transaction of ordinary Banking business.

Current Accounts are opened and conducted in the usual way, and interest at the rate of $\frac{1}{2}$ per cent per month is allowed on the minimum monthly balance. Deposit Receipts in sums of \$50 and upward received, and receipts given for the amounts, repayable on 30 days' notice of withdrawal. These deposits bear interest at rates varying with the current rate of discount.

Deposits for Fixed Periods are received, and interest allowed at the following rates: Three months, 6 per cent; Six months, 7 per cent; One year, 8 per cent. A share of the patronage of the public is solicited.

Anglo-Californian Bank.

LIMITED.

Successors to J. Seligman & Co.

London Office.....No. 3 Angel Court
San Francisco Office.....No. 412 California street.

Authorized Capital Stock, \$5,000,000,

Subscribed, \$3,000,000. Paid in, \$1,500,000.

Remainder subject to call.

DIRECTORS IN LONDON—Hon. Hugh Mculloch, Renben D. Sassoon, William F. Schofield, Isaac Seligman, Julius Sington.

MANAGERS:

F. F. LOW and IGNATZ STEINHART, SAN FRANCISCO.

The Bank is now prepared to open accounts, receive deposits, make collections, buy and sell Exchange, and issue Letters of Credit available throughout the world, and to loan money on proper securities. 2v27-cowbbp

Insurance Companies.

The Pacific Mutual Life Insurance Company of California.

No. 41 Second street, - - - Sacramento

ACCUMULATED FUND, NEARLY

\$1,250,000.00.

\$100,000 Approved Securities, deposited with the California State Department as security for Policy holders everywhere.

LELAND STANFORD.....President
J. H. CARROLL.....Vice-President
JOS. CRACKBON.....Secretary

All Policies issued by this Company, and the proceeds thereof, are exempt from execution by the laws of California. THE ONLY STATE IN THE UNION that provides for this exemption.

Policies issued by this Company are non-forfeitable, and all profits are divided among the insured. Policies may be made payable in Gold or Currency, as the applicant may elect, to pay his premium.

Executive Committee:

LELAND STANFORD, J. H. CARROLL, ROBT. HAMILTON, SAMUEL LAVENSON, JAS. CAROLAN.

SCHREIBER & HOWELL,

11-29-cow-bp-3m General Agents, Sacramento.

California Farmers Mutual Fire Insurance Association.

Office, 6 Leidesdorff St. - San Francisco.

Directors:

A. WOLF, A. W. THOMPSON, I. C. STEELE, I. G. GARDNER, J. C. MERRYFIELD, J. D. BLANCHAR, G. P. KELLOGG, Treas.

Finance Committee:

I. G. GARDNER, J. C. MERRYFIELD, A. W. THOMPSON

Trustees:

J. M. HAMILTON, Lake Col. C. STEELE, San Mateo Co
J. C. MERRYFIELD, Solano Co
A. B. NALLEY, Sonoma Co
G. W. COLBY, Butte Co
O. S. ABBOTT, Santa Barbara Co
H. B. JOLLEY, Merced Co
A. W. THOMPSON, Sonoma Co
A. WOLF, San Joaquin Co
E. W. STEELE, S. L. Ohispo Co
J. D. BLANCHAR, Pres't. W. H. BAXTER, Sec'y.

This association is organized for the purpose of affording the farmers of this State the means of safely insuring against loss by fire, at actual cost of insurance, without being connected with city risks. a222-tf

A REAL CONVENIENCE.—Dewey & Co: Please send me the Rural Press. It is a real convenience and I cannot do without it. Enclosed you will find five dollars. Fraternally. B. F. E. K. Anaheim, Cal., October 12, 1874.

Agricultural Articles.

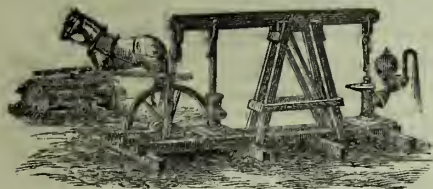
VINE AND FRUIT GROWERS,

TO RAISE LARGE CROPS

YOU MUST IRRIGATE.

To irrigate successfully, you must have the power that does not give out when the wind fails.

Laufkotter Bros. & Churchman's Horse-Power.



[PATENTED FEBRUARY 13TH, 1872.]

Never fails to supply more water than four or five Windmills, even supposing you had all the wind you want. It is also suitable for running light machinery, such as Barley Cracks, Corn Shellers, Fanning Mills, Grain Separators, or for Sawing Wood. They are never failing, cannot get out of order, easily worked, substantial, and always give satisfaction wherever they have been used. One horse can easily work two 6-inch pumps, with a continuous flow of water. Forces Pumps, from 3,000 to 10,000 gallons per hour. WINDMILLS of all kinds manufactured to order. Well-Bored, Windmills and Horse-Powers sent in any part of the State, and repairing of all kinds done. Manufactured and sold for sale by

LAUFKOTTER BROS.,

77-2m-3m Cor. J and 10th Sts., Sacramento.

KIMBALL CAR, CARRIAGE

—AND—

AGRICULTURAL IMPLEMENT

MANUFACTURING CO.,

Cor. Bryant and Fourth Sts., San Francisco

The CALIFORNIA TUBULAR IRON AND WOOD FRAME HARROW—two, four and six-horse Iron Harrows, \$60, \$70 and \$75. Wood Frame Harrow, \$10 less on each size than the Iron.

The Harrow has an easy seat for the Driver. The middle section rests on three wheels with wings hinged on each side.

By use of Levers the Driver in his seat can raise or lower the Harrow, regulating at will the depth of the teeth in the soil, and in the same manner fold or raise the wings from the ground so as to drive from the road to the field, saving the use of a wagon.

Our CALIFORNIA SCRAPER is also made for the ease of the Driver, enabling one person to ride, manage the team and do the work.

Is adapted for leveling and preparing the surface of the soil for irrigation. And for making roads, removing dirt from ditches, cleaning barn yards, sheep corals, etc.

The IMPROVED EAGLE HAY PRESS—Best in use on this Coast. Cheap, Economical, Powerful, and easily repaired.

Will press bales weighing from 250 to 325 pounds, using less rope than any other press.

Three men with a good team of horses will bale from 10 to 15 tons per day.

Adapted for baling wool, hides, cotton, rags or moss. Price, \$250. Weight of press, 2,500 pounds. Please send for circulars.

Attention, Farmers!

WE DESIRE TO CALL ATTENTION TO OUR

NEW AND IMPROVED

PATENT SICKLE BAR,

Designed and Improved especially for the Haines Header. The particularly meritorious points in which we claim that our patent surpasses all others, are these: Our Bar is manufactured of iron, and hence is more durable and compact than bulky and unweildy wooden bars. The old style wooden bars are seven inches deep. Our Bar is but three inches deep, thus enabling us to cut four inches lower, and save much grain that the wooden bar cannot reach. On the wooden bar it is four inches from the sickle to the draper. On our patent it is but one and a half inches, thus securing many heads that never reach the draper on the old style, and effecting a saving of many times the price of the bar, in one season.

It is the Safest, Most Durable, Simple and Economical Bar now in use. PRICE, \$35.00.

Address,

J. O. JOHNSON & BRO.

Dixon, Cal.

C. CREGO.

S. O. BOWLEY.

CREGO & BOWLEY,

Importers and Manufacturers

—OF—

CARRIAGES and WAGONS,

No. 9 Merchant's Exchange,

CALIFORNIA STREET.....SAN FRANCISCO

Keep constantly on hand top and open Buggies, top and open Rockaways, Jump-seat Buggies, Truck and Road Buggies, Skeleton Wagons, Basket Phaetons of the very latest styles and finest workmanship.

We would call particular attention to our fine stock of light Road and Trotting Wagons, made to order by the following celebrated makers:

Charles S. Coffey, Camden, New Jersey; Helfield & Jackson, Rahway, New Jersey; Gregg & Bow, Wilmington, Delaware; And the first-class makers, which we are prepared to sell on the most reasonable terms.

Also, a large assortment of single and double Harness, of the most celebrated makers: O. Graham, New York; J. R. Hill, Concord; Pittkin & Thomas, Philadelphia.

Also, a full assortment of Dress and Light Blankets, Fur and Lap Robes, Whips, Halters, Surcigles, etc., at wholesale and retail.

OREGO & BOWLEY,

No. 9 Merchant's Exchange, California street, 2475-3m San Francisco.

MATTESON & WILLIAMSON'S

AMERICAN CHIEF



GANG PLOW.

Took the Premium over all at the great Plowing match in Stockton, in 1870.

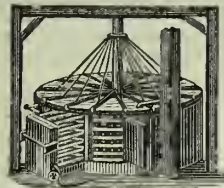
This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in this world. Send for circular to

4v2-3m

MATTESON & WILLIAMSON, Stockton, Cal.

Plummer's California Fruit Drier.

PATENTED DECEMBER 29TH, 1874.



This is the 'Cheapest and Most Economical. Largest Capacity, and Most Speedy DRIER, and gives the fruit a better flavor than any other machine ever invented. It only requires a shed to work under; 2d—has boiler, engine, and steam-pump for irrigating or other purposes, in connection with the Drier or separately; 3d—the cost is one-half less than any other of the same capacity, and there is no danger of burning the fruit. A sample machine is in full operation at our factory, No. 31 BEALE ST. Address, SPAULDING & BRO., San Francisco, Cal.

Send for Circulars.

ECLIPSE WINDMILLS.



Cheapest, Strongest, Best. Eight years experience. Mills 10 feet to 60 feet in diameter—every mill warranted. Send for illustrated circulars.

CHAS. P. HOAG, General Agent,

18 Fremont Street, San Francisco.

THE CHEAPEST IRRIGATOR KNOWN.

Farmers and Threshers

WISHING TO HAVE

Straw Burning Engines

For next season must engage them soon, as most of those now building are already sold. Threshing Engines for Repairs should be sent in now. A number of Second-hand Engines—taken in exchange for "Straw Burners"—for sale cheap. For particulars and prices, address: H. W. RICE, 23v8-3m Haywood, Alameda County.

PUMPS SLUTHOUR PUMPS

Are sold 50 per cent. under any other in the market, considering the amount of water obtained for the power applied. They have now been fully tested for IRRIGATION, and entire satisfaction is guaranteed. Call and see them, or send for Circulars.

J. M. KEELER & CO., Agents, 306 California Street, San Francisco.

ENRIGHT'S

Portable Strawburning Engines

Burns either Straw, Wood or Coal, Manufactured and sold by JOSEPH ENRIGHT, San Jose.

Averill Chemical Paint,

MANUFACTURED BY THE

Cal. Chemical Paint Co.

PURE WHITE, AND ANY SHADE OR COLOR.

This Paint is prepared in liquid form, READY FOR APPLICATION—requiring no thinner or dryer, and will not spoil by standing any length of time.

It is Cheaper, more durable, more Elastic, and produces a more Beautiful Finish than the best of any other Paint.

It will not Fade, Chalk, Crack, or Peel off, and will last twice as long as any other Paint.

In ordering White, state whether for Outside or Inside use, as we manufacture an Inside White (Flat) for inside use, which will not turn yellow, and produces a finish superior to any other White known.

Put up in 1/2, 1, 2 and 5 gallon packages, and in Barrels. Sold by the following:

For further information send for Sample Card and Price List, or apply to the office.

OFFICE and DEPOT: 117 Pine Street, near Front. Cor. 4th & Townsend Sts. 3v9-cow-bp-ly SAN FRANCISCO, CAL.

Hooper's South End Grain Warehouse

Japan and Townsend Streets.

SAN FRANCISCO, July, 1874.

I beg to inform you I have leased the above first-class Fire-Proof Brick Warehouse, now being erected by Geo. F. Hooper, Esq., and will be ready to receive storage on the 1st of August. This warehouse offers superior inducements to parties desiring to store grain and flour, as it is situated on the Front, and on the line of the O. P. R. R. and S. P. R. R. It is well ventilated, rat proof, and combines all the modern advantages and improvements. Yours respectfully, JOHN JENNINGS.

Advances and insurance effected at the lowest rates. Storage taken at lowest current rates. 4v8-ft

How To Paint

A New Work by a Practical Painter, designed for the use of Tradesmen, Mechanics, Merchants, Farmers, and as a Guide to Professional Painters. Containing a Plain Common-Sense Statement of the Methods employed by Painters to produce satisfactory results in Plain and Fancy Painting of every description, including Formulas for Mixing Paint in Oil or Water, Tools required, etc. This is just the Book needed by any person having anything to paint, and makes

"Every Man His Own Painter."

Full Directions for Using White Lead—Lamp-Black—Green—Yellow—Brown—Whiting—Glue—Pumice Stone—Spirits of Turpentine—Oils—Varnishes—Furniture Varnish—Milk Paint—Preparing Kalsomine, etc.

Paint for Outbuildings

—Whitewash—Paste for Paper-Hanging—Hanging Paper—Graining in Oak, Maple, Rosewood, Black Walnut—Staining—Decalcomania—Making Rustic Pictures—Painting Flower-Stands—Rosewood Polish—Varnishing Furniture—Waxing Furniture—Cleaning Paint—

Paint for Farming Tools

—for Machinery—Household Fixtures, etc.

To Paint a Farm Wagon

—to Re-Varnish a Carriage—to make Plaster Casts. The work is neatly printed, with illustrations wherever they can serve to make the subject plainer, and it will save many times its cost yearly. Every family should possess a copy. Price by mail, post-paid, \$1. Address

DEWEY & CO.,

San Francisco, Cal.

Publishers of this journal.

LAND PLASTER.

(Sulphate of Lime.)

This fertilizer is especially well adapted to California lands and climate, and is destined to be used to immense advantage.

PRICES GREATLY REDUCED.

In bulk, \$10 per ton; in barrels or bags, \$12.50.

Golden Gate Plaster Mills.

LUCAS GESNER & CO.,

215 and 217 MAIN STREET, SAN FRANCISCO.

J. M. NEVILLE.

G. H. BRYANT

NEVILLE & CO'S FACTORY

113 Clay and 114 Commercial Sts.,

SAN FRANCISCO.

BAGS of All Kinds,

TENTS, All Sizes and Descriptions.

HOSE for Hydraulic Use.

CANVAS, All Numbers.

TWINE for Sewing, Etc.

FARM HANDS.

The Grangers' Scandinavian American Employment Office

Has been removed from 6 Liedesdorff to 608 Clay street, and Consolidated with the Pacific Coast Employment Office. This office is in constant communication with Grange Headquarters, and is the only one in the city conducted by members of the Order. Our facilities for furnishing MALE and FEMALE help of all kinds are unexcelled by any office in the city. Great care taken to select reliable help. Chinese Orders for Servants, in door and out, promptly filled.

In ordering help, be particular in describing work, wages, fare, etc., Real Estate and General Business Agency.

PHILIPS & FLIGGLE.

THE Employment Office of Talbot & Co. has no connection whatever with the Granges.

I. G. GARDNER.

J. & P. N. HANNA,

IMPORTERS AND DEALERS IN

Grain, Wool, Ore and Bean Bags. Flax, Cotton and Linen Twines.

COTTON, DUCK, RAVENS AND DRILLS—33, 36, 40 42 and 45-inch Wide Duck; 8, 10, 12 and 15-Ounce Duck.

Ore Bags, Tents and Hose

MADE TO ORDER.

Nos. 308 and 310 DAVIS ST.,

San Francisco, Cal.

Allen's Planet Jr. Silver Medal

HAND DRILLS and WHEEL HOES. THREE NEW styles. They "saw like a chain," and hoe better, easier, and six times faster than the hand hoe. S. L. ALLEN & CO., Mfgs. 119 S. 4th St., Phila., Pa. Circulars free. A LIVE AGENT WANTED in every town.



WAKELEE'S

Squirrel Exterminator.

The Best and Cheapest Poison for the Speedy Destruction of Squirrels, Rats and Mice.

H. P. Wakelee, Druggist, San Francisco.

This POISON is now well known throughout many of the counties of this State, and has given complete satisfaction.

WAKELEE'S SQUIRREL EXTERMINATOR saves time by being fully prepared for use, will not deteriorate by age, prevents loss of both time and money in preventing the distribution of inefficient mixtures. Compared with all other poisons is least liable to cause accident to man and the domestic animals; it's of smaller bulk, and therefore more convenient to handle in the field.

That Wakelee's Squirrel Exterminator is the Best and most economical Poison, hundreds of farmers will cheerfully bear testimony. The following is what several consumers—well known citizens and farmers think of it:

[From General H. M. Naglee, San Jose.]

Messrs. RHODES & LEWIS, Druggists, San Jose:

At your request, I would state that Wakelee's Squirrel Poison is fully prepared for use, slaughters the squirrels in the most satisfactory manner, and is superior to anything heretofore used by me.

HENRY M. NAGLEE.

[From the Squirrel Inspector, San Lorenzo District, Alameda County.]

H. P. WAKELEE:

Dear Sir:—I have used your Squirrel Exterminator in this district, and find that it fully comes up to its recommendation, and is the most efficient poison yet used by me.

GEORGE HYDE, Squirrel Inspector, San Lorenzo School District.

[From John T. Ward, Esq., Napa.]

H. P. WAKELEE, Esq.:

Dear Sir:—We have given your Squirrel Exterminator a thorough trial, and are perfectly satisfied with its workings. It is a dead shot; fifteen kernels at each squirrel hole will kill almost every squirrel, and after filling up the holes, few are found re-opened.

We poisoned one field, which was badly infested; to secure the scalps, we placed the poison two feet from the holes. In almost every instance it killed before the squirrel could get back to the hole. In that field we found blackbirds and meadow-larks dead from its effects, and dogs and cats which ate the dead squirrels were also killed. So completely was the field rid of the vermin, that the grain stood thickest about the stumps and trees, where always before the squirrels had destroyed the seed.

I can recommend your Exterminator to all who are troubled with squirrels. It does all you claim for it, and is the most effective poison I ever used.

Perhaps the best recommendation I can give it is, that after one season's trial, I am so well satisfied with it that I shall use it in larger quantities this season.

Very truly yours, JOHN T. WARD.

[From well known farmers of San Luis Obispo County, El Paso de Robles Springs.]

H. P. WAKELEE:

Dear Sir:—In reply to your note, we would state that after having given your Squirrel Exterminator a thorough trial, we can unhesitatingly pronounce it the most efficacious and destructive agent we have ever employed against squirrels.

We have used strychnine and phosphorus, and can confidently state that as to their merits, compared with those of your Exterminator, either as regards cheapness or destructibility, the odds are greatly in favor of the Exterminator. Many of our neighbors are using it, and with the most satisfactory results.

The squirrels, many of them, die before they can get to their holes, and fields which a few weeks ago swarmed with the pests, are now comparatively free.

Respectfully yours,

W. D. ILLINGWORTH, C. D. MOREHOUSE, W. T. JOHNSON.

[What the farmers of Watsonville, Santa Cruz County, think of "Wakelee's Squirrel Exterminator."]

H. P. WAKELEE:

Dear Sir:—This is to certify that we have bought and used your preparation for poisoning squirrels, or what you call the Squirrel Exterminator, and have found it the best of anything we ever used.

Respectfully yours,

H. C. STRUVE, DANIEL MCCUSKEY, CHRISTIAN KORM, JAMES STRUVE, W. WILLIAMS, M. A. DRAW, L. HELLMER.

* * * * "All who have tried it speak highly of its merits."

SANDERSON & DUNN,

Commission Merchants, El Paso de Robles Springs.

* * * * "The lot ordered was duly received and was a great success."

WARD BROTHERS, Napa.

* * * * "You can use my name to recommend it most highly."

CAPTAIN C. P. LOW, Santa Barbara.

* * * * "It is all that you recommend it to be. If the farmers will all use it, they will have no further trouble from squirrels."

C. W. McKELVEY, Porterville, Tulare County.

H. P. WAKELEE, Druggist,

Importer of Foreign and Domestic

DRUGS AND CHEMICALS.

Agent and Manager Golden City Chemical

Works,

Cor. MONTGOMERY AND BUSH STREETS, S. F.

EMPLOYMENT.

I want 1,000 agents to canvass for the COMPLETE HERBALIST, and THE GROWING WORLD. I will give such terms and furnish such advertising facilities that no man need make less than \$500 per month and all expenses—no matter whether he ever canvassed before or not. Address Dr. O. PHELPS BROWN, No 21 Grand street, Jersey City, N. J., and full particulars will be sent by return mail.

Continued from Page 241.

True Artichoke, *Cynara Scolymus*, is a native of Southern Europe. In this case, instead of eating any tubers, we eat small, undeveloped flower scales, grown somewhat here and brought into the markets. Jerusalem artichoke looks like wild sunflower, has every appearance of it. In fact, it is found more or less running wild all over the eastern part of the United States.

Salsify, or, as it is sometimes termed, vegetable oyster, *Trago pogon porrifolium*, is a native of Europe, grown for its roots, which are about as thick as this chalk pencil, growing six, to eight or ten inches in length. They are cut in each fall, and are used somewhat as ingredients in soup. It is worth growing, I think, in every place.

Lettuce, *Lactuca sativa*, is probably a native of Central Asia. It has been grown so long that it is now grown in every place. Evasive, belonging to the East Indies, called botanically *Cichorium endivia*, is also another plant quite considerably grown for salad. Chicory, *Cichorium intybus*, a native of Europe, is grown throughout almost all portions of the United States for its roots. These are powdered, dried, and mixed with coffee. It is supposed to give it a little better taste. I think, however, for most people, the testimony is it does not improve it very much. Dandelion roots and wormwood are valuable medicines, used largely, and arnica, used as a tincture, is found very valuable in serious wounds. These three, dandelion, wormwood and arnica, are almost all of the ordinary herbs in good repute mentioned in the dispensatory, while chismomile, feverfew, elecampene, southern wood, and many others are what might be called domestic remedies. In the dispensaries you will find that they are not admitted as first-class medicines.

On the plains and in the Rocky mountain region several species of *Artemisia* furnish a large portion of the fuel. This *artemisia* sometimes grows up some three feet high or so, mostly smaller, and they call it sagebrush. It is not the sage, by any means, but it is very closely related to wormwood, having nearly the same properties.

There are other forms, all used more or less, however, for fuel. [A student asks "What particular variety of *artemisia* is it that furnishes food for animals?" That certainly cannot be a true sage. Is it bitter? [Student.—"It is bitter until the frost." It is probably just one of these common species, one of these white ones. One kind is very white occasionally; sometimes more or less green. It grows east as far as the Missouri river, and I suppose, westward as far as the Sierra Nevada.

Among the ornamental plants, and there are many of them, are chrysanthemums, dahlia, sunflowers, zinnias, marigolds, and a great many others. Now, this order is peculiarly adapted to improvement. You take any one of the wild composites, and it is a very easy matter to change its form so as to double it, so as to make a quite ornamental plant of it, so that the flower will be quite attractive. The effect of cultivation may be seen in these sisters, daisies and chrysanthemums. Will dock is one; cultivation will double it. Now, this doubling is only changing the little double flowers of the great composite whole into the long, ligulate, or strap-shaped ones. Examine the next dahlia you see; you will find that the only change is as stated. There is no change, really, in the structure. Instead of the little flowerlet having that general form, it is split down on one side, considerably elongated, and has taken on a form like that. It is simply a very slight change in the corolla that brings about the result.

The whole order seems to have a very great tendency to become weedy. There is hardly a plant in the whole order but that has a tendency to become weedy, if it has a chance; so that out of the 150 species which may probably be found in California, undoubtedly one hundred may be found as weeds.

The Worst Weeds are Imported.

Thistle, cocklebur, rag-weed, bitter-wood, ox-eye daisy, may weed, beggar-tick, and dandelion are the most important of the weedy growths belonging to this order. Ox-eye daisy, or white-weed, [Fig. 1.] grows East. I don't know whether it is found here or not. It has white flowers about an inch and a half across. [A student thinks it has been seen here]. It has a thin stalk, and grows always in very little bunches. I suppose the seed falls on the ground near it, so the plant will multiply both by its underground stems and by its seeds. It sends out little underground stems, so that a small plant is very soon a big one, and is quite troublesome to deal with.

One plant in the order is very peculiar. Growing all through the prairie regions of Iowa and Illinois we find what is called the compass-plant. It is in general appearance like the sunflower. It sends up from the ground a number of great radical leaves, and after awhile it sends up its flower-stem. Now, these leaves have the property of standing in the meridian. Why it is, or how it is, there does not anybody know.

The general shape of the leaf is very greatly lobated, reminding you of an enormous calyx. Now, that leaf stands almost always in that direction, so that one edge of it is to the north and the other to the south. You go to any of these plants—I have done so hundreds and hundreds of times—and you will find all the leaves, except some two or three, apparently twisted around, though growing on every side. They twist around to the meridian. This

peculiarity of the plant is made use of by the inhabitants quite frequently to find their direction. If you stand north or south of the plant and look towards it, you will see only the edges of the leaves; while viewing it from the west or east side, you will see those great, broad leaves standing out. Several years ago Dr. Gray attempted to explain it. It was suggested that a careful examination would probably reveal the fact that there were nearly the same number of stomates to be found on each side. Examination was made—the stomates were about equal. But the difficulty is, while that might account for the leaf trying to deal justly with its two sides, it will not account for this fact, which is very well established; that there are a great many other plants closely allied, the leaves of which do not turn in this way. So that, after all, Dr. Gray's suggestion did not account for the whole thing. You can not tell by these leaves any more about which way is north and which south than you can with your compass, if both ends of the needle are shaped alike. Of course you cannot tell which is which. I have seen this, where for some reason the leaf apparently wished to twist around where it had twisted.

More than Once Around,

Or over 360 degrees.

It is quite common for them to twist 160 to 180 degrees. All that grow in a certain position must twist around that far at any rate, ninety degrees.

The next is the *Msd* for family, *Rubiaceae*, herbs, shrubs and trees, numbering nearly 3,000 species, mostly confined to the hotter portions of the globe. There are no timber trees which are of special value. There are some of local value. The order derives its importance from the fact that it furnishes

Coffee, Quinine, Ipecacuanha and Madder,

Four of the most important vegetable products. The coffee tree is called *Coffea Arabica*. It was called *Arabica* because supposed at that time to be a native of Arabia. It is now found native in Abyssinia. It is a much branched tree, growing to the height of twenty feet. The flower has a fragrance a good deal like the orange and the tree yields red berries as big as an ordinary cherry. Each berry has inside of it two seeds, which are the coffee seeds. (See Fig. 2.) These seeds always lie with their sides or faces approximating.

Examine a grain of coffee; cut it down carefully and you will find a little embryo, a very minute one, indeed. It will be necessary, perhaps, to boil the kernel before you can do this conveniently. It is of comparatively recent use, some accounts placing its introduction into Arabia somewhere in the fifteenth century; so it was about the time tobacco, potatoes and Indian corn were brought into notice. About 1560 it was first brought to London, long after they had been chewing tobacco. It was quite a good while before it came into general use. Now it is cultivated in the West Indies and considerably in South America, also in the East Indies. All these differences in locality have brought about differences in the coffee; but it is that we get from Arabia which is the best, occasionally to be found in the markets under the name of Mocha coffee. So, if you want to get the finest, highest priced, best tasting, buy Mocha. Java stands next, produced in the East Indies, largely upon the island of Java and usually it is next in price also.

The Rio coffee comes from the West Indies, South America, and a little of it comes from the extreme southern part of Hindostan.

Down in that part of Asia they grow it, and it is found to be the same quality and same grade as the Rio, so it is classed with it. It is the greenest and poorest. Now, it is found that if the very poorest coffee is kept for a long time in close boxes or chests, it is improved. If ordinary Rio is

Kept Ten to Fifteen Years,

It is found that in that time it will be fully equal to the best Mocha. The difference seems to be partly due to climate and largely due to the way in which it is preserved or prepared; the two go together somewhat. The West Indies and South America are not favorable to the long ripening which it should undergo. In Java the climate is such that it ripens more slowly, while in Arabia the ripening is slower still. This is something parallel exactly with the ripening of the grape. In both cases we find the same thing—long ripening favors a higher development.

The second important plant is the *Cinchona*. There are several of the trees growing in the mountainous regions of Peru, Bolivia and New Grenada, and generally throughout the western part of South America. They all belong to this genus *Cinchona*. Of species belonging to this genus are *C. officinalis*, *C. calisaya*, *C. micrantha* and others. From a number of these species is obtained all the Peruvian bark and Jesuit's bark. From this Peruvian bark we get, by manufacture, the quinine, which is really, I think, a chemical; I think it is a sulphate of the alkaloid or alkaline principle. It is used very largely now all over the world. This *Cinchona* was first made known under the name of Peruvian bark about 1640. Some of the Jesuits happened to be traveling in South America and made the discovery that it was valuable for fevers. They introduced it into Europe, and there is now a great demand for it. For a time there was a great danger that it would become extinct, so the English Government took steps to make plantations of it. There are now fine plantations in the islands of the West Indies, also in the East Indies.

Ipecacuanha, a very strong and safe emetic, is derived from *Cephaelis Ipecacuanha*, a small plant growing in Brazil. The root of this is taken, powdered and manufactured. It is perhaps one of the most generally used of all the emetics that are in general practice.

Madder is derived from *Rubia tinctoria*, which is a perennial, herbaceous in its growth, a native of the Mediterranean region. It is grown for its roots. The roots bear tubers which resemble those of the dahlia, but not quite as large, by any means.

They have a remarkably great amount of coloring matter in them. The roots are powdered and the coloring matter extracted. It is cheap, quite durable and very largely used in the red colors of calico and other cheap fabrics. It is grown largely in the United States throughout Southern Ohio, Indiana, Illinois and the adjacent regions, considerably also in Kentucky. If not already introduced into this State, it can be added as one of the industries.

The Parsley family, *Umbelliferae*. It might be called the humble family, because of the humble-looking inflorescence. It is quite extensive, including fifteen to sixteen hundred species, mostly herbaceous, although in the south temperate zone a few shrubby ones are found, and in one or two cases tree-like forms are known.

The order is mostly found in the north temperate zone. There are three distinct principles or properties to be found in the order, sometimes in the same plant. First, an acrid, poisonous principle which is usually very abundant in the stems and leaves, so that these parts of the plant are generally to be avoided; an aromatic, wholesome principle is found in the roots, or seeds as we call them. You will understand that it has a form of fruiting, dottle, usually known as seeds; they are really two fruits. The third principle is a milky, resinous one. This is found usually in the roots, although it is found occasionally in the stem and other parts of the plant. A few of the plants are somewhat important. First, the parsley, *Pastinaca sativa*, a native of Europe. In this case we eat the roots. If the plants have been well grown, grown rapidly, have not been made poisonous by too much sunlight, too much heat, they are quite palatable. The Carrot, *Daucus carota*, also of Europe, is used for the same purpose. Both of these, if allowed to run wild,

Deteriorate and Become Poisonous.

Cultivation takes out the poisonous principle, and one may grow very good parsnips which will have no poison in them.

Celery, *Apium graveolens*, is a native of Europe, very well known. In this case, as is very well known, we eat the stems. Take the green stems and they are poisonous, but when this poisonous matter has been driven out by keeping the stems away from the sunlight for some time, they are quite wholesome. They grow it first, allowing it to be a foot high, and then throw earth, sometimes straw, sometimes boards around it—usually boards—so that the stem is kept away from the light. Whenever perfectly white, they are wholesome. Whenever acrid, and I find some such are in the market here, you should throw them away; don't eat them.

Parsley, termed *Apium petroselinum*, is a native of Southern Europe, and is grown as a pot-herb. Some mix it up with their food. Now, in connection with all these, parsley, parsnip, carrot and celery, you must remember you are

Dealing with Poisonous Plants.

Among the aromatic plants we find caraway, coriander, dill, cumin, anise, fennel, etc. Of course they are harmless.

We get a few gums, first sassafras, from the *Northez asafetida*, a tall plant, native of Southern and Western Asia, and is grown there.

The Russell End-Shake Thresher.

Read what Farmers and Threshers Think of it.

SAN FRANCISCO, March 24th, 1874.

Messrs. TREADWELL & Co., San Francisco—Gents: Your favor of the 20th inst. rec'd., and contents noted. In reply I have to state, that the Hoadley Engine, with the Russell's Separator, and the improvements that you have made thereon, particularly the attachment of the Laufenburg Patent End Shake Shoe, meets with a hearty approval wherever used. The Laufenburg Shoe has been in use six years with signal success. As you are informed, I have had a personal experience and find that on an average I can thresh and clean the grain better and one-third faster than with the old side shake. I have averaged over two thousand bushels per day for six consecutive days, and threshed thirty-five hundred bushels in one day, twelve hours' work. There have been a number of trials to compete with your house by introducing an end shake shoe on other machines. Yet they are complete failures. The peculiar motion of the knives, moving in opposite directions, seems to be the point. It was a happy thought or blunder of the inventor, which twenty-five years of trials and experiment had failed to achieve. You need have no hesitation in recommending the Laufenburg shoe, as the only one that has proved a success. Truly yours, J. C. HOAG.

WOULD HAVE NO OTHER.

SAN PABLO, Cal., October 23d, 1874.

Messrs. TREADWELL & Co., San Francisco—Gents: The 33-inch Russell's Separator, with Laufenburg Patent End Shake, which I purchased from you this season, gave entire satisfaction to the farmers for whom I threshed as well as myself—and for beauty of design it cannot be surpassed by any machine on the Coast. It threshed the grain clean, without cracking, and cleaned without cracking, and cleans it ready for market as it comes from the spout. I would have no other Separator than a Russell's Improved, with end shake shoe. I have threshed 800 sacks in one day, moved and set twice. Was at no expense for repairs during the whole season. Yours respectfully, JOHN DAVIS.



This is a Sure Cure for Screw Worm, Scab and Foot Rot in Sheep. It also kills Ticks, Lice, and all Parasites that infest Sheep.

Prevents scratching and greatly improves the quality of the wool. One gallon of the Dip properly diluted with water will be sufficient to dip one hundred sheep, so that the cost of dipping is a mere trifle, and sheep owners will find that they are amply repaid by the improved health of their flocks.

This Dip is guaranteed to cure when used according to directions, and to be vastly superior to Corrosive Sublimate, Sulphur, Tobacco, and other remedies which have heretofore been used by farmers.

Circulars sent, post paid, upon application, giving full directions for its use, also certificates of prominent sheep growers who have used large quantities of the Dip, and pronounce it the most effective and reliable known Cure and Preventive of Scab and other kindred diseases in Sheep. nr13-bp

AMMONIA!

For Washing and Cleaning Purposes.

For Sale by all Grocers.

This article is universally used in Europe, and, recently introduced for general family use in San Francisco and neighborhood, is already in great demand. It is now the intention of the manufacturers to introduce it all over the Pacific Coast, at prices which will bring it within the reach of every household.

It is unequalled for cleaning Woolen Fabric, Cutlery, Carpets or Crockery; for Scrubbing Floors, Washing Paint, Removing Grease Spots, Shampooing or Bathing.

It renders water soft, and imparts a delightful sense of coolness after washing.

DIRECTIONS.—For Laundry, use two to four table-spoonfuls to a wash-tub of water. For bathing, use one table-spoonful in the bath tub. For removing grease spots, apply with a brush, undiluted, and wash with water afterward. For stimulating the growth of plants, use a few drops in every pint of water used in watering.

PRICE.—Per Pint Bottle, 25 cents; per quart Quart Bottle, 40 cents; per Half Gallon, 75 cents. Also, SULPHATE OF AMMONIA for chemical purpose, fertilizing, and the preparation of artificial manures. AMMONIACAL PREPARATION for the prevention and removal of boiler scale. CRUDE AMMONIA, for general manufacturing, and PUR-LIQUOR and AQUA AMMONIA for chemical and pharmaceutical purposes. Manufactured by the

SAN FRANCISCO GAS-LIGHT CO.

cowbp

For Bleaching or Washing In Cold or Warm Water.

FALKINBURGH & CO'S

GRANGER SOAP

HAS NO EQUAL.

Don't fail to give it a trial, and be assured of a saving of money, time and labor. It speaks for itself. Warranted to accomplish more and do greater execution than any other soap. It is pressed, wrapped and perfumed.

ONCE USED, ALWAYS USED.

Sold by the principal Grocers throughout the country. Manufactured by

FALKINBURGH & CO.,

Oregon St., below Front, bet. Washington and Jackson, San Francisco, Cal. 4v9-10p

THE ALDEN

Fruit Preserving Company OF CALIFORNIA.

Is now prepared to sell rights and furnish the necessary machinery for using the "ALDEN PROCESS," acknowledged to be the best method known for preserving Fruits, Vegetables, Meats, etc.

For full particulars call at the company's

Office, 426 Montgomery St., S. F.

G. W. DEITZLER, President.

W. M. WHEERRY, Vice President.

FRANK PYLE, Sec'y and Sup't.

BANK OF CALIFORNIA, Treasurer.

11v7-5m

LOCKE & MONTAGUE,

IMPORTERS OF

Stoves, Ranges,

Tin Plate, Sheet Iron, Iron Pipe,

House Furnishing Hardware,

Plain Japanned,

Planished and Stamped

TIN WARE,

112 and 114 Battery Street,

SAN FRANCISCO.

12p

S. F. MARKET REPORT.

Weekly Market Review.

DOMESTIC PRODUCE.

SAN FRANCISCO, April 7, 1875.

With a rainfall smaller than that of any year since 1871, we are promised the largest crops ever yet harvested in the State. The rainfall for the harvest year actually falls short of that of 1873, when the crops gave but two-thirds of their usual yield, and 5.22 inches short of that of last year. The figures for the past four years, from July 1st to March 31st, are:

1875..... 17.26 inches
1874..... 22.52 "
1873..... 17.41 "
1872..... 33.43 "

The explanation of this apparent anomaly is to be found in the fact that the rain this year seemed to fall just in the nick of time. And having good crops, the next consideration is to obtain at moderate rates a sufficiently large fleet of vessels to carry them away. The number that may be required cannot, as yet, be told; as while the amount of the new crop may not as yet be exactly ascertained, the surplus still remaining in the State, from the harvest years of 1873-74, is still a matter of doubt. With a view, no doubt, to bull the market in favor of a certain speculator, it has been set forth that the surplus still remaining is much smaller than was imagined, and that most of it is firmly held by one operator. But statements of this kind should deceive no one. With the surplus from the past year there will not be less than 18,000,000 nor more than 22,000,000 cents; requiring from 600 to 733 vessels to carry it away. This is an immense fleet, and now is the time for the farmers to secure vessels at reasonable terms for the coming year. If they delay action till the beginning of the harvest year, speculators in tonnage will charge them what they please.

The Wheat market in England has advanced, even though the Associated Press gives us no information on the matter. The following, from the *Mark Lane Express*, of the 3d inst., is telegraphed: "Spring planting has been effectually completed both here and on the continent. The condition of newly threshed wheat continues improved, and in spite of the holiday dullness prices have advanced a shilling generally." This is satisfactory, more especially when it is remembered that there has been a constant previous advance since March, amounting, as telegraphed, to 8c per cental.

There being no change of importance in the Retail Market rates we have omitted our usual quotations.

Corn—Receipts since our last, 1,770 centals. Total since April 1st, 1,770 centals. The market is firmer and we quote White, \$1.50@1.55; Yellow, \$1.40@1.45. Sales of 125 sacks small Yellow, at \$1.40 and 100 do, at \$1.42.

Commeal—We quote Table at 25c@3c, and Feed at 33c@35c.

Feed—Receipts since our last: Bran, 6,955 sks; Middlings, 480 sks. Total since April 1st: Bran, 4,335 sks; Middlings, 140 sks. The market is quiet at \$1.50@1.55, and Middlings, 25c@27.50. The range is not according to quality, but is representative of the prices at which different mills sell. Oil Cake meal is quotable at 30c.

Flour—Receipts since our last: 33,061 qr sks, including 10,539 qr sks of Oregon per Orlanum and Webfoot. Receipts since Jan. 1st have been as follows:

January..... 189,763
February..... 291,743
March..... 207,811
April (to date)..... 25,353

Total..... 604,673

Fruit—Receipts since our last: 1,641 bxs of Apples; 113 bxs and 269 pkgs of Dried Fruit, 1 cs Pears, 1,414 bxs of Oranges, 89 do of Lemons, 161 bxs of Limes, 16 do of Mangoes, and 1 do of Pineapples. Good Apples are scarce, but the supply of Oregon, which are only of indifferent quality, is large. There is considerable supply of Oregon Pears in the market. Strawberries are in better supply, and are quotable at 30c@50c by the do. The only oranges in the market are the Los Angeles, which are getting scarce. A cargo of Sweet from Tahiti, 300,000, is about due on the market. There are enough Lemons and Mangoes to supply the demand, but the quality is poor. There is a fair supply of Bananas, Limes and Pine Apples.

Game—Is very scarce, but there are few changes in quotations; except in Wild Geese, which command \$3@4. Hay—Receipts since our last, 761 tons. Total since April 1st, 671 tons. The market has advanced and may be given at 11c@11. Much of the Hay coming in is very poor and is not wanted. Good quality commands 15c@18.

Straw—Receipts since our last, 19 tons. Total since April 1st, 19 tons. There is a wider range to the market, which may be given at 60c@65c.

Hides—Receipts since our last, 2,484. The market for Dry is still further depressed, and cannot be given over 17c@18c. Wet Salted are quotable at 8c@9c. The Mocha brought from Mexican Ports, 232. Sales of 2,000 at current rates. Shipments of one case East by rail.

Honey—Receipts since our last, 25 cs and 1 ex. The market is well supplied, especially with the more common descriptions. Demand is almost entirely local, and quotations have undergone no change. We give California Southern 18c@22c; Light Striped, 8c@9c; Dark Candied, 5c@6c; Northern 2c@3c, 3c@4c.

Hops—Receipts since Jan. 1st, 281 bbls. California are quotable at 30c@32c, with no movement in the market.

Nuts—Are unchanged in price. Cocconuts still continue at the advanced rates.

Oils—Receipts since our last, 3,377 cts, including 3,121 cts Oregon and Washington Territory. Total since April 1st, 3,377 cts. California are almost out of the market, there being little arriving and none in stock here. There are very few Oregon offerings at quoted rates, and prices are tending upward. Holders are asking \$1.90@1.92@1.94 for 25 lb for Superfine. The market in this State is said to be very light. We quote California Common at \$1.50@1.55, do. Choice at \$1.60@1.75, Oregon Common at \$1.60@1.80, do. Superfine at \$1.90@2.12. Sales of 3,000 do Fair to Good, at \$1.70@1.85.

OATMEAL—Continues unchanged at 55c@6c.

ONIONS—Receipts since our last, 1,050 bbs. Total since April 1st, 1,025 bbs, including 322 do per Germania from Washington Territory. There has been no change in price since our last. Stockton City are quotable at \$1.30@1.35, and Union City at \$1.40@1.50.

POTATOES—Receipts since our last, 16,825 sks. Total since April 1st, 15,815 sks. In consequence of supposed light stocks nothing can be now had under \$2.25, and before this paper reaches our readers the market will have reached \$2.50. Sales of 300 sks of Tomatoes at \$1.50@1.55, 800 do of Potatoes and Tomatoes at \$1.80@2.00, 300 do of Hum-boldt at \$2, 800 do private, and 1,000 do of Petaluma at \$2.00.

POULTRY—The supply is rather short, and prices are advancing. We quote Spring Chickens at \$1.50@1.60 per doz. Broilers \$1.40@1.50, Ducks \$1.40@1.50. Other descriptions unchanged.

EYES—Receipts since our last, 706 cts. Total since April 1st, 706 cts. The market is weak and quotable at \$1.50@1.75.

SEEDS—There is no change in prices to note, and none in the usual demand.

VEGETABLES—The supply is being better, except in one or two descriptions, and prices are declining.

WHEAT—Receipts since our last, 106,063 centals. Total since April 1st, 76,571 centals. The following have been the receipts since Jan. 1st:

January..... 842,241
February..... 823,189
March..... 915,215
April (to date)..... 76,571
Total..... 2,657,206

DOMESTIC PRODUCE.

[WHOLESALE.]

WEDNESDAY M., April 7, 1875.

BEANS.			Salinas.....			2 1/2 @ 25		
Bayo.....	2 1/2 @	3 1/2	Sweet, per cwt.....			2 1/2 @ 25		
Butter.....	3 1/2 @	4 1/2	Tomas.....			2 1/2 @ 25		
Pea.....	3 1/2 @	4 1/2	POULTRY & GAME.					
Pink.....	1 1/2 @	1 1/2	Broilers, small.....			4 00 @ 6 00		
Sm'l wh. per lb.....	3 @	3 1/2	do large.....			7 00 @ 7 50		
BROOM CORN.			Ducks, per dozen.....			75 @ 100 00		
Per D.....	3 @	8	Ducks, tame.....			9 00 @ 10 00		
COTTON.			Geese, per pair.....			2 50 @ 3 00		
Cal. 1874 & B.....	12 1/2 @	15	Hare, per doz.....			2 50 @ 3 00		
DAIRY PRODUCE.			Hens, per dz.....			10 00 @ 9 00		
BUTTER.			Live Turkeys, hene.....					
Cal. choice.....	25 @	30	do good.....			22 @ 25		
Firkin.....	26 @	28	do dressed.....			21 @ 25		
Inferior.....	14 @	16	Mallard Ducks.....			21 @ 25		
Chesse, Cal.....	14 @	16	do small.....			21 @ 25		
Eastern.....	17 @	20	Prairie Chickens.....			21 @ 25		
EGGS.			Quail, per doz.....			21 @ 25		
Cal. fresh.....	23 @	32 1/2	Rabbits.....			15 @ 20 00		
Ducks.....	28 @	32	do tame doz.....			10 00 @ 1 1/2		
Eastern.....	28 @	32	Roosters, young.....					
Oregon.....	28 @	32 1/2	Shi.....			8 50 @ 9 50		
FEED.			Vension, per lb.....			8 50 @ 9 50		
Bran, per ton.....	15 @	20	Wild Geese, gray.....			8 50 @ 9 50		
Corn Meal.....	33 @	34 00	do white.....			8 50 @ 9 50		
Hay.....	11 @	17 50	PROVISIONS.					
Middlings.....	4 @	4 1/2	Cal. Bacon, Light.....			16 @ 16 1/2		
Oil cake meal.....	25 @	30	do Medium.....			14 @ 15		
Straw, per bale.....	60 @	67 1/2	do Heavy.....			14 @ 15		
FLOUR.			Cal. Smoked Beef.....			10 @ 12 1/2		
Extra.....	5 00 @	5 37 1/2	Eastern do.....			15 @ 15 1/2		
Superfine.....	4 00 @	4 75	East'n Shinoid's.....			13 @ 14		
FRESH MEAT.			Hams, Cal.....			15 @ 15		
Beef 1st quality.....	7 @	8 1/2	do Wbitakers.....			15 @ 15 1/2		
Second do.....	6 @	7	do Duffell, ch.....			14 @ 15		
Third do.....	5 @	6	do Armour.....			14 @ 14 1/2		
Lamb.....	9 @	10	do best.....			14 @ 15		
Mutton.....	9 @	10	do Stewart.....			14 @ 15		
Pork, undressed.....	6 1/2 @	7 1/2	Lard.....			14 @ 15		
do dressed.....	9 1/2 @	9 3/4	SEEDS.					
Veal.....	6 @	7	Alfalfa, Chile.....			9 @ 14		
GRAIN, ETC.			do California.....			15 @ 17 1/2		
Barley, coast.....	1 50 @	1 55	Canary.....			17 @ 19		
do brewing.....	1 50 @	1 50	Clover Red.....			17 @ 19		
Buckwheat.....	3 25 @	3 50	do White.....			65 @ 75		
Corn, White.....	1 50 @	1 60	Cotton.....			6 @ 10		
do, Yellow.....	1 40 @	1 45	Flaxseed.....			6 @ 10		
Oats, ch ice.....	1 65 @	1 70	Hemp.....			30 @ 40		
Rye.....	1 20 @	1 25	Pennisia.....			20 @ 30		
Wheat, coast.....	1 40 @	1 45	do.....			10 @ 12		
do shipping.....	1 65 @	1 67	Mustard, white.....			1 1/2 @ 2 1/2		
do milling.....	1 65 @	1 70	do Brown.....			1 1/2 @ 2 1/2		
HOPS.			Ky. Blue Grass.....			50 @ 60		
California, 1874.....	30 @	32 1/2	do 2d quality.....			40 @ 50		
East'n 74 ch.....	40 @	42 1/2	do 3d quality.....			30 @ 41		
Beeswax, per lb.....	25 @	27 1/2	Sweet V Grass.....			75 @ 100		
Honey in comb.....	18 @	25	Orchard.....			30 @ 35		
do Strained.....	18 @	25	do.....			25 @ 30		
Onions.....	1 20 @	1 25	Hungarian do.....			8 @ 12		
Pulley.....	8 1/2 @	10 1/2	Lawn do.....			50 @ 60		
Almond, dehydrated.....	8 @	10	Mesquit do.....			15 @ 20		
do, soft.....	20 @	22 1/2	Timothy.....			8 @ 12		
Brazil do.....	14 @	15	Lard.....			15 @ 20		
Cal. Walnuts.....	14 @	15 1/2	SPRING-					
O. Pecans per lb.....	8 @	9	Good to choice.....					
Chile Walnuts.....	9 @	10	Long Staple.....			21 @ 24		
Cocconuts, 1000.....	80 @	100 00	good Shipping.....			18 @ 21		
Filberts.....	17 @	18	Heavy tree.....			18 @ 21		
Pecanuts.....	17 @	18	Juba, do.....			18 @ 19 1/2		
POTATOES.			do wet.....			8 @ 9		
Bodega.....	2 @	2 25	Tallow.....			6 @ 7		
Cutted.....	2 @	2 25	do Refined.....			6 @ 7		
H. M. Bay.....	2 @	2 25						
Humboldt.....	2 1/2 @	2 37 1/2						
Mission.....	2 @	2 25						

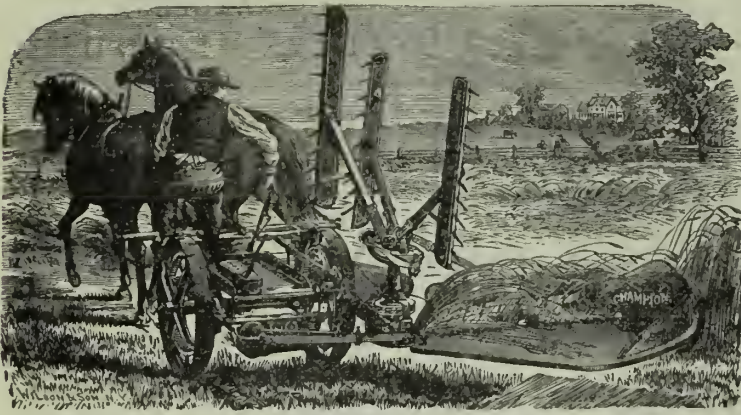
FRUITS AND VEGETABLES.

[WHOLESALE.]

WEDNESDAY M., April 7, 1875.

FRUIT MARKET.		do St. Peter.....		do Sliced Beef.....	
Tabati, Or. per M.....	2 @ 2 1/2	10 @ 10	10 @ 10	10 @ 10	10 @ 10
Lorita, do.....	2 @ 2 1/2	10 @ 10	10 @ 10	10 @ 10	10 @ 10
Cal. do.....	18 50 @ 35 00	10 @ 10	10 @ 10	10 @ 10	10 @ 10
Limes, per M.....	12 50 @ 15 00	10 @ 10	10 @ 10	10 @ 10	10 @ 10
Cal. Lemons, per M.....	15 00 @ 30 00	10 @ 10	10 @ 10	10 @ 10	10 @ 10
Australian do.....	15 00 @ 30 00	10 @ 10	10 @ 10	10 @ 10	10 @ 10
do Sicily.....	15 00 @ 30 00	10 @ 10	10 @ 10	10 @ 10	10 @ 10
Bananas, bunch.....	3 00 @ 4 00	10 @ 10	10 @ 10	10 @ 10	10 @ 10
Cocconuts, 1000.....	80 @ 100 00	10 @ 10	10 @ 10	10 @ 10	10 @ 10
Pineapples, doz.....	5 00 @ 6 00	10 @ 10	10 @ 10	10 @ 10	10 @ 10
Apples, per box.....	1 50 @ 3 00	10 @ 10	10 @ 10	10 @ 10	10 @ 10
Cherries.....	1 @ 1 50	10 @ 10	10 @ 10	10 @ 10	10 @ 10
Blackberries.....	1 @ 1 50	10 @ 10	10 @ 10	10 @ 10	10 @ 10
do wild.....	1 @ 1 50	10 @ 10	10 @ 10	10 @ 10	10 @ 10
Huckleberries.....	1 @ 1 50	10 @ 10	10 @ 10	10 @ 10	10 @ 10
Strawberries.....	1 @ 1 50	10 @ 10	10 @ 10	10 @ 10	10 @ 10
Gooseberries.....	1 @ 1 50	10 @ 10	10 @ 10	10 @ 10	10 @ 10
Raspberries.....	1 @ 1 50	10 @ 10	10 @ 10	10 @ 10	10 @ 10
Currants.....	1 @ 1 50	10 @ 10	10 @ 10	10 @ 10	10 @ 10
do black.....	1 @ 1 50	10 @ 10	10 @ 10	10 @ 10	10 @ 10
Apricots.....	1 @ 1 50	10 @ 10	10 @ 10	10 @ 10	10 @ 10
Plums.....	1 @ 1 50	10 @ 10	10 @ 10	10 @ 10	10 @ 10
Peaches, hskt.....	1 @ 1 50	10 @ 10	10 @ 10	10 @ 10	10 @ 10
do do.....	1 @ 1 50	10 @ 10	10 @ 10	10 @ 10	10 @ 10
do ext Mount.....	1 @ 1 50	10 @ 10	10 @ 10	10 @ 10	10 @ 10
Pears, Bart't, bx.....	1 @ 1 50	10 @ 10	10 @ 10	10 @ 10	10 @ 10
do Cooking.....	1 @ 1 50	10 @ 10	10 @ 10	10 @ 10	10 @ 10
Crab Apples.....	1 @ 1 50	10 @ 10	10 @ 10	10 @ 10	10 @ 10
Nectarines.....	1 @ 1 50	10 @ 10	10 @ 10	10 @ 10	10 @ 10
Wat'rme's.....	1 @ 1 50	10 @ 10	10 @ 10	10 @ 10	10 @ 10
Musk't.....	1 @ 1 50	10 @ 10	10 @ 10	10 @ 10	10 @ 10
Pomegran'.....	1 @ 1 50	10 @ 10	10 @ 10	10 @ 10	10 @ 10
Figs.....	1 @ 1 50	10 @ 10	10 @ 10	10 @ 10	10 @ 10
Grapes.....	1 @ 1 50	10 @ 10	10 @ 10	10 @ 10	10 @ 10
do Muscat.....	1 @ 1 50	10 @ 10	10 @ 10	10 @ 10	10 @ 10
do Malava'.....	1 @ 1 50	10 @ 10	10 @ 10	10 @ 10	10 @ 10
do Sweetw'r.....	1 @ 1 50	10 @ 10	10 @ 10	10 @ 10	10 @ 10
do Mission.....	1 @ 1 50	10 @ 10	10 @ 10	10 @ 10	10 @ 10
do Rose of Peru.....	1 @ 1 50	10 @ 10	10 @ 10	10 @ 10	10 @ 10
do Black.....	1 @ 1 50	10 @ 10	10 @ 10	10 @ 10	10 @ 10
do Moraga.....	1 @ 1 50	10 @ 10	10 @ 10	10 @ 10	10 @ 10
		DRIED FRUIT.			
		Apples, per lb.....	5 @ 7 1/2		
		ears, per lb.....	9 @ 12 1/2		
		Peaches, per lb.....	10 @ 12 1/2		
		Apples, per lb.....	12 @ 15		
		Plums, per lb.....	6 @ 8		
		Pitted, do.....	15 @ 15		
		do Extra, per lb.....	10 @ 15		
		Raisins, per lb.....	10 @ 15		
		Black Figs, per lb.....	5 @ 6		
		Wine, do.....	8 @ 12 1/2		
		Prunes.....	1 @ 1		
		do German.....	14 @ 10		
		Citron.....	32 @ 35		
		Zante Currants.....	8 @ 9		
		Dates.....	12 @ 14		
		Asparagus.....	50 @ 75		
		Beets.....	20 @ 25		
		Onions, per 100 lbs.....	50 @ 75		
		Carrots, per ton.....	60 @ 100		
		Cauliflower, doz.....	1 @ 25		
		celery, doz.....	40 @ 50		
		Garlic, per lb.....	11 @ 12		
		Green Peas.....	1 @ 1		
		Green Corn per doz.....	1 @ 1		
		Sun's Squash per ton.....	1 @ 1		
		Marro't Salted.....	1 @ 1		
		Okra, per doz.....	75 @ 25		
		String Beans, per lb.....	1 @ 1		
		Lima Beans.....	1 @ 1		
		Parenipe.....	15 @ 20		
		Shell Beans.....	1 @ 1		
		Peppers, green, box.....	1 @ 1		
		Okra, per doz.....	1 @ 1		
		Cucumbers, box.....	1 @ 1		
		Tomatoes, box.....	1 @ 1		
		Egg Plant, box.....	1 @ 1		
		Rhubarb.....	1 @ 1		
		Turnips.....	25 @ 40		
		Turnips, per lb.....	15 @ 10		

The CHAMPION REAPER AND MOWER.



THE CHAMPION SELF-RAKER.

CHAMPION of the WORLD.

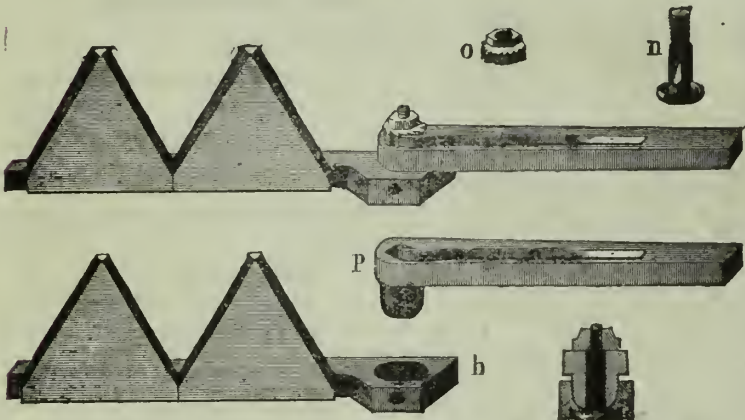
Everywhere Victorious.



THE CHAMPION MOWER.

Baker & Hamilton,

Hardware, Improved Straw-Burning Engines, Sweepstake Single Gear Headers, Etc.



THE CHAMPION PATENT KNIFE-HEAD AND PITMAN CONNECTION.

Address,

Sole Agents for the Genuine Pitts' Buffalo Threshers, Haines' Headers, Etc.

The Champion has proved itself to be the BEST MOWER and BEST SELF-RAKE REAPER ever brought to this Coast. It is the only machine which will cut on the steep side hills perfectly. The frame is Wrought Iron, and it is made in the best possible manner. Farmers, ask your neighbors who have used the CHAMPION how they like it compared with the Cast Iron Machines formerly sold on this Coast. The Price is within the reach of all. Send for Circulars.

THE CHAMPION GUARD FINGERS are formed from solid pieces of metal that are first cut into blanks as shown in Fig. 1, and then rolled solid, without a slot and without a weld, as shown in Fig. 2, after which the slot is sawed out of the solid metal as represented in Fig. 3. They are then ground and tempered, leaving a perfect, smooth-cutting edge, and securing the greatest possible uniformity in size and shape. In tempering, the entire outer surface is made hard and the center left soft and tough, thus making a Guard-Finger perfect in every respect.



THE CHAMPION GUARD-FINGERS.

BAKER & HAMILTON,

SAN FRANCISCO or SACRAMENTO.

The Hoadley Regulating Cut-off THRESHING ENGINES.



The above cut represents the Hoadley New Style Threshing Engine, 15-horse power, with Patent Cut-off Governor. We also have the same style and size, with HOADLEY'S NEW PATENT STRAW-BURNING FIRE BOX. This new Engine has been thoroughly tested, and we are prepared to warrant it to give satisfaction. OUR GUARANTEE GOES WITH EVERY ENGINE INTO THE FIELD. This new engine is fitted out complete, with High Seat, Foot-Board for Driver, California Roller Brake (not shown in engraving), Iron Hub, Patent Wheels, Forged Bent Axle, and all Mountings in Perfect Order.

THE

Hoadley Straw-Burning Threshing Engine

Is no heavier than wood-burning engines of same power, and is unquestionably the Best Threshing Engine in the world. It is Lighter, Better Made, Safer, and will do More Work than any other engine of same size and price ever built. THIS FACT IS INDISPUTABLE.

Farmers and Threshers desiring to buy Straw-Burners for coming season, should secure their Engines Early, as the number is not large, and many are already engaged. All Engines will be tested in presence of customers, when required. Send for Circular and Prices. Address,

TREADWELL & CO., Sole Agents, San Francisco.

The Pacific Rural Press is, for the Pacific Coast, the most valuable paper published in the Union. It is precisely adapted for this part of the world. As an exchange it is invaluable, giving a complete view of climate and crop all over the coast. The only fault about it is that the mailing clerk forgets us sometimes. Will he take a hint—Southern Californian, February 1874.

COMPTON & BINFORD,
REAL ESTATE BROKERS.

Employment and Intelligence Office, Horse and buggy free to see property. Offices at Compton, and at corner of Court and Spring streets, Los Angeles, Cal.

PUMPS.

"PEOPLE'S PUMP."

THE FARMERS' FRIEND.

BEST IN USE FOR HOUSE AND STOCK PURPOSES. CAN BE USED WITH HOSE FOR WASHING WAGONS, WINDOWS, AND WETTING GROUNDS.

SEND FOR CIRCULAR.



DUNHAM, CARRIGAN, & CO.,

Successors to

Conroy, O'Connor & Co.,

San Francisco

BOWEN'S PREMIUM YEAST POWDER.

Bowen's Premium Yeast Powder.

Bowen's Premium Yeast Powder.

Bowen's Premium Yeast Powder.

Bowen's Premium Yeast Powder.

Best in the World! Every Can Guaranteed!!

For Sale in Every Village, Town and City on the Pacific Coast.

Ask Your Grocer for It.

Manuf'd by BOWEN BROS., 432 Pine St., S. F., and 11th & 12th Sts., Oakland.

RELIABLE.

UNEQUALED.

THE

ONE PRICE DRY-GOODS HOUSE.

42, 44, and 46, Third Street, San Francisco.

THE GOODS ARE ALL MARKED, IN PLAIN FIGURES.

PEIXOTTO & SILVERMAN.

Nurserymen.

Established 1853.

Stocks for Nurserymen.

Plum Seedlings, Mirololan, the best French stock, does not sucker. \$50 per 1000
 Apple Seedlings. 10 per 1000
 Pear Seedlings. 10 per 1000
 Cherry Seedlings, Mazzard. 12 per 1000
 Cherry Seedlings, Mahaleb. 20 per 1000
 Walnuts, English, 4 to 6 feet. 15 per 100
 Cork Elm, best Elm, 4 to 6 feet. 15 per 100
 Blue Gum or Eucalyptus, in variety. 5 to 10 per 100
 Magnolia Grandiflora. 2 50 per doz.
 Magnolia Acuminata. 2 50 per doz.
 Magnolia Tripetala. 2 50 per doz.
 Golden Arborvitae. 2 50 per doz.
 Crataegus Arbutifolia. 2 50 per doz.
 Swedish Juniper. 2 50 per doz.
 Irish Juniper. 2 50 per doz.
 Heath-leaved Arborvitae. 2 50 per doz.
 Heath, Mediterranean. 2 50 per doz.
 Laurustinus, 6 to 12 in. 2 50 per doz.
 Making the growth of Oranges and Lemons a specialty, I have imported from all sources the best known varieties, and now offer five thousand Grafted Trees properly worked and twice transplanted at \$18 per dozen. Grafted oranges by the 100 or 1,000 at prices on application. The amateur in want of large PALMS, large AURICARIAS, large CAMELIAS and large TREE FERNS, a good stock on hand; also the usual large stock of fruit and ornamental trees.

BERNARD S. FOX,
 San Jose, Cal.

THOS. MEHERIN, Agent, 516 Battery Street, S. F.
 Francisco. 21v8-8

Fruit, Shade and Ornamental

EVERGREEN TREES

—AND—

Plants for Sale.

At the old stand, corner Oregon and Battery streets, directly opposite Post Office, San Francisco.

I NOW OFFER FOR SALE

The Largest and Best Collection of Fruit, Shade and Evergreen Trees and Plants ever offered in this market, and at Reduced Prices.

Persons laying out new grounds would do well to call and examine our stock before purchasing elsewhere.

ORDERS FROM THE COUNTRY

Promptly attended to and packed with great care. A large stock of Cypress, Pines and Blue Gums for sale very low. Send for Price Catalogue.

Agent for B. S. Fox's Nurseries, San Jose.
 Address

THOMAS MEHERIN,
 516 Battery St., S. F.

1852. 1875

ESTABLISHED IN 1852.

THE STOCKTON NURSERY

I have for sale for the ensuing season a Large and Well Grown Stock of All Varieties of

FRUIT TREES,
 SHADE,
 ORNAMENTAL
 and
 EVERGREEN TREES,
 GREENHOUSE PLANTS, AUSTRALIAN GUMS,
 SHRUBS, ROSES, BULBS, PALMS.

Send for Catalogue.

W. B. WEST, Stockton, Cal.

J. ROCK'S NURSERIES,

San Jose, California.

We offer this season a Complete Stock of

FRUIT AND ORNAMENTAL TREES,
 SMALL FRUITS AND PLANTS.

The attention of Dealers, Nurserymen and Planters is invited to our Large Stock of Fruit Trees.

All Leading Market Varieties are grown in large quantities. To all those purchasing largely we will make a Liberal Discount.

Catalogues FREE on application.

23-v8-tf JOHN ROCK, San Jose, Cal

BELLEVUE NURSERY,

Telegraph Avenue, Oakland.

WE OFFER FOR SALE THE PRESENT SEASON A
 LARGE ASSORTMENT OF

Ornamental Trees and Shrubs

OF BEST TRIED VARIETIES.

Many fine specimens of good size can be seen on the grounds to select from. Choice collections (true to name) put up for those starting a garden.
 Street cars pass every fifteen minutes.

3-v8-tf S. NOLAN.

BLOOMINGTON NURSERY, Bloomington,
 Ill.—F. KRONIX. Spring lists free, or the set of four catalogues post free for twenty cents.

SUPERIOR FRUIT TREES

TRUE TO NAME.

A fine collection of Evergreen and Deciduous Trees. Australian Gum Trees in variety, by the hundred or thousand. Monterey Cypress in quantities and sizes to suit all. Orange and Lemon Trees at reduced prices. A general variety of Nursery stock.

Also, Rhubarb and Asparagus root

T. KLEY,

18v29-tf 315 Washington St., S. F.

F. LUDMANN.

ROD. M. EISEN.

PACIFIC NURSERY,

Baker St., Between Lombard and Chestnut.

San Francisco, Cal

P. O. Box 475.

We offer this Season a Large and Complete Selection of
 Well Grown

EVERGREEN AND DECIDUOUS TREES AND
 SHRUBS, FLOWERING AND ORNA-
 MENTAL PLANTS

At very reasonable Prices. Our Descriptive Catalogue of Evergreens and Deciduous Trees and Shrubs, and our Wholesale Trade List (For Dealers and Nurserymen) will be sent on application. All Orders promptly filled.

F. LUDMANN & CO.

KING'S NURSERY,

Twenty-fifth St., bet. Telegraph & Broadway
 OAKLAND, CAL.

Fruit, Shade and Evergreen Trees, Shrubs, Roses, Etc. Persons laying out new grounds would do well to call and examine our stock before purchasing elsewhere. A large stock of EUCALYPTUS, including BLUE GUM Pines and CYPRESS from six inches to twelve feet high. Acacias in variety; Young Stock for Nurserymen; Pines and Cypress; Three Thousand Magnolia Grandiflora from six inches to five feet high; Camelia Japonica; Gardenia Cape Jessamine; Arbutus in variety, at lowest rates. Orders attended to.

M. KING, Nurseryman,

Oakland, Cal.

Thos. A. Garey's

Semi-Tropical Nurseries.

LOS ANGELOS, CAL.

Forty varieties of the Citrus family of semi-tropical trees, including many rare and beautiful, as well as useful and profitable kinds.

Grafted and Budded Orange Trees a specialty. Trees packed to arrive in good order. Priced Catalogue sent free. Address me P. O. Box, 528, Los Angeles city, Cal.

23v8-6m

THOS. A. GAREY.

PEPPER'S NURSERIES.

(Established in 1858.) PETALUMA, CAL.

Green Houses and Tree Depot corner Washington and Liberty streets.

4 Green Houses. 3,000 feet of Glass. Fruit Trees a Specialty.

We offer for sale at lowest market rates a general assortment of Fruit and Shade trees, small Fruits, Vines etc. Evergreen trees and Shrubs in great variety. Green House, Conservatory and Bedding Plants, Roses, etc. We are now ready, Nov. 1st, to fill orders for trees and plants. Catalogue and price list furnished on application.

Address, W. H. & G. B. PEPPER,

19v8-tf Petaluma, Sonoma Co., Cal.

PEACHES, APRICOTS AND PLUMS

are specialties at the Vacaville Nursery, Solano Co., Cal. Alexander's Early, Thurber and Peento in bud, 50 cents each; Beatrice, Louise, Rivers' Early, Lord Palmerston, Lady Palmerston, Prince of Wales, Princess of Wales, Picquet's Late, Lady Parham, Italian Dwarf, Golden Dwarf, Bloodleaved and many other varieties of new Peaches in bud, at 25 cents each; Trees of Alexander's Early, \$1 each. Beatrice, Plowden, Fremont and a general assortment of the leading varieties, 25 cents each; Apricots, Plums, Apples, Pears, Cherries, Almonds, Figs, Olives, Pomegranates and including most of the leading varieties of fruit for sale at low prices. D. E. Hough, Vacaville, Solano Co., Cal.

FOR SALE.

10,000 Acres Grazing Land—San Luis Obispo County. Title, U. S. Patent. Apply to
 MOODY & FARISH,
 210 Davis street.

The Nurseryman's Directory.

The undersigned have in preparation, a NURSERYMAN'S DIRECTORY, embracing a list of the Nurserymen, Florists, Seedsmen and Tree Dealers of the United States. The work will be sold wholly by subscription, the price of which will be FIVE DOLLARS PER COPY. A limited space will be given to Advertisements, at the following low rates:

Full Page.....\$25.00

Half Page.....14.00

One-third Page.....10.00

One-fourth Page.....8.00

One-sixth Page, \$5.50.

For Sample Pages, and further information, Address

D. W. SCOTT & CO.,

Printers and Publishers,

Galena, Illinois.

ALEX. BUSWELL,

BOOK BINDER, PAPER RULER

AND BLANK BOOK MANUFACTURER.

521 Clay Street, S. F.

Blank Books Ruled, Printed and Bound to Order

Seedsmen.

1875. Established 1857. 1875.

Capital Nursery and Seed House

W. R. STRONG and ROBERT WILKINSON, Proprietors, having united their interests in the Seed and Tree business, offer to the public the largest and finest growth of both Seeds and Trees ever offered to the California public, of their own production, and also from the largest and most reliable houses of the Eastern States and Europe, all of which we offer as low as Eastern Dealers.

TREES. TREES. TREES.

Fruit, Shade, Ornamental, Evergreen, etc., raised in our Nurseries of the very best varieties. Dealers and Growers furnished at very lowest rates. Among our numerous varieties we call especial attention to BRIGGS' RED MAY PEACH, the earliest known, large, handsome of excellent flavor and good shipper.

SEEDS. SEEDS. SEEDS.

Vegetable, Flower, Field and Tree Seeds, and Flowering Bulbs and Plants.

100,000 pounds Finest Quality California ALFALFA, RED and WHITE CLOVER, KENTUCKY BLUE GRASS, RYE GRASS, ORCHARD GRASS, VERNAL GRASS, MESQUIT GRASS, TIMOTHY, RED-TOP GRASS, and every other Grass adapted to the Pacific States and Territories.

All the finer qualities of our Seeds will be forwarded by mail (post-paid) to customers at Catalogue rates, on receipt of money, which can be sent by postal orders or registered letters, or express, at our risk.

CATALOGUES AND PRICE LISTS on application, and forwarded by mail.

WAREHOUSE, 3 and 10 J street. NURSERIES, U street, SACRAMENTO CITY. TREE YARD, I street, next to Library Building.

W. R. STRONG & CO.



Miscellaneous Notices.

Union Box Factory,

GEO. W. SWAN & CO.,

115 and 116 Spear St., bet. Mission & Howard
 SAN FRANCISCO.

Apple, Pear, Plum, Peach, Cherry, Grape,
 Orange, Lime and Wine Cases.

Tomato, Potato, Fig and Raisin Boxes.

Strawberry, Raspberry and Blackberry Chests
 and Drawers, and Baskets for all kinds of Berries.

Peach and Picking Baskets, Butter Chests and
 Boxes, Cheese Boxes, Square and Round Egg Carriers.

Drums for Figs, Cherries, Raisins, and for
 other Dried Fruits.

Free Packages—Boxes not to be returned—a
 good article, costing less than Sawed Boxes.

Lard Caddies, Coffee and Fruit Caddies.

Turkey and Chicken Coops, Bee-Hives, Etc.

Packing Boxes for Dry-Goods, Cigars, Candies,
 Canned Fruits, Honey, Macaroni, Crackers,
 Sugar, Soap, Boots, Etc.

In fact, every style of Boxes manufactured in
 the Union, and turned out in the Best Style at Favorable Prices. Orders from the country well attended to



ROWLANDS' ODONTO

Whitens and preserves the teeth, prevents and arrests their decay, strengthens the gums, and gives a pleasing fragrance to the breath. The success of the last seventy-five years has proved its superiority over all other preparations for the teeth. Sold everywhere by all druggists, chemists, and patent medicine dealers. Ask for Rowlands' Odonto, of 20, Hatton Garden, London, and avoid all imitations.

EMPIRE PARLOR MATCHES

We have imported the requisite Machinery and Chemicals to add to our previous assortment of Matches the celebrated Parlor Match, deservedly popular among families and smokers, on account of brilliant burning qualities, and absence of smell or odor. Manufactured from the best sugar cane wood Superior to any other, and found only upon the Pacific Coast. They are full count, and without objection of any kind. Packed in boxes of most desirable style. Brimstone and Safety Matches of superior quality manufactured, and are guaranteed to give entire satisfaction. Encourage Home Industry, and get superior goods at less cost than the imported article.

Ask your Grocer for the EMPIRE PARLOR MATCHES, and be sure you get no others. For Sale by all Grocers.

B. BENDEL & CO.,

MANUFACTURERS, 318 FRONT STREET.

FACTORY—Corner Eleventh and Harrison streets, S. F. feb-6-07

LOOK TO YOUR INTEREST!



MANUFACTURED BY THE

PACIFIC RUBBER PAINT

COMPANY.

For many years chemists and others have experimented in mixing India Rubber with Oil, Lead, etc., in order to produce a perfectly

WATER-PROOF PAINT,

And at last successful in their effort, have formed a chemical combination of Rubber with oil paints, which when applied becomes hard and elastic enough not to crack or peel, from the action of the atmosphere, with a gloss equal to work finished with varnish. The

Pacific Rubber Paint Company,

Of San Francisco, California, together with the RUBBER PAINT COMPANY, of Cleveland, Ohio, own all the patents covering perfect combinations like the above, which is known and sold by them as "Rubber Paint."

The great demand for the Rubber Paint induced this Company to purchase of the Cleveland, Ohio, and New York Rubber Paint Company, the patents for this coast, and are now manufacturing this paint in all colors, in large quantities, and have put the price below the best lead and oil paints. The Rubber Paint is prepared in Pure White, in all Cottage and other colors, comprising any number of different shades and put up ready for use, being a great advantage, as it can be spread by any one.

It Flows From the Brush Freely. Works Easily, and Settles Promptly. It is available for all kinds of Painting,

And may be used with equal advantage on iron, stone, wood, brick, or plaster.

The Rubber Paint will cover more surface, cover it better, and last much longer than Lead and Oil. Two coats of the Rubber Paint is better than three coats of Ordinary Paint.

SAN JOSE, CAL., March 20, 1875.

PACIFIC RUBBER PAINT Co., San Francisco.—Gentlemen:—I have used and sold the Rubber Paint in this city during the last four years. We have about one hundred buildings painted with the Rubber Paint. Among the prominent ones are the State Normal School, Gates Institute, City Market; the residences of Josiah Belden, J. W. Hinds, President Gold Note Bank, J. R. Arquello, Santa Clara, etc. It has never failed to give satisfaction, with a test of from one to four years, so that its durability has been well tested. My sales last year were nearly five thousand gallons.

Truly Yours, AMASA EATON.

REFERENCE:

CAPT. EDWIN MOODY, San Francisco.

AMASA EATON, San Jose.

WILLEY & RINALDO, San Jose.

WALLACE EVERSON, Oakland.

F. K. SHATTUCK, Oakland.

ISAAC KNOX, ESQ.

Office and Factory.

No. 207 Sacramento Street,

SAN FRANCISCO, CAL.

JESSE HEALY,
 ANDREW DE FOREST, } Proprietors.
 mar27-sa

The Popular Farm Journal.

—THE—

AMERICAN PATRON

Is acknowledged by all who have examined it to be the very best paper published in the interest of the Order of

Patrons of Husbandry

And furnished at the low rate of

One Dollar and Twenty-five
 Cents Per Year,

With liberal reductions to clubs and Granges, and handsome Premiums to canvassers. Send for free sample copy and be convinced.

THE AMERICAN PATRON has an ably-conducted Editorial Department, dealing each week strong blows at monopoly in every form, clearly elucidating the great principles which underlie the agitation known as the

Farmers' Movement.

THE AMERICAN PATRON is a large eight-page paper, containing forty broad columns of elegant reading matter. The Agricultural Department is made up of original and select matter of general interest to the farmer.

This paper is not the rehash of a daily paper, but all the matter is carefully selected and prepared for this edition alone.

Important Inducements to Granges.

Specimen copies sent free on application.

Address all communications to

J. K. BARND, Publisher,

Findley, Ohio.

Geo. W. Chapin, Real Estate Agent, 434 Montgomery St., San Francisco, buys and sells Ranches in all parts of the State. City Real Estate exchanged for country Property. MONEY LOANED. Post Office Box 1120

1874. GUIDE AND CATALOGUE 1875.
FREE.

To persons contemplating purchasing I will send my ILLUSTRATED, DESCRIPTIVE CATALOGUE and GUIDE to the VEGETABLE and FLOWER GARDEN WITHOUT CHARGE. It contains the most extensive and valuable list of



Flowering Bulbs, Roots and Plants, Semi-Tropical Trees, Ornamental Shrubs, Fruit and Shade Trees, etc., ever offered in this market. It tells how to successfully grow the Australian Blue Gum, the Monterey Cypress, Pine, etc., and the proper method of Cultivating Tobacco on this Coast.

My stock of seeds is in part my own raising and in part direct importations from the best European and Eastern growers, and is unsurpassed in all respects by that offered by any other establishment. 100,000 Australian Blue Gums and Monterey Cypress in boxes at from \$30 to \$50 per 1,000, raised at my own Nursery at San Rafael.

R. J. TRUMBULL,
Grower, Importer, Wholesaler and Retail Dealer in Seeds, Shrubs, Trees, etc.

20v8-6m-16p 427 Sansome street, S. F.

Improve Your Poultry,

IT COSTS NO MORE TO KEEP GOOD FOWLS THAN POOR ONES!

OAKLAND POULTRY YARDS,

Cor. 16th and Castro streets, Oakland, Cal.



Eggs for Hatching

GUARANTEED FRESH,

True to Name,

And to carry safely to any part of the country.

BRAHMAS, LIGHT AND DARK LEGHORNS, WHITE AND BROWN HOUDANS, COCHINS, BUFF, BLACK AND PARTRIDGE POLISH, GOLD AND SILVER, HAMBURGS, GOLDEN, SILVER AND BLACK GAMES, AYLESBURY AND ROSEN DUCKS, DORKINGS AND BANTAMS.

BRONZE TURKEYS, the Largest in America. Send for Circular to

GEO. B. BAYLEY,
Box 659, San Francisco.

16p

M. FALLON,

Cor. Seventh & Oak sts.,

OAKLAND, CAL.

Light & Dark Brahmas, Buff, White and Partridge Cochins, Spangled, Golden and Silver Polish, Spangled, Golden and Silver Hamburgs, Pure White-faced Black Spanish, White and Brown Leghorns, Silver Grey Dorkings, Houdans, Silkies, Black-Red Games, Bronze Turkeys, Rouen and Aylesbury Ducks. All from Premium Stock of Best Strains.

Fowls of above varieties for sale; also, Chicks in their season. Eggs packed with care and sent in rotation as orders are received.

ERNEST L. RANSOME,

Artificial Stone Manufacturer,

No. 10 Bush Street, San Francisco,
Office Hours 1 to 2 Daily.

GRINDSTONES at 3, 2½ and 1 cent per pound according to quality. In ordering state for what purpose the stone is needed.

"I have used one of your grindstones for some time, and it is the best I ever had." F. J. CURRY, November 20, 1874. Prop. S. F. Boiler Works.

EMERY STONES, VASES AND FOUNTAINS, GRAVESTONES and CEMETERY WORK, STONE DRESSINGS GENERALLY, NATURAL STONE hardened and preserved, SILICATE OF SODA for Soap Makers and Laundrymen, &c.

PORTLAND CEMENT for Sale in Lots to Suit. Send for Price-List. eow-hp

SUPPORT HOME INDUSTRY.

WHEATEN STARCH,

MANUFACTURED BY

J. JOHNSTON,

SAN JOSE, - - - - - CALIFORNIA.

This starch is made from the best of wheat, and is used by the laundries and hotels, who pronounce it superior in strength and fine satin gloss to any imported starch—one pound being equal to one and a half pounds of Eastern starch.

FARMERS' UNION.

SUCCESSOR TO A. PFISTER & Co.,

Cor. Second and Santa Clara Sts., San Jose.

CAPITAL, - - - - - \$100,000.

WM. ERKSON, - - - - - PRESIDENT

H. E. HILLS, - - - - - MANAGER

Directors:—Wm. Erkson, L. F. Chipman, Horace Little, J. P. Dudley, David Campbell, James Singleton, Thomas E. Reed, C. T. Bettle, E. A. Braley.

Will do a General Mercantile Business, also receive deposits, on which such interest will be allowed as may be agreed upon, and make loans upon approved security.

NEW CROP OF**BLUE GUM SEED.****GRASS AND CLOVER SEEDS.****FLOWER AND VEGETABLE SEEDS.****TREE AND FRUIT SEEDS.**

OF EVERY DESIRABLE VARIETY AND OF THE BEST QUALITY; OFFERED AT WHOLESALE OR RETAIL, BY

GEO. F. SILVESTER,
SEEDSMAN,

No. 317 Washington Street,

24v8-1f SAN FRANCISCO

THE BOOKWALTER ENGINE.

Effective, Simple, Durable and Cheap.

The want of a small Portable Engine and Boiler, so constructed as to be furnished at a price within the reach of every one, has long been felt. This has been accomplished in the Bookwalter Engine, an engine which for Effectiveness, Simplicity, Durability and Cheapness, can not be surpassed.

For processes requiring light power, such as wood-sawing, running cotton gins, elevators, printing presses or cheese factories, pumping water, a large variety of farm work, and in fact all light manufacturing purposes, this engine is expressly adapted, both in construction and cost.

Prices, delivered at the Railroad Depot, San Francisco:

3-Horse Power.....\$230 00
4½-Horse Power.....350 00

FOR SALE BY

AUZERAIS & POMEROY,
SAN JOSE, CAL.

San Francisco Land Agency,

E. L. SMITH & CO., Managers.

A Medium for the Sale of Every Description of Real Estate.

Office, No. 331 Kearny Street.

WANTED—DESIRABLE LANDS AND FARMS in every county of the Pacific Coast, at SAN FRANCISCO LAND AGENCY, No. 331 Kearny street.

WANTED—SHEEP AND SHEEP RANGERS For Sale at SAN FRANCISCO LAND AGENCY, No. 331 Kearny street.

EMIGRANTS INTENDING TO SETTLE IN Oregon or Washington Territory furnished with full information, free of charge, at SAN FRANCISCO LAND AGENCY, No. 331 Kearny street.

NOT WANTED—WORTHLESS LANDS, BAD titles or exaggerated descriptions, at SAN FRANCISCO LAND AGENCY, No. 331 Kearny street. E. L. SMITH & CO., Managers.

SEEDS. PLANTS.
OF EVERY VARIETY.

Fresh and reliable, such as experience and care only can select.

GRASS AND CLOVER SEEDS, KENTUCKY BLUE GRASS, HUNGARIAN, ORCHARD, ITALIAN RYE, RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL, CHOICE CALIFORNIA ALFALFA, WHITE CLOVER, RED CLOVER, ETC.

Also, RAMIE, JUTE AND TOBACCO SEEDS; together with a fine and complete collection of TREE SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGANTEA, PINUS INSIGNIS, ETC.

For Sale, wholesale or retail, by

B. F. WELLINGTON,

(Successor to E. E. MOORS).

425 Washington St., San Francisco.

22v7-1y

HEALD'S Business College.

No. 24 Post Street, San Francisco.

The largest and best Business College in America. Its teachers are competent and experienced. Its pupils are from the best class of young men in the State. It is under the very best discipline. Its scholarships are good in the Thirty-Six Bryant & Stratton Colleges. It employs four of the best penmen in the State. It has the largest rooms, the largest attendance, and the most complete system of business training of any commercial school in the country.

For information, call at the office, 24 Post street, or address, for circulars,

E. P. HEALD,

President Business College, San Francisco

SHOT-GUNS, RIFLES, PISTOLS, REVOLVERS,

Of any and every kind. Send stamp for Catalogue. Address: Great Western Gun and Revolver Works, Pittsburgh, Pa.

(IN PRESS.)

Manual of Jurisprudence and Co-Operation

—OF THE—
Patrons of Husbandry.

By A. B. SMEDLEY, Master of Iowa State Grange.

Published by Geo. M. JONES,

OFFICE OF PATRON'S HELPER, Des Moines, Iowa.

200 pages, bound in cloth.

By mail, postage prepaid.....\$1.25 per copy.
By express or freight, in packages of five or more.....\$1.00 per copy.

CONTENTS.**INTRODUCTION.**

The Origin of the Order. Its Objects: To Educate, Elevate and Strengthen the Farmers as a class.

PART I—JURISPRUDENCE.

I—The Grange. II—Grange Room. III—Qualifications of Candidates. IV—Applications for Membership. V—Balloting for Candidates. VI—Rights and Duties of Members. VII—Qualifications and Duties of Deputies. VIII—Qualifications and Duties of Masters. IX—Qualifications and Duties of Secretaries. X—Charges. XI—Trials. XII—Appeals. XIII—Withdrawals and Demits. XIV—Consolidations. XV—The Degrees of the Order Symbolized. XVI—Pomona Granges.

PART II—CO-OPERATION.

I—Co-operation in General Business. II—Co-operative Insurance. III—Co-operative Banking.

APPENDIX.

Forms for: Certificate of Membership—Petition of Membership—Commission of Deputies—Annual Report of Deputies on Business—Visiting Card—Withdrawal Card—Demit Card—Certificate of Election—Certificate to be used at Representative Election. Constitution of Pomona Granges. Forms for: Petition for Membership—Certificate of Election—Certificate of Organization—Petition for Charter—By-Laws of Grangers' Bank in California. Constitution and By-Laws of Co-Operative Council. Articles of Association, Farmers' Mutual Fire Insurance Company. Certificate of Insurance.

Deputies and Masters are earnestly requested to call the attention of their respective Granges to this book, to the end, that by its general use each officer and each member of our Order may better understand his rights and duties, and the Order everywhere may thereby be strengthened and built up, and enabled to perform its whole work and attain unto perfect success.

Address,

DEWEY & CO.,

Pacific Rural Press Office, S. F.
P. S.—For convenience, copies will also be delivered by I. G. Gardner, State Grange Agent, No. 6 Leidesdorff street, San Francisco.

IRON PIPE.**Pipe Fittings & Brass Goods,**

AT BOTTOM PRICES.

JAMES L. BARKER,

406 & 408 Market street, S. F.

HARDWARE AND METAL

Commission Merchant.

Orders by mail will receive prompt attention
mri3-cow-hp

Bronze Turkeys

12 Gobblers from 8 to 20 months old, 22 to 40 lbs each, for sale now. Hens 14 to 18 lbs.



Emden Geese

40 to 50 pounds per pair at maturity.

BLACK

CAYUGA DUCKS,

Games, Brahmas, Leghorns, Houdans, Bantams, etc.

Eggs, fresh, pure, true to name; well-packed so as to hatch after arrival.

For Illustrated Circular and Price-List, address

M. EYRE, Napa, Cal.

FERRETS.

RABBITS.

PIGEONS.

Please state where you saw this advertisement.

CALVERT'S



CARBOLIC

SHEEP WASH.

Sole Agency for California and Nevada

T. W. JACKSON'S,

416 Sacramento Street, San Francisco.

FOR SALE.

400 Pure Blood French Merino Rams,

On the Oristimba Ranch, six miles west of Hill's Ferry, Stanislaus County, Cal. All Rams delivered at the railroad, free of charge. Terms easy and prices liberal.

A. G. STONESEFER.

Dewey & Co. { 224 } Patent Agt's.
SANSOME ST.

CALISTOGA**REAL ESTATE COMPANY.**

Calistoga, with a population of about 800 persons, is a village watering place at the head of the valley of Napa, in California. It is four hours' travel north of San Francisco by steamboat and rail.

Its shipping port is Vallejo, on the bay of San Francisco, forty miles distant by rail. It lies at the head of the most charming valley in the State.

THE BEAUTIES OF NAPA.

In traversing this thirty-seven miles of fertile dale, the eye never wearies. If one ascends the sides of the leafy mountains that bound the valley on either side, whether looking up the valley or down, and from whatever point of view, the scene is one of ravishing beauty.

Mounting the summit of St. Helena, which towers over all, far to the east the snowy Nevadas bound the view; and to the west spreads the Pacific ocean, with its winged ships and its blue horizon. To the north are the vast forests of Mendocino, its stately trees, urned to shrubbery and Clear Lake in its pride of xpanse dwindled to a mill dam.

THE WARM SPRINGS.

From the beauties of Calistoga we turn to its other attractions. The estate covers 2,000 acres of fertile land. Its warm springs are crowded with invalids, who flock to its healing waters, and who return cured of their rheumatism, their dyspepsia, their torpid livers and their tender kidneys. The medicinal elements of the hot springs are principally iron, magnesia and sulphur. In this climate, the season of watering places is prolonged.

THE SURROUNDINGS.

By consulting a map it will be apparent that Calistoga is destined to become a commercial town of importance. It is the center to which converge innumerable highways leading to many of the richest cultivated valleys of California.

INDUSTRIAL ENTERPRISES.

A new industry is now being introduced at the head of the valley of Napa, which will give easy employment to all the boys and girls, and contingently it will support other new industries. It is but the beginning of many others. Three miles below Calistoga is selected as the site of a large factory for saving and canning fruits and vegetables, and for the production of more. In no part of California can these healthful elements of human food be cultivated more cheaply or more abundantly. Considering the depth of its rich soil, its prolonged season, and the extraordinary vegetable growth in this country, one acre may be considered equal to three wherever this industry is carried on in the Atlantic States. If irrigation be wanted, artesian waterflow may surely be found all along the valley, for it is backed by mountain ranges full of living waters.

MINES:

GOLD AND SILVER AND QUICKSILVER.

Calistoga is the center also of a great mountain range rich in mines of cinnabar and silver. Already its furnaces are producing mercury, and the product is increasing yearly. A number of valuable mines are now being profitably developed in the region around the base of Mt. St. Helena, at Pine Flat, on the Great Geysers road, and near Sillies' Mill, on the Clear Lake road. All of these are from ten to fifteen miles beyond Calistoga, to which point their products come, and from which their supplies are earned. The deposits of cinnabar occur in well defined veins, and as they are now being scientifically developed they bid fair to rival in productiveness the celebrated mines of New Almaden.

CALISTOGA REAL ESTATE CO.

The splendid property above described, containing 2,082 acres, divided into town lots, suburban lots, country seats, hotel property and farm tracts, has been bought by the above named company, and is now offered for sale to the public.

The Capital Stock of the Company is
\$1,000,000,

Divided into 20,000 Shares of \$50 Each.

The sale of a certain number of shares has been authorized by the Board at the rate of

Twenty-five Cents on the Dollar, Making
12.50 Per Share.

By an arrangement between the former owner and the present company, no portion of this land or the proceeds of its sale, is consumed by expenses or in even the smallest degree diverted from the use and benefit of the stockholder.

Whoever buys Stock in the Company receives his pro rata share of this property, with its Crops and Rents in the meantime, without one cent of deduction for expenses of any kind, even including Taxes. And this, too, no matter how valuable the property shall become.

Unlike the bonanza schemes which have heretofore attracted our people, this plan gives homes and interests in and adjoining a town already built; where trade and growth are already assured, and where daily increase gives promise of greatly added values to all its property. It is a division of this ripened heritage that is now offered to the subscribers.

TRUSTEES:

E. W. BURE,
President Savings and Loan Society.

C. HARTSON,
President Bank of Napa.

B. FRISBIE,
President Vallejo Commercial Bank.

JULIUS WETZLAR,
Pres. Capital Savings Bank, Sacramento.

COLONEL J. P. JACKSON,
San Francisco.

WILLIAM H. MARTIN,

GENERAL AGENT,

Cor. Webb & California Sts., San Francisco.

PACIFIC RURAL PRESS

Volume IX.]

SAN FRANCISCO, SATURDAY, APRIL 17, 1875.

[Number 16.]

Mechanics' Institute — Tenth Industrial Exhibition.

The annual exhibitions under the auspices of the Mechanics' Institute of this city have become among the most notable events in our local history, and every succeeding year are looked forward to with increasing interest. Each exhibition surpasses the preceding in the number and value of articles displayed, and the popular interest is evinced by the increased attendance which marks its occurrence.

The opportunity offered by these exhibitions for making known the great value of our natural productions, and the skill achieved by our artisans and mechanics in utilizing them is manifest, and one that is not lost sight of by our manufacturers, miners and agriculturists. Last year the increased demands for more room and larger facilities resulted in the erection of the mammoth pavilion in which the ninth annual exhibition was held. This building, situated on Eighth street between Mission and Market, is, we believe, the largest devoted to a like purpose in the United States, and will have its only equal in the structure to be erected in Philadelphia to mark the centennial of our national existence.

The pavilion as originally constructed has a frontage on Mission street of 201 feet, and the same on Market. The length of the building is 541 feet on Eighth street. It contains 6,287,000 cubic feet of space between its walls, has four acres and a half of flooring, and cost upwards of \$100,000 in gold. To this mammoth structure there is now being built on the north side an addition to be known as the Horticultural Garden. At the last exhibition the horticultural and floral display was arranged in the side of the pavilion at the right of the entrance in front of the department especially devoted to machinery. Although the display in both these departments was creditable, the management felt that each was more or less trenching upon the other, and consequently have reserved all the lower portion of this side of the building for machinery, giving two hundred feet additional for that department, the shafting being extended the whole length, affording vastly better facilities, which, no doubt, will be duly appreciated by our manufacturers, and result in a much finer display than in any previous year. The Horticultural Garden is an addition two hundred feet in length by a width of seventy-five feet. The sides are constructed of wood, but the roof, instead of being like the pavilion proper, is covered with canvas stretched upon the arched timbers. This arrangement is believed to be in many respects superior for the purpose for which the Garden is designed. Although not nearly completed, progress is far enough advanced to afford an idea of what the visitor will realize when he comes to see the interior prepared for his reception. A broad entrance from the pavilion leads into the Garden. Fifty feet of the front, extending the entire width, is paved with tile of varied tints, and will be set apart more especially for the pomological and floral display; the fruit, cut flowers, etc., being placed upon tables arranged for the purpose. A descent of two steps and the main walk dividing passes around a circular enclosure, in the center of which a fountain will be located. Other walks are being laid out, fountains and rockeries arranged, and the whole interior beautified and adorned with the choicest shrubs, plants and flowers. The Garden will be under the direct control of the Institute, and to give the public an idea of what they may expect, it is but necessary to add that the plan of arrangements is the work of Mr. A. P. Hall, the well known landscape architect, and that Mr. R. B. Woodward is Chairman of the Committee in charge. The additional space under cover acquired by the construction of the Garden is 24,500 feet. Three thousand square yards of canvas will be used for the roof.

Last year the exhibition was attended by 700,000 visitors, and there is reason to believe that the number will be nearly doubled at the one this season, and a good portion of these visitors will be new-comers. It is therefore for the interest of our producers and manufac-

turers to exert themselves to make a display which will be a credit to them and to the resources of our State. It has been decided to award premiums to exhibitors as follows, viz.: 16 gold medals, 50 silver medals, Society diplomas, certificates of merit, and special premiums as the Board may determine.

The exhibition will open on the 17th of August at 11 A. M. Mr. J. H. Culver, the courteous and competent Secretary of the Institute, is prepared to receive applications for space and afford information to parties interested.

Implements for Haymaking.

We give to-day further illustrations of popular agricultural implements. Fig. 1 represents Foust's Hay Loader. This machine loads from the winnow, and is warranted to be capable of elevating a ton of hay in from three to five minutes. The speed with which it operates enables the farmer to secure his hay crop in a far shorter space of time, while it greatly modifies the severity of the task of loading hay

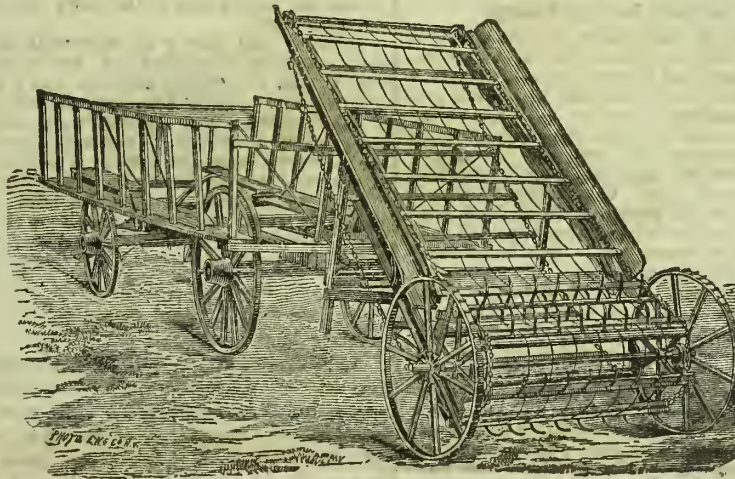


Fig. 1. FOUST'S HAY LOADER.

He may be addressed, or can be seen during business hours, at his office, 27 Post street.

We earnestly hope that the tenth annual exhibition of the Mechanics' Institute may prove a worthy reflex of the wonderful growth and

prosperity which marks the career of the Golden State. The loader is comparatively a novelty in the hay-field, but its merits are rapidly becoming recognized by farmers, and it will undoubtedly soon be considered as indispensable as the horse rake.

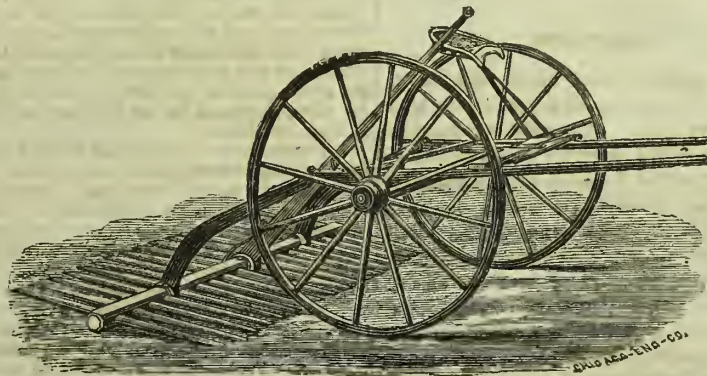


Fig. 3. SULKEY REVOLVING HAY RAKE.

prosperity which marks the career of the Golden State.

AMERICAN POMOLOGICAL SOCIETY.—We have received the circular of this society, giving notice that the fifteenth session of this Nation-



Fig. 2. Hay Loader at Work.

al Association will be held in Chicago, commencing Wednesday, September 8th, and continuing for three days. We will publish the circular in our double sheet, May 1st.

PETERSEN'S PATENT BEE HIVE.—We would call the attention of the readers of the PRESS to the advertisement of Petersen's Hive, in another part of our paper. The merits of this hive have been fully set forth in former numbers of this paper by illustrations and elaborate descriptions.

What the Frost Did.

Scarcely a month has passed since the people throughout the State were seriously alarmed at the discouraging prospect of the grain crop. All anxiety in this direction is thoroughly dispelled, but solicitude of almost as serious a character has prevailed for the last ten days concerning the fruit crop of the season. Potatoes, beans and some other crops, have also suffered to some extent, but it is through our vineyards and orchards that the public are at present most anxiously tracing the foot-prints of Jack Frost.

For the first few days succeeding the recent frost it was supposed that apples and pears had escaped all injury; later reports, however, are less favorable, and even these fruits have undoubtedly been more or less injured. Grapes, peaches, apricots, nectarines and cherries have suffered severely. Of these, apricots have apparently been most unfortunate. We have heard of one grower who makes this fruit a specialty, shipping large quantities in ordinary seasons, who reports that this season he will not have a pound of apricots. Grapes, especially in the early pruned vineyards, have in all districts suffered to some extent; some growers estimating the loss at 60 per cent. Cherries and nectarines will also yield a small percentage. It was supposed that the strawberry crop was effectually cut off, but fruit dealers inform us that they are receiving assurance that the market will not want for this fruit.

The frost was particularly severe and destructive in the foothills. Fruit is getting to be an important product in some of these localities, and the loss will be quite serious there. Some fruit-growers estimate the damage throughout the State by this unprecedented freak of the weather, at \$2,000,000 to fruit alone.

Almonds and other valuable nuts are also seriously damaged.

GRAPE VINES AND TOBACCO.—"Subscriber" wishes to know "what is the estimated number of acres planted to grapes in California, do. of tobacco; and what is the average yield per acre?" The constant and rapid increase of area given to these products renders it impracticable to give any reliable estimate of the present amount. In regard to the yield per acre of grapes we would state that it varies from one to six tons, according to locality and varieties grown. If any particular locality or kind of grape had been given, a pretty close estimate could be formed; for instance, the Mission grape grown in the locality written from—Anaheim—would, with proper culture, produce four tons to the acre. If more valuable varieties are desired a reduction in yield must be expected. The yield of tobacco also varies considerably according to variety. The high priced Havana tobacco produces less per acre than the less valuable Florida. The range of the tobacco yield per acre in California is from 1,000 pounds to 1,600 pounds.

CURE FOR BLOAT IN CATTLE.—Mr. I. C. Steele, of Pescadero, says that feeding dry hay to cattle bloated from eating green clover is a very satisfactory remedy. The stock should have access to the hay during the daytime, and when affected they should be kept out of the sun, as heat increases the gas which causes the bloat. By this remedy the savage custom of puncturing the animals is avoided. Messrs. Steele Bros. lost as many as twelve cows by bloat, sometime since. Within a few days past, six cows were lost by the same difficulty.

JUDGMENT from testimony furnished the Contra Costa Gazette, the "suffocating carriages" have proved a dampener to the squirrels in that section. It is said that none of the holes covered when the carriages were applied have been reopened.

The Visalia Times says that some parties are cutting one of the big trees in the Tulare grove, 30 feet in diameter and over 300 in height, for exhibition at the Centennial.

CORRESPONDENCE.

[The RURAL PRESS, in opening the columns of this department to its correspondents, does not desire to lay before its readers anything which is not in keeping with its character and position as an agricultural and family paper. Facts are always thankfully received; and suggestions and criticisms on subjects connected with agriculture are also acceptable; though correspondents are to be understood as speaking for themselves and not for the PRESS.]

San Jose Industries.

MESSENGERS. EDITORS:—In a former communication I referred to an inquiry that had somewhat excited the minds of our fruit growers for the last few years, to-wit: "What shall we do with our fruit?" and I hinted that the friends of the Alden fruit preserving company and other patented processes for drying fruit claimed that they were solving that vexed question to the satisfaction of all concerned.

I now refer to another question that has been raised and discussed by many of our coast papers for the last few years—"What shall we do with our boys?" I do not now propose discussing this question, except so far as the increasing and encouraging of home manufactures might affect the subject.

Many of our boys are growing up in comparative idleness from the difficulty of procuring regular and profitable employment, thus forming habits which must in a great measure effect their usefulness and success in after life. Nor do I refer to that class, alarmingly numerous, generally known as hoodlums, who have already formed such habits of idleness and vice as almost to preclude any hopes of their reformation; but to boys and young men who would like to work if they could find anything to do suited to their tastes and abilities. A young man who has learned a trade—who has worked diligently long enough at some one branch of mechanical business as to make him a competent master of it—has acquired something more valuable, with the habits of business thus formed, than a trade would be without any such business habits. The increase of home manufactures would have many beneficial results. It would encourage industry and increase population; create home markets for our farm products; keep our money in circulation at home instead of sending it away to build up other communities; and it would open up many avenues of industry and usefulness to our young men who wish for employment. Thus I see what we can do to increase our home industries; and I know of no more practical way of doing this than by patronizing those we already have. Thus, we may not only encourage and help those already in business, but we may encourage the establishment of manufactories of other kinds, much needed on this coast.

In my rambles about San Jose and Santa Clara I had the pleasure of visiting several shops and manufactories worthy of some notice.

That of E. H. Davies, on the corner of Liberty and Jackson streets, Santa Clara—manufacturer of steam engines, flour and saw mills, windmills, pumps, artesian well tools, and machinery of all kinds—has been established and in operation for several years. Mr. Davies is a thoroughly practical mechanic and inventive genius of a high order. Many of his most useful, ingenious and labor-saving tools and machines are of his own invention and manufacture. His workshop is a perfect model of neatness and economical arrangement. He has a profusion of the most perfect tools, and all in tip-top order. He has fixtures and machinery for making or repairing, in the best manner, almost everything wanted on the farm, in the orchard, garden, or the workshop. If you want to see a model workshop, call on Mr. Davies, of Santa Clara.

And while in Santa Clara call on Mr. Jacob Eberhart, at his extensive tannery, in the eastern part of the town.

Mr. E. is tanner, currier, and wool-puller; manufactures harness leather, skirting, sole leather, alum leather, calf, kip and sheepskins. He also manufactures beautiful carriage robes of Angora goat and other skins. His bark mill and other machinery is propelled by the same steam power, and the arrangement of his yards, workshops and machinery, is of the most complete order. He employs about thirty men, and he uses up about 160 hides and 500 sheep pelts per week. He also renders about fifteen tons of tallow per month. Mr. Eberhart finds a ready market for nearly all of his leather in California. Occasionally, however, he makes a closing out shipment to the Eastern cities.

New Box Factory and Spice Mills in San Jose. Mr. Albert Lake, box manufacturer, and Hunt & Priest, of the Eagle coffee and spice mills, have put up a large two-story building on Fourth street, between St. James and Julian streets, for the purpose of carrying on both branches of these industries on a large scale. Mr. Lake, who has had the advantage of several years experience in the box business in this city, has selected such machinery and gotten up the whole working arrangement of this branch of the business, in the most approved and satisfactory manner. The company are now receiving large shipments of lumber from Oregon and the Sierra Nevada mountains, suitable for their business. They have all the ma-

chinery necessary for planing, sawing and fitting lumber for all kinds and sizes of fruit chests, boxes and crates. This gives employment to a large number of hands. Although they have been in operation but a short time, they have on hand, ready for customers, immense piles of strawberry chests, rhubarb chests, asparagus crates, besides fruit boxes of all kinds and sizes.

The arrangement and management of the Eagle coffee and spice mills are under the direction of Mr. C. A. Huat, who has also had much experience in this branch of the business.

In the second story of the factory are located the coffee roasters, the coffee and spice mills, and other machinery used in this branch of the business. Closs covered bins for holding the ground coffee and spices are located here, just above the packing and sales-room below, fronting on Fourth street. Tunnels or pipes are fixed for conducting the contents of the bins down to the counter in the packing room, convenient for filling packages ready for the market. The same engine propels both the machinery of the box factory and spice mills.

Mr. John Balbach's carriage and wagon shop, on the corner of Second and Fountain alleys, is a busy place. Mr. B. is one of the oldest and best known mechanics of San Jose. In 1849 he commenced business, his being the first wagon making shop ever opened in the place. He now owns and occupies a large two-story brick shop, as above located, well arranged for carrying on the different branches of his business. We found about sixteen hands employed in the several rooms, working up to about the full capacity of the shop, with plenty of orders for work on hand. Mr. B. uses only the best materials in the manufacture of his wagons, carriages, buggies, etc., and all of his work is warranted to give satisfaction.

The Pacific Carriage Factory.

Harman & Normandin, manufacturers of carriages, wagons and buggies, near the corner of Second and San Fernando streets, San Jose. Although it is but a short time since these gentlemen commenced business in their new factory, we are glad to learn their prospects are most encouraging, and they are receiving many orders for their home-made carriages and buggies that they intend shortly to increase the capacity of their workshop. None but the best workmen are employed. All their work is warranted to give satisfaction, both as to quality and price.

Two miles north of the court-house, on First street, San Jose, is located Mr. J. Johnston's wheat starch factory. The building is a large three-story frame, well arranged for the business, and is abundantly supplied with the purest water from a roag flowing from a well. Mr. J. uses only the best and white California wheat in the manufacture of his starch; and as our wheat possesses peculiar qualities for this business, superior to that of the Eastern States, no imported starch, either from corn or wheat, can equal it in beauty and economy. Mr. Johnston being the pioneer in this business on this coast, is every way worthy of the patronage of those who would support home industries.

I will have something more to say in a future number about other manufactories.

Mack.

Co-operation.

The true starting point for co-operation is the home. A well regulated family has been called a model state. As society advances we see less disposition to centralize all the different powers, judicial, financial and executive in the legally responsible head; indeed, man loses his fondness for arbitrary power in proportion to his development out of the savage state. Children ought to be trained in habits of self-respect, self-command and self-support, and this cannot be done unless responsibilities suited to their years are given for their free exercise. This is rather a round about way of getting at my subject, which is—that many a farmer's child, and many a farmer's wife who hears her husband talk about monopolies and monopolists have a lurking suspicion, growing out of their experience, that he is a very good specimen of the monopolist himself. They hear a good deal oftener what he is worth, than what they are worth to him; sometimes they are made to feel themselves a burden.

Most men would be surprised to know how long a shrinking, self-denying woman will wait for something indispensable to her own or her children's comfort, before she will ask for money.

Many fathers would be grieved if they knew the makeshifts to which boys resort, (often there are no many open doors to temptation), for want of some open, honest way of providing themselves with a little money to spend as they please. I am satisfied that these things are the result of thoughtlessness on the part of parents. A man naturally feels that he must "bear the brunt," and the income must be carefully watched, that wife and children may not see the wall at the door, and in overzeal for this, lets in a whole pack of evils. Then there is custom—always fortifying an old abuse, or placing obstacles in the better way.

When a child is old enough to render any intelligent service, this ought to receive adequate recognition, and he should be made to feel himself an element in the productive wealth of

the home. "We could not have had such a nice breakfast, if Billy had not made the wood so nicely ready for a quick fire"—the mother says, as she puts the savory dishes on the table, and Billy straightens up, and feels himself of consequence all day. Perhaps the father surprises Billy with a half dollar for cleaning the harness, or repairing some tools, or for an extra long chase after a missing animal; nobody can make Billy feel that his father puts off hateful jobs upon him—demanding such service as a night, if he has a good understanding of the value set upon his work. These recognitions need not be in money, necessarily—though I think children learn to use money to the best advantage early, under the eyes of parents who trust them, and are wise enough to encourage, rather than chide inevitable mistakes of judgment. "Pat yourself in his place," should be written upon every parent's heart.

If I were a farmer, I would give every boy and girl something to raise, which they might enjoy the profits of; the girls could have fruit, berries, strawberry beds, berries, poultry, herbs for drying (I learned many a lesson of the Shaker sisters at Mount Lebanon); the boys, colts, calves, sheep and farm crops. It should be understood that this must not interfere with regular school or family duties. It should be play-work to earn the wherewithal for greater pleasure. I would treat my children in these matters in the most scrupulous and exacting business way, without any indulgence—leaving them to get the lessons of their mistakes, just as they will have to do in the outside world.

How well I remember the pretty "bossies" certain New England children petted and called their own! As regularly as the seasons came round we were indulged with the pleasing fiction of ownership, and only when we grew wiser did we realize that to have a new calf given us in place of the better sold, or the better "come in," and added to the dairy herd, did not enrich us.

The boys had their colts appraised in fee simple, and the colts grew into horses for the boys to ride, but we girls grew up with neither cows nor the money which represented them, in our own possession. A hint on this subject is as good as a sermon. I venture to say that the father who runs his family on the true co-operation principle, from the time the wee things toddle after him to his barn until they are ready to fly the parent nest, will never have reason to complain that they won't stay on the farm, until they are forced to colinize.

J. C. C.

From Napa County.

MESSENGERS. EDITORS:—In our tranquil community there are not many events of an exciting nature, but occasionally some local question arises which to ourselves is of immense interest. For some time past—in fact, since the first opening of the valley, the railroad topic has been one of increasing interest, as the need of it has been more keenly felt from year to year.

At last a motion is on foot to build a good wagon road through Patah canon, which is the natural outlet of the valley, to connect with the railroad at "Winters." The survey has already been made. The distance will be about fifteen miles, all on a down grade, thus shortening the road one-half from the present route, which you will perceive will be of very material aid to the farming community here, being a decided improvement on the present long mountain road to Napa.

It is with sincere regret that most of the old settlers here contemplate changing their pleasant associations with the Napa people, with whom they have been connected in business transactions so long, but the heavy tax on hauling grain such a distance is felt so keenly that it has become necessary to build a better route, which can be done through Patah canon, in time to haul off the coming crop of grain.

From present indications there will be heavy crops of grain here this season; the late sowing suffered some from severe frosts and continued north winds, but the recent grateful showers have revived and refreshed the crops, and the whole face of nature seems to smile in a veral beauty. Just while I write the welcome dripping of the rain falls with a continuous and dreamy sound. It brings a prophecy of abundance and prosperity to a country highly favored by the gifts of providence. POMONA. Berryessa, March 28, 1875.

Los Angeles and Spadra.

[From our own Correspondent.]

MESSENGERS. EDITORS:—In the vicinity of El Monte, from which my last was sent, there is a considerable body of excellent land. A very considerable portion of it is of a damp nature, needing no irrigation. It produces very fine corn, say from 30 to 100 bushels to the acre. Small grain does well, also. We notice some fields of good barley and rye. One gentleman thought he would be able to cut four tons of hay per acre from his barley. Hay here at \$10 per ton is more profitable than grain, owing to the cost of shipping the latter to market. On the dry plains, where grain grows well in favorable seasons, the crops are suffering for rain, and the prospects look gloomy.

Spadra.

The present terminus of the railroad extending eastward, is situated in a beautiful narrow valley, of many miles in length. Considering the dry season, everything looked green and lovely;

a good rain, however, would help them here, and in fact almost everywhere in the country.

Both at Spadra and El Monte the traveler will find good hotel accommodations. Good schools and many good friends of the RURAL PRESS abound in the plains and the valleys around. This is not to be understood as an exceptional case. The school house is to be found everywhere where there is a settlement. When a village is laid out or a colony located, a school house is built immediately, as recently at Artesia and Indian Colony. It is good sense; it is policy; it is good for the country, whatever the motive may be.

Before closing this note I had intended to give some facts in regard to the workings of the co-operative Grange store, at Los Angeles, under the management of your friend, Mr. J. H. Seymour. His hands were so full that he had no time to give me any details. From personal observation, and from information gleaned from disinterested persons, we think it safe to say that it has proved an entire success—a benefit not only to the stockholders, but to the community at large. They do an immense amount of business. I hope to be able to give facts and figures in future.

April 3, 1875.

A. C. E.

The Land Owners' Canal and Ditch Co.

MESSENGERS. EDITORS:—Permit me to state, through your journal, what action has been taken by eight Granges on the west side of the San Joaquin river in regard to irrigation.

Each Grange has appointed a committee of three, who have the privilege of selecting a fourth outside of the Order, making in all a convention of thirty-two, and who are to meet at Graysonville, April 20th, 1875, and take action on the following suggestions, which were first considered and approved by West San Joaquin Grange, No. 3, and afterwards by the others referred to above:

1st. That the land owners on the west side of the San Joaquin river form themselves into a company, to be known as the Land Owners' Canal and Ditch Company, for irrigation, navigation, manufacturing and mining purposes.

2d. That said company elect a Board of Directors, whose duty it shall be to take such action as shall immediately secure the survey and location of said canal from Tulare Lake, or some point to be selected in the future, to Antioch.

3d. That said Board in this survey include all the water, that can be secured and used on the west side of the San Joaquin, from Hill's Ferry to Summit Lake.

4th. That said Board, after ascertaining what the building of such a canal will cost and how much land will be irrigated by it, shall make an estimate of the cost per acre.

5th. That said company petition our next Legislature to pass an act authorizing said Board of Directors and their successors in office to levy a tax annually on the land irrigated sufficient to pay one-tenth of the cost and the annual interest on the cost at a rate per cent, to be determined. Said tax to be levied and collected as all other State taxes are. Said act of Legislature to be subject to the approval of the legal voters in the district irrigated.

6th. That said Board shall issue bonds to the full amount of cost for fifty years, the interest and one-fifth of the principal to be paid annually until paid in full.

7th. That the Legislature grant to said company a charter of all the waters above named.

8th. That said canal shall forever be owned by the owners of the land that is taxed to build the canal, and that the profits accruing from canal shall be divided among said land owners in proportion to the number of acres owned by them.

W. B. H.

Ellis, April 6, 1875.

Crops in Los Angeles County.

MESSENGERS. EDITORS:—Thinking you would like to know how crops are looking in this county, I will state they are poor; and present prospects are far from being as favorable as they were some four weeks ago. The cold weather has kept them back, and now the north winds are drying the ground very fast. In the vicinity of San Fernando there will be a few fair crops, also around Spadra; but from what I have seen, I do not think there will be over one-half crop in this county. Rain fell here yesterday, but in one hour the north wind had dried the ground, and dust was flying in clouds. Very few orange trees have blossomed yet this season, and in conversation with farmers in this county, they seem to be dependent, and say they think rain cannot do them much good this season.

I shall start back in a day or two, and will give you an account of what I may see along the road overland towards home. I will say the farmers are brave, and some try to believe they will have a crop, yet all say the counties above here are better than this farm in; and many who have farmed in Sonoma, Alameda and other counties, say those are the places to farm. This may do for fine homes and orange groves, but not for large farms to raise grain.

S. P. DOANE.

Frost in the Foot-Hills.

EDITORS PRESS:—It is almost in sorrow that I write of the grand failure in fruit, owing to the unmerciful Jack Frost. We had a snow storm throughout the foot-hills of old Tuolumne, and which extended to a great portion of the plains. The snow might have been welcomed as a friend in need, if the frost had not come upon us the same night, freezing the water to a half an inch. The blossoms being wet and the trees made heavy by the weight of snow, the frost had it all its own way. The shade trees putting forth their foliage were nipped as if scorched by a simoon. The fig trees were the same way; first crop all gone. Beans, cucumbers, squash and in fact, every young and tender leaf went by the board, so you may judge what chance the fruit trees had that were all in full bloom. Cherries, apricots, peaches, apples not quite so bad, and whatever vines were out in leaf. My shade trees appear as if they never would come to life again. Around Sonora and Columbia the destruction is complete. Those who have an extra supply from last year had better hold on, for surely there will be a short crop, even if it is not so bad as represented.

So much for the evil of the storm and frost; on the other hand, the parched earth required the moisture, and to the growing crop it was invaluable. What is one man's loss is another's gain. Some portions of California are certainly free from frost-blight, which will still supply the San Francisco markets. The enhanced prices will remunerate the lucky growers, and give an impetus to fruit growing outside of Jack Frost's kingdom. This seems to be an exceptional year with the foot-hills. Our supply last year was almost inexhaustible. Where the fruit came from which daily passed over the road to find a market was quite a problem to solve, but next fall the question will be easily accounted for. Nature took the problem in its own hand, and answered it in one night of blight. J. T. Mt. Pt., April 8, 1875.

THE DAIRY.

Prospective Dairy Values.

It is one of the fundamental theories in systems of political economy that in production the productive ability will tend toward the profitable specially so far as possible. This tendency has been at work toward supplying the profitable demand for dairy products ever since the English markets were open to the American article. A dozen States have devoted a part of their agricultural ability to this end. Canada has proved a giant in dairy manufacture. The exports of cheese from New York city have grown from 15,000,000 pounds in 1860 to 89,000,000 pounds in 1873, and yet the dairymen have had a year of unusually high prices and evidently the demand is not yet supplied. The student of political economy cannot find an interesting matter for examination in this wide effort of productive ability to fill the demand for a specialty, and the demand still beyond the result of the effort. The plain indication of existing trade facts is that the manufacture can go farther with profit to those engaged in it. Of course it takes longer to increase the supply of an animal product like milk than a bread product like wheat. A field may be changed from one grain to another in a year but to make pasture and grow dairy cows and build factories, takes several years. And it has been several years since the tendency toward cheese making began. It has reached an extent which would have swamped the demand for almost any other specialty whose production was increased in like proportion, and we may say that the industry has passed the time when according to ordinary computations the supply should have exceeded the demand. It has gone along prospering and to prosper, while other agricultural specialties have risen and fallen time and again. Hops have undergone a number of revolutions, the price of wool has covered the hills with sheep and then sent them all to the butcher, pork has been profitable and unprofitable, grain has fluctuated between riches and poverty, but the dairy product, in spite of the constant and enormous accessions to the ranks of producers, has moved steadily onward without anything wide enough to be called the shadow of a disaster. These are the facts of the manufacture as we look upon them from the trade. Now what do the facts indicate.

The late writer upon political economy, Prof. Carnes, remarks that the fluctuations of the market price of a commodity within the sphere of agricultural production have been found to vary differently according as it has been drawn from the vegetable or animal kingdom. The vegetable product is liable to sudden and considerable, but comparatively short fluctuations, while the commodities of animal origin rarely rise rapidly, but when an advance is established, it is commonly held for a long time at the increased rate. Thus the price of wheat in England has halved and doubled within a few years, but there has been no such sharp fluctuation in a commodity of animal origin.

Butcher's meat has shown the most marked advance in price but he believes that the value of gold should fall by some unexpected occurrence there is not the smallest probability that the price of meat will ever return to what it was twenty years ago.—*Utica Herald.*

SHEEP AND WOOL.

Splendid Prospect for Sheep.

We do not remember ever to have known a season presenting at this time of year so good a prospect for sheep as is presented in this State at the present time. Our stock sheep are, in all portions of the State, in excellent order, and unless great and very sudden changes, which can hardly be expected, take place, they will continue in good condition through the winter. The promises of these considerations are that we will not only not lose many sheep this winter, but that the increase will be unprecedented in numbers and quality. Nothing can prevent this result but severe cold weather and neglect at the time of lambing. The farmer of these causes our sheep men have no control over, but as to care they have complete control if they choose to look after their own interests, and prepare for the season of lambing. The ewes will be in good condition to give quantities and a good quality of milk, and if the lambs are looked closely after when young, will make quick and rapid growth, conditions necessary for perfect animals. Let preparation be made, then, for all the necessary care, for in case of bad weather the greater percentage of lambs saved will compensate for the necessary expense, and in case of good weather and a successful increase of the flock, the expense can well be afforded. The prospect now is that the flocks of the State will very nearly or quite be doubled within the next three or four months. This will very materially increase the next fall clip of wool, and add greatly to the wool product of the year.—*Sac. Record.*

The Wool Market.

NEW YORK, April 10.—The wool market during the week has been in a very unsatisfactory condition, owing almost wholly to the utter stagnation in goods. Dealers show no disposition to operate beyond the daily requirements of the trade, predicting a dull market with low prices for some months to come. Fall California is a trifle firmer, but no higher. Spring continues firm at previous quotations. In Foreign there is but little doing; in fact, no description is actively sought after, but prices remain quite steady. Sales for the week include 357 bales Fall California at 14@23c; 44 do. Spring do. 22@34c; 15,000 lbs. scoured do., 67½@69c; 1,000 lbs. black, 27c; 125 bales Australian, part at 52@52½c; 100 do. Cape, at about 35c; 40,000 lbs. Oregon, 40@42½c; 10,000 lbs. Western Texas, 28c; Eastern do. 33½@35c; 20,000 lbs. coarse do. 20c; 70,000 lbs. fine Ohio fleece, part at 53c; 5,000 lbs. Delaine do. private; 150,000 lbs.; super pulled, 48c; 18 bags No. 1 do. 37c; 100 do. X. on private terms.

Boston, April 10.—There is no material change in the wool market since last week. The demand has been fair, and prices steady, with no great pressure on buyers. Medium fleeces and combing, and delaine fleeces are so scarce and so much wanted that all available lots are readily taken at full figures. The sales of fleeces have been rather limited the past week. Transactions in California wool have been fair, comprising 255,000 pounds, nearly all of which was Fall wool, at 18@20c. The latter price was obtained for a fancy lot lately received, and is no criterion of the market. The principal sales of Fall have been in the range of 20@22c, and the prices include good average lots of this description. A lot of Spring wool sold at 33c.

Statistics of California.

From a valuable table published in the *Resources of California*, we take the following figures, illustrative of the condition of the State in 1874. As remarked by the Resources, nearly all these figures are at least fifty per cent. behind, as they are the returns of the County Assessors, which are always a long way behind the mark. The estimates as to population are made by the Surveyor-General himself, and are therefore nearer the truth; but in some instances there is no doubt that they might be added to with entire safety.

The number of acres of land inclosed is given at 6,262,634, and the number cultivated at 3,366,716. Of these last the lion's share is claimed as being under Wheat cultivation, the acres occupied by that cereal last year being given as 2,128,615. The estimate of production however gives less than fourteen bushels to the acre, only 28,784,571 bushels. This of course is glaringly incorrect, and the addition of fifty per cent. may be made to it without much risk of error, for the last year's crop as a whole was a good one, and in some instances thirty-five bushels per acre were returned. The number of acres under Barley are given at 496,217, and the production at 11,063,564 bushels. The acreage of land sown under Wheat and Barley this year is given at 2,178,362, and 473,175 acres respectively, but we think that both these figures are slightly under the mark. The acreage under Oats in 1874 is given at 74,729 acres, under Rye 3,121 acres, and under Corn, 39,594 acres; Buckwheat is credited with 231 acres; Castor Beans, 136 acres; Flax, 2,604 acres; Tobacco, 625 acres; Peas, 2,622 acres; Peanuts, 375 acres; Beans, 6,504 acres; Potatoes, 24,704 acres; Sweet Potatoes, 1,466 acres; Onions, 912 acres; Hay, 454,518 acres, Hops, 847 acres, and Cotton with 593 acres. The production of Oats is given at 2,077,804 bushels; Rye at 52,144;

Corn, 1,307,679; Flax, 1,405,080 pounds; Tobacco, 1,071,030; Cotton, 204,745; Buckwheat, 5,597 bushels; Peas, 78,075; Peanuts, 287,954; Beans, 162,379 bushels; Potatoes, 183,009 tons; Sweet Potatoes, 6,236 tons; Onions, 881,052 bushels; Hay, 566,144 tons, and Hops 899,660 pounds.

The production of Beets is given at 10,076 tons; that of Butter at 5,822,097 pounds; Cheese, 1,722,328; Wool, 19,533,813, one-half of the real production; that in Hives of Bees is 22,537 pounds and that of Honey is 1,579,388 pounds. Of Fruit trees there were: Apples, 1,579,388; of Peaches, 958,875; Pears, 332,199; Plums, 289,975; Cherries, 180,958; Nectarines, 45,894; Quinces, 37,860; Apricots, 153,474; Figs, 62,360; Lemons, 13,606; Oranges, 90,057; Olives, 11,794; Prunes, 22,350; Mulberries, 290,720; Almonds, 160,070, and Walnuts, 105,359. Of Grape vines there were reported 30,196,429, while the number of gallons of Wine made were given at 3,858,027, (not much over one-third the real quantity,) and those of Brandy 175,944 gallons.

Of Distillers in the State there were reported 200, producing 1,347,700 gallons of Spirits, and of Brewers, 144, producing 4,386,572 gallons of Beer. The returns of Live Stock given are as follows: horses, 243,711; mules, 23,529; asses, 1,097; cows, 302,356; calves, 164,224; beef cattle, 182,796; oxen, 47,793; neat cattle, 794,037; sheep, 4,898,001; cashmere and angora goats, 26,205, and hogs 219,939.

The number of Grist Mills in the State run by steam were 83, and run by water 69; the Flour made, 1,714,218 barrels, and the Corn ground, 234,040 bushels. Two hundred and twenty Saw Mills were run by steam and 125 by water, sawing 442,018,387 feet of Lumber, and manufacturing 99,945,520 Shingles.

The Mining Ditches of the State are given at the astonishing length of 5,628 miles, and as 682 in number, while the amount of water per day used from them is given at 281,840 inches. There are 284 Quartz Mills, which crushed 490,962 tons. The Irrigating Ditches number 630, and irrigate 139,570 acres of land, or only about one twenty-fifth of the whole area cultivated—a very small proportion indeed. The Coal mined is given at 153,190 tons.

The Railroads number 54, having a length of 1,213.74 miles, one hundred miles less, however, than that given by the railroads themselves. Returns of eight Woolen Mills, using 5,501,976 pounds of Wool, are given.

The assessed value of Real Estate is returned as \$308,749,113; of Improvements, \$91,617,571, and of Personal Property at \$210,893,253, while the grand total is given at \$611,256,939. The population is estimated at 726,967, of which, San Francisco is given 105,000, and the number of votes at 173,680. Altogether, the table is valuable as a basis on which to frame estimates, and is highly creditable to the enterprise of the proprietors of the *Resources*.

Humboldt Gophers.

I am not aware that our gophers are a different race from those that infest other countries; but this I do know, they carry about them enormous vest pockets, and the way they pile up mounds of dirt for the benefit of our mowing machines and horse rakes is a caution. Perhaps the productiveness of our soils has improved on the original stock.

In looking over my vegetable garden and potato field last summer, and witnessing their destruction, I declared a war of extermination. The trouble has been, that people have rested too easy in regard to gophers, allowing their fields to be undermined and stocked, till now something decided will have to be done, or the crop of gophers will outweigh the potato crop. If a law should be passed offering a bounty for scalps, I am not certain but the gopher crop in Humboldt fields would prove more profitable than any other. In many of the fields there is a calculation that one-fourth of the root crops will be exported free by the gophers, saving not only freight, but depriving farmers of the benefits of a rise in the market. It is a notorious fact that we are paying these rodents more tithing than Brigham Young exacts of his parishioners. There is no let up to these gophers, and they carry out the teachings of the Grangers, employing no "middle-men," and have for their motto, "no tick here." Their tools are always "properly honed," and when they are in danger of being awindled by commission men, they "go-fer 'em." They "make hay while the sun shines," and invariably run a "night shift," making the most out of the "bonanza."

The farmers in these localities should organize and act in unison, and wage an unrelenting warfare against these pests. It will do no good to clear one field and not the rest, for they will flock in by hundreds. One person can tend a large number of traps, and deal out a large quantity of poison. The work should be commenced at once, before they have their increase. April and May is the best time to work.—*L. A. T., in Sacramento Valley Agriculturist.*

The Dressed Weight of Animals.

Farmers who have but little experience in feeding animals for the market, are often disappointed because their beef and pork does not weigh as much as they thought it would. They are likely to overlook certain points which ought always to be taken into account when estimating the dressed weight of animals.

1. Age. An old animal will not dress as

much in proportion to its looks as a young and growing one.

2. The degree of fatness. A creature which is very fat will weigh a great deal more than one equally as large, but which has not been well fattened.

3. Amount of grain which has been fed. An animal which has had twenty or thirty bushels of meal will dress much heavier than one which was in equally good order when the fattening was commenced, and which may look equally well when it is finished, but which has been fed only about half as much meal.

4. Length of time in which grain has been fed. A creature which has been meal fed for five or six months will weigh more than one which has had about the same quantity of meal, but has been fed only about half as long.

In all cases, liberal and long continued feeding is essential to the attainment of any great success in fattening animals of any kind.—*New England Farmer.*

USEFUL INFORMATION.

Coloring Process for Gems.

There is a factory in Idar, Germany, where the coloring of stones for art purposes is said to be carried on to a greater extent and more perfectly than in any other part of the world, the process pursued in thus converting chalcodones and red and yellow carnelian into onyxes resulting in the production of admirable specimens, which are known and prized in all the markets of Europe and America. The peculiarity of this process consists in the fact that the ribbons or zones in the different varieties of chalcodony—which, in the kidney-shaped masses of that substance, lie superimposed—differ in their texture and compactness; but owing to their similarity of color in the natural state, they can only be distinguished from each other with difficulty. The stone is, however, capable of absorbing fluids in the direction of the strata; and as the strata possess this property in different degrees, it necessarily follows that if a colored fluid be absorbed, and the quantity taken up by the pores of the stone is different for every stratum of zone, a number of tints will be produced corresponding to the number of zones, each being distinct and colored in proportion to the quantity of the fluid absorbed. In this way a specimen of stone naturally but slightly colored may be rendered equal to fine stratified chalcodony or onyx, and may be employed equally well in the engraving of cameos, or for any other purpose where the variety of color can be rendered available.

THE POTTERY TREE.—Among the many vegetable products of Brazil, the pottery tree of Para, is not the least worthy of note. This tree, the *Mogileia utilis* of botanists, attains a height of one hundred feet up to the lowest branches. The stem is very slender, seldom much exceeding one foot in diameter at the base. The wood is very hard and contains a large amount of silica; not so much, however, as the bark, which is largely employed as a source of silica in the manufacture of pottery. In preparing the bark for the potter's use, it is first burned, and the residue is then pulverized and mixed with clay in varying proportions. With an equal quantity of the two ingredients, a superior quality of ware is produced. It is very durable, and will bear almost any amount of heat. The natives employ it for all manner of culinary purposes. When fresh the bark cuts like soft sandstone, and the presence of the silica may be readily ascertained by grinding a piece of the bark between the teeth. When dry it is generally brittle, though sometimes hard to break. After being burned, if of good quality, it cannot be broken up between the fingers, a pestle and mortar being required to crush it.—*Am. Artizan.*

COATING SEAMS IN WROUGHT IRON TANKS.—Some one asks the *Scientific American* if there is any preparation for coating the seams of large wrought iron tanks so as to prevent the leakage of alcohol? The tanks are for storing it; they are perfectly water tight, but the spirit, being of a much less specific gravity than water, oozes out. To this query that journal replies as follows: Try cotton cloth soaked in glue, and cold rivet with this between the plates. Let us know if this succeeds, and also the results of other experiments tried by you, and we may be better able to inform you of a mode of procedure.

INTERESTING AND IMPORTANT CALCULATION.—It is estimated that of the 12,000,000 women in America, at least 11,000,000 wear calico dresses. It is not an unreasonable supposition that the spirit of economy has, during the past year, induced them to forego one dress apiece, or an average of eleven yards each, making, in all, a loss to the trade of 121,000,000 yards. This is nearly the entire product of all the Massachusetts mills for a year. From the above it will be seen how easy, from a slight inducement or necessity for economy, an overburdened market may be produced in the article of cotton goods.

WOODEN SKEWERS.—The only manufactory of wooden skewers in the world, it is supposed, exists at Toledo, Ohio, whence millions of them are shipped to England. They are made by machinery from hickory blocks. Between eighty and ninety thousand are turned out every day.

PATRONS OF HUSBANDRY.

STATE GRANGE HEADQUARTERS.

I. G. GARDNER, State Agent; Executive Committee Rooms; Fruit Growers' Associations, and Farmers' Mutual Life Insurance Company, all at No. 6 Liedendorff street, W. H. BAXTER, State Secretary, at Grangers' Bank, 415 California street, S. F.

To the Stockholders of the California Farmers' Mutual Fire Insurance Association.

NOTICE.—There will be a meeting of the stockholders of this company on Tuesday, June 1st, 1875, at their office, No. 6 Liedendorff street, San Francisco, for the purpose of increasing the capital stock to Three Hundred Thousand (\$300,000) Dollars. By order of Board of Directors.

W. H. BAXTER, Secretary.

Secretaries will be supplied with a printed list of subscribers for this paper upon sending a list of their offices within the range of their Grange. Also with blank report, etc., for clubs.

Grange Directory.—A full list of officers of the State Grange, Deputies, names of Councils, Subordinate Granges, Masters and Secretaries will appear in this department on the first Saturday of each month.

The Napa District Council will meet at Yountville on Saturday, April 27th, at 9 o'clock A. M. A full representation from each Grange in the district is earnestly solicited. H. W. HASKELL, Sec'y N. D. C.

GRANGERS' STATE FAIR OF ALABAMA.—The Directors of this exhibition have manifested the true spirit of the Order in a list of premiums which they have announced in advance of the regular premium list. They offer premiums ranging from twenty to fifty dollars for the best single acre of twenty-three different farm crops; one of fifty dollars and two of twenty-five dollars for the best crops of cotton and corn raised by boys; two of one hundred dollars each for the best results from small farms; two of fifty dollars each for the most valuable experiments in agriculture, and one of one hundred dollars for the best display of sample crops from one farm.

DISCONTINUANCE OF GRANGE BUSINESS AGENCY.—The organization of the Grangers' Business Association has rendered necessary the discontinuance of the Business Agency, which has been carried on of late under the charge of Bro. I. G. Gardner. In retiring from his charge we believe Brother Gardner carries with him the best wishes of the entire Order throughout the State. The change takes effect on the 19th inst., after which time Bro. T. J. Brooks as Vice-President of the Business Association, enters upon his duties as Business Agent of the Association.

BUSINESS INCREASING.—All the capital stock of the Cal. Farmers' Mutual Fire Insurance Association has been subscribed and paid up, and yet it is decided that the capital stock is too limited for the increasing demands of business on the Association. Hence, by recommendation of the Board of Directors, a meeting of the stockholders will be held June 1, 1875, for the purpose of increasing the capital stock to the sum of \$300,000. Business has rapidly increased this spring. Over \$100,000 of risks have been taken between April 1st and 13th. Attention is called to the official notice in another column.

FOR THE KANSAS AND NEBRASKA SUFFERERS.—Mr. W. H. Baxter, Secretary of the State Grange, has received the sum of one hundred dollars in gold for the relief of the Kansas and Nebraska sufferers, the same being the proceeds of an entertainment given by the Mission Literary Union of the Third Congregational Church, of 15th street, in this city.

ARROYO GRANDE WHITE SULPHUR SPRINGS, located two miles from Arroyo Grande, San Luis Obispo county, are recommended in the highest terms by Mr. D. Lusk, who has recently returned from a residence there. D. F. Newson, Secretary of Arroyo Grande Grange, is making desirable improvements on the place this spring, for the comfort of his guests.

SOUTH SUTTER GRANGE.—A member writes that this Grange is promising, that a majority of the people in the neighborhood are joining, and that the membership now numbers about sixty. This Grange has suffered from fire, their building with all its contents having been burned. The loss is estimated at \$1,500.

ANOTHER JUDGMENT.—In the Fourth District Court, April 12th, W. D. Wriston obtained judgment against Daniel Meyer, et al. The suit grew out of the shipment to Europe by Wriston, a Granger, and the failure of Morgan's Sons to pay over to him the money advanced by Meyer.

CONTRIBUTIONS for the Kansas and Nebraska sufferers continue to come in. W. H. Baxter, Secretary of the State Grange, forwarded on Tuesday, \$25 from Potter Valley Grange and \$10.70 from Elk River Grange, both in Mendocino Co.

TEMESCAL GRANGE.—The fourth degree is expected to be conferred on nine members on Saturday, April 17. The meeting will be held in Live Oak Hall, Eighth street, Oakland, at 12 M. The harvest feast will be for members of the order only.

The Southern Wing of the Order.

EDITORS PRESS:—Having sent you letters which, I hope, reached you promptly, the first summing up the work of the National Grange at Charleston, the second comparing some of the peculiarities and advantages of Florida with those of Southern California, allow me in this to speak especially of the work and prosperity of the farmers' cause in Alabama and other Southern States.

It is gratifying to find that our Order continues its prosperity throughout the South. Its purposes, influences and enterprises are quite as highly valued as I found they were last year, and I don't know but that they are even better understood and much more generally appreciated than was the case twelve months ago.

To give some idea of our numerical strength in the South, it may be well to record here the number of Subordinate Granges in each Southern State at the close of February, 1875. It is as follows: Alabama, 657; Arkansas, 603; Florida, 132; Georgia, 688; Kentucky, 1,517; Louisiana, 276; Maryland, 138; Mississippi, 654; Missouri, 2,016; North Carolina, 498; South Carolina, 332; Tennessee, 1,056; Texas, 999; Virginia, 493; West Virginia, 185.

Add these, and it makes a total of 10,254 Subordinate Granges in 15 Southern States, or almost as many as there were throughout the Union a year ago. This being nearly half the entire number in the United States, which was a month ago 22,547, proves quite as forcibly as a volume could, how freed from the baneful sectionalism of the past is our

Truly National Organization

Of farmers. As regards results, the good effect of the Grange is apparent in many ways among Southern farmers. Besides, the general improvement which is found everywhere to follow the application of its principles, such as mental culture, a more general reading of agricultural and other journals, and books; practice in correct thinking and talking; increased knowledge of the best methods of farming, disposing of products and securing of supplies; adding to the comfort and happiness of farmers' homes, and seeking the best systems of thorough and practical education for ourselves and children. Several special benefits for Southern agriculture have attended the Granges in their noble mission.

The Sub-soiling and Fertilizing

Of exhausted lands have been more extensively practiced throughout the South than ever before. All manures of easy access, such as muck, both vegetable and animal, cotton seed and ashes, are very generally utilized. Peruvian guano, and especially the first-class superphosphates of lime, now manufactured by thousands of tons annually on the Atlantic coast in South Carolina, are used extensively.

Yet, strange as it may seem, cotton seed when reduced to a compost, or ground into meal, is proving to be one of the very best fertilizers in use for corn, wheat, oats and even garden vegetables. So valuable is it becoming in this way, that some practical thinkers look forward to the time when a bale of cotton seed may command almost as high a price as a bale of cotton did in former years.

Experiments prove that it is also a valuable fertilizer for cotton itself, but it is found necessary to use it in limited quantities, because it gives the cotton plant such vigor there is danger of its growing too rank, or "running to weed," as cotton-growers say.

Though home-made fertilizers were formerly used to a limited extent by some of the most successful Southern farmers, our Granges with their well known incentives to increased thought and advancement, have given a new impulse to this and other means of improved culture, and the mass of farmers are now doing what only a few advocated in days gone by.

You recollect the good advice in the interest of Southern agriculture given by the National Grange at its St. Louis session in its

Memorial to the Cotton States.

Which recommended the raising of less cotton and more corn and other necessities, in order to carry out the principle so strongly recommended in our Grange purposes, to make farms self-sustaining. This was very generally heeded by our fellow Patrons of the Cotton States, and the good results are now apparent. Last year most farmers made corn enough for home use, and in some of the Gulf States there is still quite a surplus which commands a good price. It was, perhaps, the first year in the last ten when this has been the case.

Though a less acreage than usual was planted in cotton, quite a large crop of this great staple was made, estimated at 3,600,000 bales, and as the price this season has been from 14 to 16 cents a pound, the financial condition of the country has been considerably better than for some years past. This improved condition has been a decided stimulus to renewed energy and hopefulness in putting in the crop of 1875, as the farmers here are now doing.

The plan entered into jointly by the State Granges of Georgia, South Carolina and Alabama for direct shipment of cotton to Europe is being carefully matured, and the prospect of increasing the profits of cotton raising thereby is decidedly encouraging. Indeed, the indirect influence of this project is no doubt already having its legitimate effect in the advanced price now paid here for cotton.

One of the good results for farmers which inevitably follow

Grange Co-operation

when properly planned and executed, has been enjoyed by cotton growers in this part of Alabama along the Warrior river. By a Grange combination to resist the powerful steamboat monopoly of Mobile, cotton has been carried all the winter from Tuscaloosa to Mobile at \$1.50 per bale, when it has always before cost \$2.50 per bale, and at corresponding rates from other points.

The usual course was pursued by the monopoly against the boats that were run in the Grange interest. They first indulged to their heart's content in ridiculing the plan, and then lowered their rates below the freights agreed on by the Grangers, so as to break down the opposition boats. But our fellow Patrons here well understood the old trick, remained firm, and sustained their own boats and the freights agreed on, well knowing that if the friendly opposition was once broken up, they would soon be paying the old rates. During several months only three or four members, as far as heard from, have found the bait too attractive and yielded to the temptation to get their cotton to market for less than the stipulated rate.

When the contest which such efforts for justice always beget was at its height, the monopoly even went so far as to send a well-appointed boat up the river with the strictest instructions to be sure to bring back a load of cotton, and authorized the captain to bring freight and passengers for nothing, if it was the only way to get a load. The farmers were posted, knew this was the climax, and did their duty.

Imagine the chagrin of the steamboat men, who thought those "foolish Grangers" would not work together, when they saw their boat return to Mobile without a bale of cotton, as it did.

Fidelity and Firmness Triumphed.

The day was won, this struggle for "cheap transportation" was successful, the steamboat men yielded gracefully to the inevitable, and the farmers continue to enjoy the fruits of victory.

It is always a cause of regret in every association that in such struggles, even a few, like the three mentioned above, will yield to pressure, and desert the cause they ought to sustain. Of course, the Grange, however true the great mass of its members may be, cannot expect to be free from such exceptional cases. But the broad, unfailing charity taught by our principles, require us to be as lenient and forgiving as possible towards such weakness of erring brothers, hoping they may show more strength in future.

The discredit brought them by such desertion of duty is itself a severe punishment. If they can stand this part of it we suppose we can.

There is one matter, and a very important one, in which as far as I have been able to learn, the Patrons of Alabama are taking the lead of every other State.

They have taken vigorous action this year to redeem their State Agricultural Fair from the mere horse racing and gambling features which have almost completely destroyed for many years past the efficiency and value of these so-called "Agricultural Fairs" in almost every State and county. It is to be known this year as the

"Alabama State Grange Fair."

Is really under the control of the State Grange, and as you can see from its model list of premiums and regulations, which I send you, the Grange Committee controlling it aim to advance the solid interests of agriculture through its instrumentality.

You can see at a glance what a stimulus the list of handsome premiums will be to that "intensified farming," or the raising on one acre what several were formerly needed to produce, which is so strongly advocated by our Grange principles. W. H. Chambers, who signs the list, is Master of the State Grange of Alabama, and is one of our most practical thinkers and workers.

I hope you can find space to publish all or part of this admirable list as a refreshing departure from the jockey prize list too much in vogue for years. It certainly contains valuable suggestions as a guide for other States and counties that are anxious to secure the much needed reforms in their Agricultural Fairs.

This Fair will be held in Selma for five days beginning October 26th, and a new feature to be introduced is that each Grange in the State is expected to furnish a tent for the exhibition of its products. Several small Granges will no doubt in some instances unite in furnishing a tent. A few hundred tents thus serving the peaceful interests of agriculture, as fostered by the Grange, will certainly make a picturesque and

Attractive Scene.

Much interest is taken in the enterprise throughout the State, and an immense attendance is anticipated. Indeed, nothing of the kind in Alabama has excited such enthusiasm for many years.

I hope this brief report of our work elsewhere may give fresh encouragement in their struggle to our brotherhood on the Pacific coast.

I rejoice to learn from your columns of the successful growth of the "Business Association" of our State Grange, which with judicious management is destined to aid most effectively the good work of our order in California.

I hope to see you by April 15th, and shall return better satisfied than ever with the incalculable advantages enjoyed by my adopted State.

J. W. A. WHISTON.
Green Springs, Ala., March 30, 1875.

Harvest Feasts and Grange Picnics.

A correspondent sends us a communication in which he advises the discontinuance of the harvest feast, declaring that it is "demoralizing to the poor, and expensive to the rich."

We have on one or two occasions observed in the correspondence of grangers indications of the presence of an excessively straight laced spirit, which has manifested itself in rigid criticisms of harvest feasting, and we were aware that there still exist a few people who apparently believe that the Order should clothe itself in sackcloth and ashes, and that every farmer should assume the air of a martyr; but this is the first case in which we have seen a wish expressed to abolish the harvest feast altogether.

Patrons, don't give this suggestion a serious thought. If anyone is called upon to do penance let those who have been guilty of wrongs assume this position. The social feature of the Grange—like the sterner and more serious tasks and principles involved—is not born of the Order; they are the vital elements of American agriculture. They are merely finding utterance through the Grange, having heretofore remained almost without form, and void. And if the Order of Patrons of Husbandry succeed in developing these principles, and clear away the rubbish that clogs their growth, it will have achieved enough for our generation, and will need no credit for "creative power" to render it famous for many generations.

The "social feature" of the Grange, as manifested principally through the harvest feast, is evidently the true social feature of American farm life. It is wholesome, cheerful, hospitable and hearty. There are no foreign importations about it. It is a home product, growing out of characteristics that have in their turn been produced by the peculiar situations that have surrounded the American farmer while pursuing his vocation.

There have been a good many patent social soothing syrups offered to the agricultural community for curing the fretful discontent of the youth of the country; and it is conceded on all hands that we, as a people, are too intent upon our work, neglecting pleasure to an extent that is imprudent if not actually sinful; but the simple institution, this harvest feast, will do more to throw a charm about farm life, and thereby allay the discontent of the people, both old and young, and will be more effectual in establishing a balance of power between the social and mental energies than anything that moralizing political economists can compound from all the materials that science and art contain.

We do not deem it necessary to disparage the material part of the harvest feast—the eating and drinking—in order to show, in undue proportions, the purely intellectual features of the occasion. There is no danger whatever of farmers giving themselves up to riotous living; the danger lies in the opposite direction. The table of the harvest feast can be kept as free from everything that is degrading to human nature, as is the daily meal of the purest household; and we believe that none of the more serious labors of the Grange will be less faithfully and efficiently performed in consequence of this feasting. A good condition of the stomach is as essential to a proper performance of moral and intellectual work as to manual labor; and notwithstanding Burns, the workingman's poet, has said,

"The heart's aye, the part aye,
That makes us right or wrong."

We do not believe there is one of our readers who, if he were going to engage in moral and intellectual labors with a man, that would not be more solicitous about the condition of the stomach of his partner than of the condition of his heart.

We are glad to hear from other quarters notes of preparation for May-day picnics. This is a healthy indication. It was not to be expected that the pleasures and benefits derived from the picnics of last season would be forgotten by those who participated in them, or that they would fail to reproduce them. It was very properly looked upon as something new and exceedingly hopeful in rural social life.

For some months past the strictly business workings of the Order has necessarily demanded a large share of the attention of its members, but while pushing these matters through with all possible vigor and prudence, the social element of the Order should not be allowed to languish. The success of the Order thus far has been largely due to the aid received from woman. This is apparent even to outsiders. We shall be as largely dependent upon her services in the future, and to retain her hearty co-operation, the finer sentiments of the Order must be cultivated up to a vigorous growth. This may be done at the harvest feast and picnic in our genial climate, as it is by the firesides of our brother farmers in less favored countries. And among the good things that we expect of the coming season, is another series of Grange picnics. Let the invitations be on a broad and liberal basis. You will thereby win over many of the wavering; the occasions will be refreshing to the homesick new comers from other States, and will confirm the favorable impressions that are going abroad about the heartliness of California hospitality.

In Memoriam.

DIED.—In San Francisco, on the 8th inst., Belle Baxter Day, only daughter of W. H. Baxter, and the beloved wife of Franklin H. Day, in the twenty-fifth year of her age.

This fair young life, unshadowed by a touch of care or sorrow, which turned so joyously to everything beautiful in nature and art, and in whose mature proportions so many hopes were centered, has passed beyond our vision. The bleeding hearts of parents, of a fond brother, of a devoted husband, of a wide circle of loving relatives and admiring friends, are comforted in the assurance that what was so well begun in the earthly is to be perfected in the heavenly home.

Among the flowers she loved, herself a fairer flower, arrayed in her bridal robes, with all the tender tokens which affection and refined taste had gathered around her, she lay "at rest" forever. She had left an atmosphere of peace and gentleness in all the place, which even the last sad rites paid to her mortality could not break; the old, old story of bleeding, bereaved hearts was told in prayer and praise; and then the young mother was laid beside the infant who opened its eyes upon the world only to close them again, that it might be born with her to immortality. Many who read the lines which chronicle her death will deeply sympathize in the loss which our Brother and Sister Baxter have suffered, and with the doubly bereaved husband.

Some of us, baptized with the same baptism of tears, can say:

In vain your beauty, summer flowers,
Ye cannot greet those cordial eyes;
They gaze on other fields than ours,
On other skies.

We are as those who stand and listen
Amid the twilight's chill and gloom,
To hear, approaching in the distance,
The train for home.

In you fair land are children playing;
And there, oh, vision of delight!
I see a child and "child-wife" straying,
In robes of white.

So will we heed the voice of duty,
Waiting, we life and health must crave;
Filling our days, although their joy and beauty
Lies in the grave.

Thou, then, the loving heart that breaketh,
Leaving us sore bereft, and lone,
We'll call Thee "Blessed" when Thou maketh
The parted—one.

J. C. C.

Oakland, April 12, 1875.

In Memoriam.

Sister Valina Sankey died at her residence near Pleasant Grove Creek, Sutter county, California, on the 25th day of March, 1875.

The funeral ceremony was duly performed by the members of South Sutter Grange, of which she was a worthy and highly esteemed member; and at a meeting of South Sutter Grange, No. 207, P. of H., the following resolutions were unanimously adopted:

WHEREAS, It has pleased the Infinite Father to call to a higher life one of our social circle, sending an angel messenger within our gates and taking from us our beloved Sister Sankey,

Resolved, That in the death of Sister Sankey our Grange has lost one of its most respected members, the community an upright and honorable woman, and her family a devoted wife and mother.

Resolved, That the fittest method of cherishing her memory is to imitate her example of good works, her patience in a protracted illness, her unshaken and unswerving fidelity to duty in all the relations of life; and feeling assured that when one after another of our Order is summoned by our Worthy Master above, we shall meet our Sister in that higher Grange, where separation and sorrow shall come no more.

Resolved, That we extend to her bereaved husband and her family our heartfelt sorrow in their sad hour of affliction, and looking for our only solace in the belief that our loss is her better gain, we bow in submission to the will of the Master above.

Resolved, That the members of this Grange wear the usual badge of mourning for thirty days.

Resolved, That a copy of these resolutions be placed on the minutes of the Grange, and that a copy be sent to the family of deceased, and to the RURAL PRESS for publication.

W. E. ROBERTS, } Com.

HENRY BISHOP, }

GEO. R. RICHARDSON, Sec'y.

In Memoriam.

WHEREAS, It has pleased the Divine Master to remove from our midst our beloved brother, Joel Harlan,

Resolved, That in the death of Brother Harlan we have lost an esteemed member of our Order, the community a worthy and upright citizen, and his family a devoted husband and father.

Resolved, That we extend to his bereaved family our sincere and heartfelt sympathy in this, their sad hour of affliction.

Resolved, That as a mark of our respect we wear the usual badge of mourning for thirty days, and that a copy of these resolutions be sent to his family, the Contra Costa Gazette and PACIFIC RURAL PRESS.

EMILY G. NORRIS, }

J. J. KERR, }

J. B. SYDNOR, } Com.

In Memoriam.

WHEREAS, It having pleased our Heavenly Father to remove by death our esteemed brother, Geo. Fairfield, Resolved, That in this dispensation of His providence, we lose a worthy member of our Order, and a good citizen.

Resolved, That we extend to his family our heartfelt sympathy, and as a token of our respect wear the usual badge of mourning.

Resolved, That a copy of these resolutions be sent to his family, the Contra Costa Gazette and PACIFIC RURAL PRESS.

EMILY G. NORRIS, }

J. J. KERR, }

J. B. SYDNOR, }

From the Granges.

Vineland Grange, No. 186.

EDITORS PRESS:—Vineland Grange, No. 186, is getting along very well. There has been a change of officers in our Grange; Bro. George Freeman has been elected Master, Eugene Stine, Sec'y.; Miss M. Tustin, Pomona and Sister A. Stine, Flora. Everything looks fine in our country at present, with the prospect of a good crop.

E. V. STINE, Sec'y.

Tustin City, Los Angeles Co., Cal., April 4, '75.

STANISLAUS COUNTY COUNCIL.—EDITORS PRESS: The Stanislaus Council held its regular meeting in Grange Hall, Modesto, on the 6th inst. After some preliminary business the annual election was held.

[The notice of election will be found in its appropriate place.—EDS. PRESS.]

The election of Trustees was postponed to next meeting on the 1st Monday in June next. Various important questions were proposed and discussed. The utmost harmony prevailed during the entire session. The attendance was good, notwithstanding the fact that the weather was unpropitious.

All the delegates are requested to be present at the next meeting, as questions of unusual interest will come up for the consideration of the Council.

All fourth degree members in good standing are welcome, at all times, as visitors.

V. E. BANGS, Sec'y.

Westminster Grange.

EDITORS PRESS:—Westminster Grange, No. 127, although very quiet, still lives and prospers. We number now sixty-five all told. On the 3d inst., a class of four brothers took the fourth degree, after which they, together with the rest of the brothers and the sisters and some invited guests, worked in that paradoxical degree, in which the "fat of the land" is most abundantly spread, yet everything goes quickly "from hand to mouth," and little is left but crumbs, bones and dishes. Our new brothers liked the initiation very well. This is the first feast in our Grange to which outsiders were invited, and the effect doubtless will be to considerably increase our numbers. After a period of comparative inactivity we are beginning to live up. At each meeting matters of general interest are the topics for discussion. The subjects being previously announced, all come prepared to give a free interchange of thoughts and ideas, and the result is that we feel benefited and instructed, and go away feeling that the time has been well spent. The subject for our next meeting is one of such great importance that a special meeting has been called for its consideration; viz: What is the best and least expensive method of harvesting our grain crops? The practice heretofore in Los Angeles county, where harvesting machinery is comparatively scarce, has been with headers and threshers, not only to bring hands and horses enough to work the machine, but each man must have a horse to ride and one to lead. These extra horses are, of course, tied up to the farmer's stack. If any remonstrance is made, all hands threaten to leave. Then the farmer is obliged to choose the least of two evils, either he must send the machine away and run the risk of getting another, with fewer supernumeraries, or he must submit to this outrage. After having made preparations for a large number of hands, both indoors and out, the last evil is generally chosen, and the consequence is, that after such a serious inroad, but little profit remains to pay for the labor and time of the "honest farmer." Now, we of Westminster have stood this kind of work just about long enough, and by combined effort intend to effect a reform.

Death has made another inroad into our Grange, and taken from our midst Brother Lot M. Jaquette, one of our charter members. The following resolutions were passed at our last meeting:

WHEREAS, The Great Master of the Universe, in His infinite wisdom, has removed from our midst Brother Lot M. Jaquette, of Westminster Grange, No. 127, therefore,

Resolved, That while we mourn the loss of a brother, yet we rejoice in that our loss is his gain.

Resolved, That our warmest sympathy is with the remaining afflicted ones of the family, and we earnestly console with them in their deep distress, and further

Resolved, That these resolutions be spread in full upon the minutes of the Grange, and that a copy of the same, under seal of the Grange, be furnished the family of our deceased brother, and also a copy to the Anaheim Gazette and PACIFIC RURAL PRESS for publication. And further

Resolved, That the sign of mourning be displayed in the hall of the Grange for thirty days from this date.

M. B. CRAIG, Master.

W. FRANK POOR, Sec'y.

"Jack Frost" has been to see us for the past two nights, and there is every indication that he will call again to-night. He left his card upon the potato vines, grape vines, and on the early fruit and nut trees. Serious damage has been done; and together with his companion, a cold, dry "Norther," has put out the spark of hope for a good and abundant crop on many a farm in this county.

P.

Plaza Grange.

EDITORS PRESS:—I have not seen anything in your paper concerning our Grange for some time, so I thought I would send you a little notice. We are improving both in numbers and in work. We have had some lively meetings on the occasion of Brother Colby's visit to us, to talk us about the "Business Association." We had an excellent harvest feast, which

was enjoyed by all as only Grangers know how to enjoy such things. Our Worthy Deputy was present, and gave us instructions in the secret working of the Order; and altogether we had such a good time that we concluded we would repeat the occasion, and invite all our friends, so that others, seeing the good feeling and friendship existing in our Order, might be encouraged to join our band and keep the numbers swelling until all are enlisted. Our next feast is on the 17th of this month, when we will be pleased to see any and all. Fraternally,

J. W. BOWER, Sec'y.

April 3, 1875.

Fairview Valley Grange.

At a regular meeting of the above named Grange the following resolutions were passed:

1. That we, the officers and members of Fairview Valley Grange, do heartily endorse an article published in the PACIFIC RURAL PRESS of February 27, 1875, under the heading of "Irrigating and other Canals."

2. That we will support for office men who will advocate the building and managing of such canals by the State.

G. L. PARKER, Acting Sec'y.

March 27, 1875.

Grange Business Changes.

The Executive Committee of the State Grange, at its session the present week passed the following resolutions:

Resolved, That the Business Agency established by the Executive Committee for the benefit of the Patrons of this State, be and is hereby discontinued from and after the 19th day of April, 1875, and the State Agent, Bro. I. G. Gardner, is hereby directed to turn over all business that may come to him as Agent of the Executive Committee, on and after the date above mentioned, to T. J. Brook, the Business Agent of the Grangers' Business Association in San Francisco; and Bro. Gardner is also hereby directed to close up his official accounts and present them for final settlement to the Executive Committee at their meeting, called for May 4th, 1875.

WHEREAS, The Grangers' Business Association of California will be in a position on and after April 19th, 1875, to attend to all commissions that may be sent to them; be it therefore

Resolved, That we recommend all Patrons hereafter to transact their business through said Agency. And it is also

Resolved, That all connection of Bro. J. H. Hegler with the Executive Committee, as Agent of the Dairy Department, will also cease on and after the 19th day of April, 1875.

Election of Officers.

GRAND ISLAND GRANGE, COLUSA CO., CAL.—J. C. Wilkins, M.; Thurston Thomas, O.; Jacob Myers, L.; H. D. Strawther, S.; Isaac Howell, C.; John Weloh, T.; James Hearn, Sec'y; Andrew Myers, G. K.; Miss Margy Hearn, Ceres; Miss Lucy Hearn, Pomona; Mrs. E. R. Graham, Flora; Mrs. H. D. Strawther, L. A. S.

STANISLAUS COUNTY COUNCIL.—H. W. Browse, M.; J. W. Treadwell, O.; W. S. McHenry, C.; E. W. Robinson, S.; J. D. Harp, T.; V. E. Bangs, Sec'y; B. P. Hugin, G. K.

FOR LOS ANGELES.—Brother J. C. Merryfield, of the Executive Committee of the State Grange, and General Deputy, will visit Los Angeles the last of this week. His post-office address for a few days will be in care of T. A. Garey, Los Angeles. Deputy Merryfield has important information to impart to Patrons, and especially to Deputies and Masters, including some changes in the work and reports from the National Grange. If it should be deemed advisable, Brother M. will visit different Granges in Los Angeles county, and return overland, stopping at points along the route if request is made by Granges in season for him to do so. Our southern Patrons will meet one of nature's noblemen when they greet Brother Merryfield.

AGRICULTURAL NOTES.

BUTTE.

NO NEED TO DESPAIR.—From the Northern Enterprise, April 10: The late frosts have played havoc with the fruit. The apricots, almonds and peaches, in a large degree, and in fact almost all kinds of fruits that could be injured by frost have been destroyed, and there will not, the coming season, be much indulging of the appetite in this respect. The wheat fields of this vicinity have not, as yet, suffered much. The late sown wheat struggles up slowly and shows unmistakable signs of want of moisture, but with rain any time in this month will yield well. The summer fallow grain looks fine, and no better promise could be given. We do not think there is yet any need for despair.

CALAVERAS.

EFFECT ON THE FRUIT TREES.—The Stockton Independent has been informed by a gentleman who resides on the Calaveras river, in the neighborhood of Milton, that the frost has destroyed all his fruit. He says that last year he raised over forty tons of fruit, and so universally has the frost blighted his crops this year that he thinks he will not raise enough for his own family use. If green fruit will be so scarce as now anticipated from present indications, then dried fruit will be in great demand and more sought for than at present.

COLUSA.

EDITORIAL OBSERVATION.—The Colusa Sun makes the following observation on the prospect in that section: The volunteer is gone. The summer fallow mostly looks well yet but needs rain. The late sown is struggling along, and in most cases will make fair crops if we

can have a little more rain. The early sown winter plowing looks badly, has not started out good and even with rain will not make large crops. This is about the sum of our observation and of reports from farmers. No one now looks for a large average yield. The season only proves further the great advantage, or the almost absolute necessity, of deep plowing and of summer fallowing the land. It is the practice now of many of our best farmers to plow in the winter, replot in the spring and then dry sow in the fall. This plan has never yet failed of a large yield on anything like good land. People had got to expecting too much of this country.

CONTRA COSTA.

MORE RAIN WANTED.—The Gazette, of April 10, says: After the cold blustering northwester on Monday, and the severe frosts of the two succeeding nights, we have, on Thursday, as we write, some prospect that we may have a little more rain within a few days; and it can hardly come too soon for the requirements of the later sown grain. The summer fallow and early sown grain will do tolerably well without more rain, if it does not get too much north wind and hot weather, but a very considerable portion of the later sown grain throughout the State has had less than an inch of rain on it, and without more—unless it has exceptionally good fortune otherwise—there can be little chance of its making much where it survives the frosts and drouth. It is by no means, however, too late to expect copious showers, we have had in several past seasons, at later than present date, much more rain than we now need to give us fair assurance of good yield from the late sowings, and we may hope to have enough yet this season.

EL DORADO.

COLDEST SNAP OF THE SEASON.—From the Mountain Democrat of April 10: At about day-break last Monday the snow commenced falling in this city and continued pretty steadily until a little past noon. The ground was covered to the depth of three to four inches on the level. Towards night the weather became quite cold and during the night ice was formed to the thickness of half an inch, which was repeated on Tuesday night. This has been the coldest snap of the season and has played havoc with the fruit crop. We are not yet advised as to the probably full effect of this untimely freeze. The crop of apricots will certainly be almost nothing and the peach crop will probably be not much better.

PLACER.

UNUSUALLY COLD.—From the Placer Herald of 10th inst: During the early part of the present week the weather has been unusually cold for this time of the year. Such an extreme change in the temperature of the atmosphere occurring this time of the year, must certainly be attended with much damage to the fruit crop. It is fortunate that some varieties of fruit were not too forward to be affected, and others too forward. The peach crop here, and above here in this county, is thought by some to be entirely destroyed. Others think that though some are doubtless nipped in the bud, there will be as many left as the trees ought to bear, and that the fruit will be all the better for the thinning out. The exact damage cannot yet be ascertained. It may be that Nature has just committed this freak to teach avicious man a lesson in horticulture, to the effect that if he would have good fruit he must not try to have too much of it.

SAN BENTO.

UNPRECEDENTED.—From the Hollister Enterprise of April 10: The weather for the past week has been of rather a singular admixture for this latitude. Sunday was clear and bright, but the air was chilly and cold. Monday it was cloudy, windy, rainy and snowy—a day seldom, if ever, experienced in this country before. Tuesday it was clear again, but overcoats were kept in use; since which time the days have been warm and sunshiny, with frosty nights. It is feared that the tenderer fruits and vegetation have suffered but to what extent we have not learned. Suffice it, it was certainly an unprecedented spell of weather for these parts, and its recurrence would be greatly deprecated.

SIERRA.

PLOWING COMMENCED.—A correspondent of the Mountain Messenger writes as follows from the valley: We had very good weather the fore part of this month, but from the 15th up to the present time the wind has blown continually. Some of our farmers have already commenced plowing.

SONOMA.

PROSPECT.—The Petaluma Argus of the 10th inst. says: It is yet too early to pronounce with any degree of certainty as to the next fruit crop. The prospects at present are as good as could be desired. Frost has done but slight injury in this vicinity or anywhere in this country so far as we have learned, and from this time on there is but little danger from this source.

THE GRAPE CROP.—The Sonoma Democrat says: Fortunately the pruning was done late in this county, and the grapes were not sufficiently advanced to receive any material injury from the late severe frosts. In most of the vineyards the buds had not burst, and no diminution whatever of the wine crop is anticipated.

STANISLAUS.

SMALL FRUITS DESTROYED.—The Stanislaus News of 10th inst., says: A remarkable cold

Continued on Page 261.



If God Shall Bless Me So.

In years long past I said, If God shall give
Me certain blessings—cause my path to lead
Through ways of comfort; grant me long to live,
And strength sufficient for life's utmost need,
Much joy shall surely through these channels flow,
If God shall bless me so.

Friends and fair honors, should He grant me these,
Home-love and children, and some skill to grasp
From the rich world its opportunities—
What more could heart desire, or full hands clasp?
Surely my life like some glad time shall go,
If God shall bless me so.

But now I say, If God shall grant me heaven,
And so end there; if I at length shall come
Into His presence who Himself hath given,
All better gifts must lie in that vast sum;
No good thing there shall be withheld, I know,
If God shall bless me so.

The Unseen Island.

There is a very old and beautiful story, that has formed the staple for poems in many tongues, that we wish we could worthily tell.

It is of one sailing on the sea in a sleep without a dream. The ship was wrecked and shattered, and yet he slept. The waves bore him like an infant in a cradle, upon the plank whereon he lay, and when he awoke it was with music, and upon a couch of flowers.

The shore was strange, yet lovely, and thronged with thousands who proclaimed him king. It seemed as though they had awaited him, wait though he was, for there was a throne without an occupant, and royal robes for his arraying.

All human wills seemed merged in his, and glory shone around him even as the sun of that fair unclouded clime.

At length there came to him a reverend man, and told him that the time would come when, exiled from his kingdom and powerless as he came, there would be "none so poor to do him reverence." But, continued the sage, beyond the clouds that skirt this land lies an unseen island bare and drear; no fountains sparkle, and no flowers perfume; no music but the wail of winds and waves; no shelter but the shadow of a rock.

Thither they will banish thee, and there thou must make thy inevitable home. But now thou art supremely blest; slaves do thy bidding, and gold strewn thy pathway like sand. So, seek that island out; cause the rock to be smitten, that it may gush with living water; send fragrant flowers from thy gardens and spicy trees from thy forests; let the amaranth be transplanted, and the palm shed pleasant shade till the wilderness shall be glad from them, and the "desert blossom as the rose."

Build there a royal mansion, and fill it with all things pure and beautiful that surround thee now; so thou shalt have a Paradise at last, and go rejoicing into exile.

The king was wise, and while he cherished the realm he had ruled, yet sought the island and "colonized," as it were, the half of his heart. Spring was persuaded to come that way and she hung her robe on the trees he had planted, and left her breath on the gale. The music of the birds and fountains, the winds among the leaves, floated round the new palace he had builded; but nothing of this land had he ever beheld.

Years went on, and the old, royal glories grew dim, and the crown was tarnished, and by and by, there was another wreck; a new king came sleeping to the shore, and he that had ruled in a palace, was not suffered so much as a shelter, for he was an exile, as the sage had prophesied. But he went not with a heavy heart, for sometimes when the wind blew from the unseen shore, it had borne to him the fragrance of the orange and the palm, and so he knew that his gardens were growing beautiful for his coming. And he laid off the purple like one disrobing for pleasant dreams, and put down the sceptre as if it had been a burden, and went away to his unseen hope with a "good-bye" on his lip.

And, though none have seen the Eden he dwells in, yet sailors driven out to sea, declare that sometimes sweet odors have been wafted across the deck, from an unseen land, and by it they know the gardens of the Exile are near.

As when to them who sail
Beyond the Cape of Hope, and now are passed
Mozambique, off at sea northeast winds blow
Sabeau odors from the spicy shore
Of Araby the blest;—with such delay
Well pleased they sack their course, and many a
League
Pleased with the grateful scent, old Ocean smiles.

PROGRESS IN JAPAN.—As a proof that the idyl of Japan is shaken to its foundation, it is said that the beautiful temples which are thickly scattered over the land are little cared for and are rapidly going to decay.

Aged Beauties.

History is full of the accounts of the fascinations of women who were no longer young. Thus Helen of Troy was over forty when she perpetrated the most famous elopement on record, and, as the siege of Troy lasted a decade, she could not have been very juvenile when the ill-fortune of Paris restored her to her husband, who is reported to have received her with unquestioning love and gratitude. Pericles wedded the courtesan Aspasia, when she was thirty-six, and yet she afterwards, for thirty years or more, wielded an undiminished reputation for beauty. Cleopatra was past thirty when Antony fell under her spell, which never lessened until her death, nearly ten years after; and Livia was thirty-three when she won the heart of Augustus, over whom she maintained her ascendancy to the last.

Turning to more modern history, where it is possible to verify dates more accurately, we have the extraordinary Diane de Poitiers, who was thirty-six when Henry II. (then Duke of Orleans, and just half her age) became attached to her; and she was held as the first lady and most beautiful woman at court up to the period of the monarch's death and the accession to power of Catharine de Medicis. Anne of Austria was thirty-eight when she was described as the handsomest queen of Europe, and when Buckingham and Richelieu were her jealous admirers. Ninon de l'Enclos, the most celebrated wit and beauty of her day, was the idol of three generations of the golden youth of France, and she was seventy-two when the Abbe de Bernis fell in love with her. True it is that in the case of this lady a rare combination of culture, talents, and personal attractions endowed their possessor seemingly with the gift of eternal youth. Bianca Capello was thirty-eight when the Grand Duke Francisco of Florence fell captive to her charms, and made her his wife, though he was five years her junior. Louis XIV. wedded Mme. de Maintenon when she was 43 years of age. Catherine II. of Russia was thirty-three when she seized the empire of Russia and outwitted the dashing young General Orloff. Up to the time of her death (at sixty-seven) she seemed to have retained the same bewitching powers, for the lamentations were heartfelt among all those who had ever known her personally. Mme. Mars, the celebrated French tragedienne, only attained the zenith of her beauty and power between forty and forty-five. At that period the loveliness of her hands and arms especially was celebrated throughout Europe. The famous Mme. Keczmer was thirty-eight when Barras was ousted from power, and she was without dispute declared to be the most beautiful woman in Europe, which rank she held for fifteen years.

A SANGUINARY AFFAIR.—Always cork up your catsup bottles tightly. Going out on the steamers the other day, we observed a man place a bottle of tomato catsup, neck downward, in the rack above his seat. Presently a friend came in, and in a few moments the friend, who was cleaning his nails with a knife, introduced the subject of a third term for Grant. The discussion gradually became warm, and as the excitement increased, the man with the knife gesticulated violently with the hand containing the weapon, as he explained his views on the question. Meantime the cork jolted out of the bottle overhead, and the catsup dropped down over the owner's head and coat and collar without his perceiving the fact. Directly a nervous old lady on the opposite seat, who caught sight of the red stain, and imagined it was blood, began to scream "murder" at the top of her voice. As the passengers, conductors, and brakemen rushed up, she brandished her umbrella violently, and exclaimed, "Arrest that man there! Arrest that villain! I see him do it. I see him stab that other one with his knife till the blood spurted out. Oh! you wretch! Oh! you villainous rascal, to take human life in that scandalous manner. I see you punch him with the knife, you butcher, you! and I'll swear it again you in court, too, you audacious rascal!" They took her into the rear car and soothed her, while the victim wiped the catsup off his coat. But the venerable old woman will go down to the silent grave with the conviction that she witnessed in those cars one of the most awful and sanguinary encounters that have occurred since the affair between Cain and Abel.—*Max Adler.*

WOMAN SUFFRAGE IN ENGLAND.—As is generally known, women in England have a vote on municipal affairs if they pay taxes; but not in the election of members of Parliament. Quite an animated contest lately came off in Parliament, in which it was attempted to extend the right of suffrage to women in the election of members for that body. The measure failed by a vote of 187 to 152; and the fact is not a little significant that Disraeli the Prime Minister voted for the women. A similar vote was had in 1873, which stood for suffrage, 155, against it, 222. The gain, and the respectable character of the vote is very significant. The leader in this movement is Professor Fawcett, of Cambridge University, whose wife is also prominent as a lady worker in the movement. The indications are that the right of suffrage will soon be extended to the women of Great Britain—at least to all unmarried women who pay taxes. The passage of such a law in England cannot fail to have a most marked effect in this country.

This, That and the Other.

[Written for the Press by ELISA E. ANTHONY.]

Gentlemen, if you desire to speak to a friend in the street, stand on the street corner, so you can prevent people from crossing, the more the better, and if they cast indignant looks towards you, on no account let it disturb your composure, for this is a free country, as you doubtless are aware.

Adjust your eye-glasses on your classical nose, give your hat a slight tilt to one side, put your hands in your pockets and free your mind by speaking audibly concerning the passers-by; and if you see anything in an individual's appearance that is peculiar, ridicule them by all means, as it will create a laugh; never mind about the individual's feelings, that is no concern of yours, and you are not supposed to have a heart. Oh! no, that was left out. Spit tobacco juices here, there and everywhere; and if it should soil a lady's dress, why serve her right for wearing such long dresses; why cannot she wear them short enough to clear the ground and show her pretty feet?

Ladies, when you meet a stranger, slowly and searchingly eye her all over from head to foot; and if the independent creature will not be crushed, but returns your look with one of surprise and pity, then curl your lip, or smile in a superior manner; you will feel relieved at having accomplished your duty. When riding in a car, and one of your sex enters and looks around for a seat, spread out your dress, or give Fido the seat beside you and remain in blissful unconsciousness that any one is standing; and if she should remove Fido, give her a withering look, but do not move one inch, as ladies are noted for their contumacious behavior. But if it is a gentleman that enters the car, take Fido in your arms, and looking shyly in his face, indicate that there is room for him at your side. "Truly the ways of some people are past finding out, and the mind of a woman is a mystery," even to one of her own sex.

San Jose, March 16, 1875.

Heavy Rain Falls.

The most remarkable rain falls on the globe are on the Khasia hills, in India, where it averages six hundred inches, about five hundred of which falls in seven months of the year. According to the *Journal of Chemistry* there is not known any other place on the globe where the average rises even to three hundred inches. So far as has been ascertained, the Hye in England, at an elevation of ten hundred and seventy-seven feet, between the lakes of Derwentwater and Windermere, is the wettest spot in Europe. In 1866, it is recorded that two hundred and ninety-six and fifty-six hundredths of an inch of rain fell. Among the Highlands in Scotland, and in the English lake district, from five to seven inches often falls in a day. If an inch of rain falls in a day in our country, we call it a pretty heavy rain. The average annual fall of rain in the east of England is not more than twenty to twenty-eight inches. In France it averages thirty inches. In level Russia it falls as low as fifteen inches. In the Northern States of our country, it ranges from twenty-seven to forty-five inches; in the Southern States, from fifty to sixty-five inches. There are regions where it never rains, as in the Desert of Sahara in Africa, and the Desert of Gobi in Asia, and on the coast of Peru. It rains nearly every day in Patagonia.

Blushing.

The suffusion or reddening of the skin, particularly of the face, which is termed "blushing," is a physical phenomenon entirely dependent upon mental influences. The number of persons who suffer—actually suffer—from a tendency to blush is large, hence it may be encouraging, however, to these distressed ones to know that—

It is better for one to blush than to turn pale.

That a blush is a sign which nature hangs out to show where chastity and honor would dwell.

That a blush is nature's alarm at the approach of sin, and her testimony to the dignity of virtue.

That a full-blown rose, besprinkled with the purest dew, is not so beautiful as a child blushing beneath its parent's displeasure, and shedding tears of sorrow for its faults.

And that so long as vicious or sinful allusions and acts cause the warm blood to crimson the cheek, the soul is quickened by the higher spiritual impressions, and impurity is offensive to it.

SLIGHTLY INEXACT.—Sir Richard Phillips has put forth a book entitled "A Million of Facts," in the introductory notice of which he says: "On the title of the work it may be remarked, that, though it limits the contents to a million of facts, yet, in truth, the volume, directly or indirectly, contains far more." Yet according to the computation of "Notes and Queries," if every word in this fictitious "Million of Facts" were a fact, it would contain no more than 403,650, or a little more than two-fifths of a million.

The Cheerful Face.

Next to sunlight of heaven is the sunlight of a cheerful face. There is no mistaking it, the bright eye, the unclouded brow, the sunny smile—all tell of that which dwells within. Who has not felt its electrifying influence? One glance at this face lifts us at once out of the arms of despair, out of the mists and shadows away from tears and repining, into the beautiful realms of hope. One cheerful face in a household will keep everything bright and warm within. Envy, hatred, malice, selfishness, despondency and a host of evil passions may lurk around the door, they may even look within, but they never enter and abide there—the cheerful face will put them all to shame and flight.

It may be a very plain face, but there is something in it we feel we cannot express, and its cheerful face sends the blood dancing through our veins for very joy. We turn toward the sun, and its warm genial influence refreshes and strengthens our fainting spirits. Ah, there is a world of magic in the plain, cheerful face! It charms us with a spell of eternity, and we would not exchange it for all the soulless beauty that ever graced the fairest form on earth.

It may be a very little one that we nestle upon our bosom or sing to sleep in our arms with a low, sweet lullaby; but it is such a bright, cheery face! The scintillations of joyous spirits are flashing from every feature. And what a power it has over the household, binding each heart together in tenderness, and love, and sympathy! Shadows may darken around us, but somehow this face ever shines between, and the shining is so bright that the shadows cannot remain, and silently they creep away into the dark corners, where the cheerful face is gone.

It may be a wrinkled face, but it is all the dearer for that, and none lovelier. We linger near it, and gaze tenderly upon it and say, "God bless the happy face!" We must keep it with us as long as we can, for home will lose much of its brightness when the sweet face is gone.

And after it has gone how the remembrance of it purifies and softens our wayward nature! When care and sorrow would sear our heart-strings asunder, this wrinkled face looks down upon us, and the painful tension grows lighter, the way lies heavy. As is the spirit, mind, disposition, so are the features.

WHAT THE OHIO GIRLS CAN DO.—An Ohio girl who had read something in a Cincinnati paper about the physical degeneracy of American women, comes valiantly to their defence, at least so far as the girls of her acquaintance are concerned. She says: "Whatever may be the condition, physically considered, of the girls in the East, I know that in our healthy State of Ohio there are plenty of healthy girls. And if the girls in large cities will live and diet for the sake of a bloodless face, weak nerves and sharp bones projecting at every point, let them have their pains for their trouble and don't marry them, young men, but come West, where the girls, both in town and country, are (but with a few exceptions) healthy and strong, fit to become wives and mothers, and they do not have pale faces, weak nerves, neuralgia, etc., but can wash, iron, cook, sew and milk the cows, and do all the work common to the household, besides having a good education in music and books. To say nothing of the pleasant horseback rides in summer and the skating excursions in winter, when we return with bright eyes and rosy cheeks, which plainly tell that our veins are filled with pure, rich blood, wherein lurks no disease."

WINTER IN RUSSIA.—Comparatively but little snow falls in Russia. A gent man writing from St. Petersburg—one who has spent some weeks there in the midst of winter—says he never saw it snow there. The moisture in the air crystallizes during the night and falls in a kind of frozen dew to the depth of several inches. The icy crystals are quite unlike snow, and can be swept from the walks. The cold there is not generally much in excess of that of New England.

THE TRUEST BEAUTY.—The truest beauty is not that which suddenly dazzles and fascinates, but that which stands upon us insensibly. Let us each call up to memory the faces that have been most pleasant to us—those that we have loved best to look upon, that now rise most vividly before us in solitude, and oftenest haunt our slumbers—and we shall usually find them not the most perfect in form, but the sweetest in expression.

LECTURING THEN AND NOW.—The late Horace Mann, in response to an invitation to lecture before a lyceum, once wrote: "Perhaps you will not wish to have your invitation accepted when I inform you that I have raised my terms to fifteen dollars." This was in 1849. A strange contrast, indeed, as now lecturers of the second class demand one hundred dollars for their evening performances. They are mostly dear at any price.

BLUE EYES.—A good judge says you can most always tell a blue-eyed man without regard to the length of her finger nails.

Cold Winters in Europe.

In 401 the Black sea was entirely frozen over. In 763 not only the Black sea, but the straits of Dardanelles were frozen over; in some places the snow banks were fifty feet high. In 822 the great rivers of Europe, the Danube, the Elbe, etc., were so hard frozen as to bear heavy wagons for a month. In 860 the Adriatic was frozen. In 991 everything was frozen, the crops totally failed, and famine and pestilence closed the year. In 1067 most of the travelers in Germany were frozen to death on the roads. In 1134 the Po was frozen from Cremona to the sea, the wine sacks were burst, and the trees split by the action of the frost, with immense noise. In 1236 the Danube was frozen to the bottom, and remained long in that state. In 1316 the crops wholly failed in Germany; wheat, which some years before sold in England at \$1.50 per quarter, rose to \$10. In 1308 the crops failed in Scotland, and such a famine ensued that the poor were reduced to feed on grass, and many perished miserably in the fields. The successive winters of 1432-3-4 were uncommonly severe. In 1368 the wine distributed to the soldiers was cut with hatchets. In 1883 it was excessively cold. Most of the hollies were killed; coaches drove along the Thames, the ice of which was eleven inches thick. In 1709 occurred the cold winter; the frost penetrated fully three yards into the ground. In 1716 booths were erected on the Thames. In 1744 and 1746 the strongest ale in England, exposed to the air, was covered in less than fifteen minutes with ice an eighth of an inch thick. In 1809, and again in 1812, the winters were remarkably cold. In 1814 there was a fair on the frozen Thames.

THE TWO BREATHS.—So far as pure air is concerned, some hints are given by Canon Kingsley which may be useful even to the poor, or to employers who care for their men. He describes what he calls "the two breaths," and their effects. The two are, of course, the breath taken in—which "is, or ought to be, pure air composed, on the whole, of oxygen and nitrogen, with a minute portion of carbonic acid;" and the breath given out—which "is an impure air, to which has been added, among other matters which will not support life, an excess of carbonic acid." He then points out that this carbonic acid gas, when warm, is lighter than air, and ascends, and, when at the same temperature as common air, is heavier than that air and descends, lying along the floor "just as it often lies in the bottom of old wells or brewers' vats, as a stratum of poison, killing occasionally the men who descend into it." Hence a word of admonition is addressed to those who think nothing of sleeping on the floor.

UNION OF EFFORT.—No woman is free from responsibility toward her own sex. All are to bear one another's burdens, and to share one another's sorrows. This is the true sisterhood of women. However widely apart in station, they rest upon each other for good or evil. The prizes of virtue may be given to the humblest as well as to the highest. After the late terrible war, the French government decreed three medals to women who had served the most faithfully in the hospitals. The first was given to a poor sewing-girl, the second to an actress, the third to a woman of rank and fashion, whose name had been often mixed up with the scandals of the empire. Who could but feel that the spirit of that noble Englishwoman, Florence Nightingale, had been the inspiring example of these women, so widely separated in rank, and yet all united in the work of charity?

CHILDREN.—As the pure breath of children revives the life of aged men so is our moral nature revived by their fresh and simple thoughts, their native feeling, their mirth. Their grief is soon aroused and soon allayed. Their influence on us is at least reciprocal with ours on them. When our infancy is almost forgotten and our boyhood long departed, though it seems but as yesterday; when life settles down darkly upon us, and we doubt whether to call ourselves young any more; then it is good to steal away from the society of bearded men, and even of gentle women, and spend an hour or two with children. After drinking from those fountains of still fresh existence, we shall return into the crowd to struggle onward and do our part in life, perhaps as fervently as ever, but, for a time, with a kinder and purer heart, and a spirit more truly wise.

THE AMERICAN WOMAN has long been regarded by Europeans as the most beautiful woman in the world. This she is and has been for twenty-five years, without doubt; and as the circumstances of her life become easier, her labor less severe, and her education better, she will become more beautiful still. America never possessed a more beautiful generation of women than she possesses to-day and there is no doubt that the style of beauty is changing to a nobler type. The characteristic American woman of the present generation is larger than the characteristic American woman of the previous generation.—*Late Cor. New York Times.*

HOUSEHOLD FURNISHING.—The New York Times refers to the revolution in the art of household furnishing, there being at present little demand for extravagant and florid goods; soberer styles and more substantial wares being the order of the day.

Young Folks' Column.

My Little Brown Hen.

My little brown hen in her cosy nest
Sat coddled close, where the sun in the West
Peeped cautiously, as he passed that way,
With a friendly glance of his brightest ray.
And she threw him back such a glad smile of light
From her twinkling eyes as she said, "All right!"

New mornings came, and the hours wore on,
Just twenty days of the weeks were gone—
Since little brown on her fresh white eggs,
Snapped her keen, black eyes at his feather legs,
As she meant to say, "These chickens are fine,
But you wait awhile till I'll be counting mine."

We laughed to think that so small a hen,
Should ask for eggs, but we gave her ten,
As you give a child many toys to please,
When to say him nay would but make him tease;
And we smiled to see what a queerly air
She assumed, and the mystified look she could wear.

Sedate as the best of the Brahmas, she,
A quiet hen as you'd wish to see,
Scarce had stirred from her corner nook
These twenty days, so we went to look
At the wee brown dame, on the New Year morn,
For we thought, perchance, she is out of corn.

She winked her eye with a look so queer,
And whispered cur-r as we came too near;
For sure enough, Biddy Feather-legs,
She had plenty of corn, but was onto 'er eggs.
Not a whole egg there, but the chicken ten,
Made a cunning fringe for the wee brown hen.

Need I to point or to moralize
On what is plain to the dumbest eyes?
The western sun, as he sets to-night,
Looks under the corner, and says, "All right!"
For he knows full well, does this good old sun,
That the small folks do the best work that's done.

—Our Home Journal.

Weeds.

I was once walking with a farmer through a beautiful field, when he chanced to see a tall thistle growing on the other side of the fence. In an instant he sprang over the fence, and cut it off close to the ground.

"Is that your field?" I asked.
"Oh, no," said the farmer, "but, bad weeds don't care much for fences, and if I should leave that thistle to blossom in my neighbor's field, I should soon have plenty in my own."

I wish all fathers and mothers would think of that. The evil seeds in your neighbor's field will scatter seeds into your own. So it is worth while to pull them up in self-defence. Try to influence the little untalented child to follow the good, the true and the beautiful, not only for his own sake, but lest he sow evil seed in the heart of your own child, in spite of all your careful tending. Every weed pulled up in your neighbor's field is a dangerous enemy driven away from your own.

KEEP AT IT.—After a snow-storm a little fellow began to shovel a path through a large snow-bank before his grandmother's door. He had nothing but a small shovel to work with. "How do you expect to get through that drift?" asked a man passing along. "By keeping at it," said the boy cheerfully; "that's how!" That is the secret of mastering almost every difficulty under the sun. If a hard task is before you, stick to it. Do not keep thinking how large or hard it is; but go at it, and little by little it will grow smaller and smaller, until it is done. If you desire to improve the public that you have the best way and the best price, and are worthily entitled to their patronage, advertise yourself. Do not expect to accomplish everything with one trial, nor two, nor three, but keep at it and you will surely win. Have some system about your advertisement, and let that be your shovel, then dig away at the people—keep at it and you will as surely get through the dull times and bring more custom than you can attend to, as that boy went through the drift with his small shovel.

READ AN HOUR A DAY.—There was a lad who at fourteen was apprenticed to a soap-boiler. One of his resolutions was to read an hour a day, or at least at that rate, and he had an old silver watch, left him by his uncle, which he timed his readings by. He stayed seven years with his master, and it is said that when he was twenty-one he knew as much as the young squire did. Now let us see how much time he had to read in, in seven years, at the rate of an hour a day. It would be 2,555 hours, which at the rate of eight readings per day would be equal to three hundred and ten days, equal to forty-five weeks, equal to eleven months—nearly a year's reading. That time spent treasuring up useful knowledge would pile up a very large store. I am sure it is worth trying for. Try what you can do. Begin now. In years after you will look back upon the task as the most pleasant and profitable you ever performed.

A LITTLE GIRL'S IDEA.—Somebody tells the following good story about a little child of a new appointee to the staff of Gov. Tilden of New York: It is said that when the individual referred to first presented himself en militaire to his wife and little daughter, the latter, after gazing at him in wonder for a few minutes, turned to her mother and exclaimed, "Why, ma, that's not a real soldier, it's pa!"

The comparison of love to fire holds good in one respect—the fiercer it burns the sooner it is extinguished.

GOOD HEALTH.

To Produce Perspiration.

EDITORS PRESS:—One of your subscribers takes an interest in recommending the following recipe for family use. She has used it for years, and has never known any but good and satisfactory results, and through her some M. D.'s have confirmed her testimony by continued use of same where a sweating effect was desired:

Take gum camphor, saffron, ipecac and Virginia snake root, each one ounce; opium, half-ounce (pulverized); add one quart good fourth proof brandy, digest or soak two weeks, then filter or strain.

Do.—For adults a teaspoonful every one or two hours, in a little warm herb tea to produce sweating. Useful in fevers, inflammations, colds, and wherever free perspiration is desired. When used for children, the amount and frequency of the dose should be modified according to age and circumstances.

A MOTHER.

Rio Vista, March, 1875.

Interesting Facts.

The organ of vision is considered the most delicate organization of the human frame; yet many who were born blind have been enabled to see by surgical operations, and the following is an interesting fact concerning one of the class: A youth had become thirteen years of age, when his eyes were touched by a surgeon. He thought scarlet the most beautiful color; black was painful. He fancied every object touched him, and he could not distinguish by sight what he perfectly well knew by feeling; for instance, the cat and dog. When his second eye was touched, he remarked that the objects were not so large in appearance to this as the one opened at first. Pictures he considered only partly colored surfaces, and a miniature absolutely astonished him, seeming to him like putting a tushel into a pint.

Stanly, the organist, and many blind musicians, have been the best performers of their time; and a schoolmistress in England could discover that the boys were playing in a distant corner of the room, instead of studying, although a person using his eyes could not detect the slightest sound. Professor Sanderson, who was blind, could, in a few moments, tell you how many persons were in a mixed company, and of each sex. A blind French lady could dance in figure dances, sew and thread her own needle. A blind man in Derbyshire, England, has actually been a surveyor and planner of roads, his ear guiding him as to distance as accurately as the eye to others; and the late Justice Fielding, who was blind, on walking into a room for the first time, after speaking a few words, said: "This room is twenty-two feet long, eighteen wide and twelve high," all of which was revealed to him with accuracy through the medium of his ear. Verily, "we are fearfully and wonderfully made."

HOW TO BREATHE.—Civilized man is the only being that breathes through the mouth, which at once shows that it is an unnatural and acquired habit. The wild Indian would as soon think of eating with the nose as of breathing thus. The habit is usually acquired in childhood, and is generally the result of breathing impure air. It is then that the fond mother should guard her offspring with watchful care against this vicious and deadly enemy of her child. Let her follow the example of the wild Indian mother, and give her child the pure air of heaven to breathe, and if perchance it opens its little mouth during sleep, let her gently press its little lips together, until the habit of keeping them closed becomes fixed for life.—*Science of Health.*

THE VIRTUES OF BUTTERMILK.—Mr. Rebber, in a paper presented to the French Academy, thus extols the virtues of buttermilk: Life exists only in combustion, but the combustion which occurs in our bodies, like that which takes place in our chimneys, leaves a detritus which is fatal to life. To remove this he would administer lactic acid with ordinary food. This acid is known to possess the power of removing or destroying the incrustations which form on the arteries, cartilages and valves of the heart. As buttermilk abounds in this acid, and is, moreover, an agreeable kind of food, its habitual use, it is urged, will free the system from these canes, which inevitably cause death between the seventy-fifth and hundredth year.

DARK HOUSES.—A dark house is always an unhealthy house, always an ill-aired house, always a dirty house. Want of light stops growth, and promotes scrofula, rickets, etc., among the children. People lose their health in a dark house; and if they become ill they cannot get well in it.

If a wound made by a rusty nail be held for twenty minutes over smoke from burning wool or woollen cloth, the pain will be relieved and the worst case of inflammation allayed. This is simple and worthy of a trial, in these very frequent cases, which often result so fatally.

DOMESTIC ECONOMY.

Cooking Cranberries.

Cranberry sauce is the great American dish, and the most popular one for general use, either for dinner or tea. As a relish with game, poultry and meats of all kinds, it is unequalled. To every pound of fruit add three quarters of a pound of sugar and half a pint of water. Stew over a moderate but steady fire. Be careful to cover and not to stir the fruit, but occasionally shake the vessel, or remove to a gentler heat, if in danger of sticking or burning. If attention to these particulars be given, the berries will retain, to a considerable extent, their shape, which is desirable and adds greatly to their appearance on the table. Boil from five to seven minutes, when they should be removed from the fire, turned into a deep dish, and set aside to cool. If to keep, they can be put up at once in air-tight jars. Very soft berries should first be removed and those remaining thoroughly washed, after which they should be placed in scalding water for about two minutes and then taken out; this removes a portion of the acidity, and a little less sugar will be required.

White sugar (granulated is best) should be used, and not too much water; the proportions given of each, it is thought, will suit the majority of tastes, but when otherwise, the quantities can be made larger or smaller, though in using sugar too free of the distinctive cranberry flavor will be partially lost; some may prefer one pound of sugar where the amount specified is three-quarters, but probably others will be better pleased with less, perhaps with half a pound—especially dinner sauce—which makes the preparation very palatable, and has the advantage of economy; but when desired to keep a long time without canning or sealing, a larger quantity should be used. On account of the acidity of the fruit it is preferable, though not positively necessary, to use porcelain-lined cooking utensils.

VALUE OF A MILK DIET.—If any one wishes to grow fleshy, a pint of milk before retiring at night will soon cover the scrawniest bones. Although now-a-days we see a great many fleshy fellows there are many lean and anky ones, who sigh for the fashionable measure of plumpness, and who would be vastly improved in health and in appearance could their figures be rounded with good solid flesh. Nothing is more coveted by thin women than a full figure, and nothing will so rouse the ire, and provoke the scandal of one of those "lapper builds," as the consciousness of plumpness in a rival. In cases of fever and summer complaint, milk is given with excellent result. The idea that milk is feverish has exploded, and it is the physician's great reliance in bringing through typhoid patients, or those in too low a state to be nourished by food. It is a mistake to crimp the milk pitcher. Take more milk and less meat. Look to your milk-man, have large-sized, well-filled milk pails on the table each meal, and you will also have sound flesh and light doctor's bills.

USEFUL HINTS FROM ONE WHO KNOWS.—Beef can be preserved for farmers' use by cutting it up, frying slightly, packing in a crock and covering with warm tallow. Beef tallow should be used for this, and kept perfectly clean and tried out nicely.

We pack hams in the same way in the spring, but consider them best without frying. They should be tightly packed and care taken that the warm lard fills up all the vacant places left by the meat.

Some housekeepers think that tallow is not fit for cooking purposes; but I think when it is properly rendered it is as good for some things as lard. I prefer it for frying doughnuts, and one of my acquaintances, a good cook, says it is the only shortening fit for mince-pie crust.

A PAN DOWDY.—Did you ever hear of a pan dowsy? It is an old-fashioned New England dish and has the flavor of our grandmother's cookery. Make a rich crust; line a deep earthen pot with it; now slice some pie apples quite thin for the first layer, strew the apples with molasses and spice and a teaspoonful of milk; cover with a thin crust and repeat the process. Cover the top with crust and your pan dowsy is made. Bake in a slow oven. A brick oven is made use of in New England generally. When done turn it on a platter and serve hot.

AN EXCELLENT BREAD PUDDING.—Soak two pounds of pieces of dry stale bread or toast all night in plenty of water, with a plate laid on the top to keep them under the water. Next morning pour off and squeeze out all the superfluous water; then mash fine the pieces of bread, mix with half a pound of cleaned currants, a quarter of a pound of moist sugar, four ounces of suet chopped fine, and two teaspoonfuls of fresh ground allspice; grease the inside of a baking dish with a bit of suet, put in the pudding and bake four hours.

YELLOW ON SILK GARMENTS.—Boil the articles for half an hour in Marseille soap, with the addition of wheat bran; then rinse, and dye to a buff in a bath of soap and annatto, 1 lb., and pass through a sulphuric acid bath of 2% Beane, in which they will acquire a beautiful yellow color.



DEWEY & CO.

A. T. DEWEY, W. B. EWER, G. H. STRONG, J. L. BOONE
PRINCIPAL EDITOR.....W. B. EWER, A. M.

OFFICE, No. 224 Sansome street, Southeast corner of California street, where friends and patrons are invited to our SCIENTIFIC PRESS, Patent Agency, Engraving and Printing establishment.

SUBSCRIPTIONS payable in advance—For one year, \$4; six months, \$2.25; three months, \$1.25. Remittances by registered letters or P. O. orders at our risk.
ADVERTISING RATES.—1 week. 1 month. 3 months. 1 year
Per line.....25 20 15 10
One-half inch.....\$1.00 \$3.00 \$7.50 24.00
One inch.....2.00 5.00 14.00 40.00

Large advertisements at favorable rates. Special or reading notices, legal advertisements, notices appearing in extraordinary type or in particular parts of the paper, inserted at special rates.

No Quick Advertisements inserted in these columns.

GET UP CLUBS FOR THE RURAL PRESS.

OLD SUBSCRIBERS and other reliable persons are authorized to get up clubs of five or more subscribers for this paper at \$3 per annum for each name. Our terms for all subscribers are cash in advance. Postage will be prepaid by us after January 1st, 1874. The papers will be addressed singly to each individual. Regular subscription price \$4. Sample copies free. Let those who will work for the RURAL bear in mind that that they will confer a lasting benefit on new subscribers, besides improving their own talents by business practice. Try your hand and report at once. We offer all a chance. You do not know what can be done till you try!

SAN FRANCISCO:

Saturday, April 17, 1875.

TABLE OF CONTENTS.

GENERAL EDITORIALS.—Mechanics' Institute—Tenth Industrial Exhibition; Implements for Haymaking; What the Frost Did, 242. Coming Fairs and Exhibitions; Coffee in California; Manufacture of Agricultural Implements; Land Plaster or Gypsum as a Fertilizer; The District Telegraph, 258.

ILLUSTRATIONS.—Implements for Haymaking, 249. Economy of the Vegetable Kingdom, 257.

CORRESPONDENCE.—San Jose Industries; Co-operation; From Napa County; Los Angeles and Spadra; The Land Owners' Canal and Ditch Company; Crops in Los Angeles County; Frost in the Fort Hills, 250-51.

THE DAIRY.—Prospective Dairy Values, 251. SHEEP AND WOOL.—Splendid Prospect for Sheep; The Wool Market, 251.

USEFUL INFORMATION.—Coloring Process for Gems; The Pottery Tree; Coating Soams in Wrought Iron Tanks; Interesting and Important Calculation; Wooden Skewers, 251.

PATRONS OF HUSBANDRY.—Progress of the Patrons in California; New Granges; Meetings; Etc., 252-3.

AGRICULTURAL NOTES from various counties in California, 253-261.

HOME CIRCLE.—If God Shall Bless Me So (Poetry); The Unseen Island; Progress in Japan; Aged Beauties; A Sanguinary Affair; Woman Suffrage in England; This, That and the Other; Heavy Rain Falls; Blushing; Slightly Inexact; The Cheerful Face; What the Ohio Girls Can Do; Winter in Russia; The Truist Beauty; Lecturing Then and Now, 254. Cold Winters in Europe; The Two Breaths; Union of Effort; Children; Household Furnishing, 255.

YOUNG FOLKS' COLUMN.—My Little Brown Hen (Poetry); Weeds; Keep at It; Read an Hour a Day; A Little Girl's Idea, 255.

GOOD HEALTH.—To Produce Perspiration; Interesting Facts; How to Breathe; The Virtues of Buttermilk; Dark Horses, 255.

DOMESTIC ECONOMY.—Cooking Cranberries; Value of a Milk Diet; Useful Hints from One Who Knows; A Pan Dowsy; An Excellent Bread Pudding; Yellow on Silk Garments, 255.

POPULAR LECTURES.—Economy of the Vegetable Kingdom, 257-260.

MISCELLANEOUS.—Statistics of California; Humboldt Gophers; The Dressed Weight of Animals, 251.

ACCOMMODATION FOR THE DEAF AND DUMB.

The building erected for the temporary use of the deaf and dumb and the blind having been completed, we are requested to give notice that the schools will be opened on Wednesday, the 21st instant. As the accommodations are limited, those who are not present at the opening will run the risk of losing their places in school. There will be no further vacation till June, 1876, save at the Christmas holidays.

ON FILE.—"Potter Valley, Crops, etc.," C

I. H. N.; "Grand Island Grange," I. H.; "Linn Valley Grange," A. K. R.; "From Lone City," J. C. H.; "Petaluma Grange," F. P. Enquiries on the following subjects: "Sub-soiling," "Jack Rabbits and Grass-hoppers," "Concrete Houses" and "Ice Machines."

POETRY.—"T. W.," "An Acrostic" and

"U. S." have each been received. Much of the poetry in each is good, and all have more or less merit, but in each case there are lines which require revision to bring them up to the proper standard of excellence.

CHAS. T. BELL will visit Northern California and Oregon on business for this office. We look for good reports from Mr. Bell and the country he visits.

Coffee in California.

Probably it is not generally known that prospective coffee growers have, for several months past, been taking a careful look at different portions of this State, with a view to establish coffee plantations here on a very extensive scale. Such, however, is the fact, and among the damages chargeable to the late freaks of Jack Frost, is a slight nipping in the bud of this enterprise, not frightening it out of California, but effectually closing against it certain districts which, previous to this unprecedented cold turn, were considered rather favorable to coffee culture.

It is not enough to assure the experienced coffee grower that such a frost has not occurred in certain localities within a period of fifteen years, for they reply that it is liable to occur again within the same space of time, and a frost once in fifteen years, even, is too often for successful coffee culture, and those who induce indiscriminate coffee planting, simply because it is "in California," are themselves sowing the seed of disappointment.

A lot of coffee seed was recently sent to the office of the San Francisco Call for distribution, and we learn that some of these seeds have been appropriated to places altogether ungenial to this tree. The disappointments attending these efforts at coffee culture will not, of course, be of a serious character. By care and nursing they may succeed in raising the bush—for the seed, we are informed, was in proper condition for planting, the natural covering of the berry having been retained—but when the frost comes—even at long intervals—and destroys the crop, it will probably be set down as proof that coffee cannot be grown in California. But if proper discrimination were used in selecting a starting place for this peculiar crop, there would probably be no disappointment attending its introduction. It would be well, perhaps, to state here that even such frosts as we have had of late will not kill the body and larger branches of the coffee tree; but a very slight frost will destroy the young berry-producing twigs.

Another mistake is likely to grow out of the distribution of the seed alluded to above; for in the directions for planting which accompanied them, it was stated that six feet from each other is the proper distance for coffee trees to stand. This is too close; this tree when full grown often attains a height of twenty feet, sending out lateral branches six feet in length; thus needing a separating distance of sixteen to eighteen feet. Still another error in the instructions alluded to has been pointed out to us by parties acquainted with the habits of the coffee tree—the supposed necessity for entire seclusion from other plants. We have been assured that this seclusion is entirely uncalled for; and that the growing plantation would be benefited by the presence of crops that are properly cultivated.

The closest and most careful observers in this matter are strong in the faith that there are portions of California especially adapted to coffee culture. There is scarcely a doubt that the tree will thrive here and produce abundantly; but what the merits of the product will be as to flavor and aroma time alone can decide. Like some of our fruits, it may be of large size and uniformly abundant, yet lack character. Or, like our grapes, it may surpass in this as in other qualities. It has been suggested that the development of the ethereal substance on which the aroma of wine depends, may impart to coffee grown in this country the fine distinctive qualities which our wines possess.

One of the many curses that slavery has entailed upon free labor throughout the world is the fear that any product with which slave and coolie labor has been identified cannot possibly be made to pay under a free labor system. This was one of the dangers that the pioneers of California cotton growing had to encounter. We all know the result of the conflict. It is the manifest destiny of the coffee growers of this country to meet the same monster; for one of the first questions which the ventilation of the subject calls forth is—will it pay under a free white labor system? This is a fair and legitimate question and does credit to the people who ask it. We have put the same question to those who understand the labor phase, with other points of this subject and they declare that the coffee growers of California could afford to pay as good wages as are paid in other departments of agriculture. It is to be hoped, therefore, that our people will not allow the slave and coolie labor bug-bear to disturb their meditations on this subject.

Manufacture of Agricultural Implements.

The Kimball Manufacturing Company are enlarging their sphere of enterprise by the addition of a branch establishment for the manufacture of agricultural implements. For the accommodation of this new industry a commodious building, 90x220 feet in its exterior dimensions, has been erected on the corner of Berry and Sixth streets.

It is proposed to manufacture every implement needed on a farm from a garden trowel to a lumber wagon. Heretofore our farmers have depended almost wholly on Eastern manufacturers for their implements and as a result a large sum has annually been sent away which could as well be retained to circulate in our own State.

The most approved machinery will be introduced by the Kimball company and they in-

tend that their agricultural implement department shall be fully equal in reputation to their other manufacturing departments which is a sufficient guarantee of its excellence. The building is two stories in height. On the ground floor is the engine, of eighty-horse power, twelve forges, lathes and necessary machinery. The upper room is divided into a drying room, a painting room, wood workers' room and an office for the Superintendent, Mr. E. Soule. Between seventy-five and one hundred hands will be employed when the manufactory is in operation, which is expected to be about May 1st. In time it is the intention of this company to add a foundry for the casting of such light work as is needed in their business.

This will form a valuable acquisition to the constantly increasing manufacturing enterprises of San Francisco. We feel that its success is assured.

Land Plaster or Gypsum as a Fertilizer.

The manurial value of land plaster—sulphate of lime—has long been known and acknowledged. As long ago as when Benjamin Franklin lived and employed his peculiar but most effective modes of presenting great and important truths to his countrymen, land plaster was employed as a dressing upon the land of our most advanced and intelligent farmers. That great philosopher once adopted the following characteristic method of teaching the value of this important mineral as an aid to growing crops: He selected a large grass field by the side of a public highway near Philadelphia, which rose gradually from the road to the rear of the field, and staked out upon its surface the forms of certain letters; within these forms he sowed freely his favorite fertilizer. As the season wore away the grass thus prepared soon shot up far ahead of the surrounding herbage which was not so treated, until it finally stood out in such bold relief of luxuriant green that no passer-by could fail to observe the phenomena, which explained itself in the magic words—LAND PLASTER. This was a practical test of the value of the fertilizer, which fairly spoke for itself in words which could be neither ignored nor disputed.

The philosophy of this fertilizer—exactly how it acts upon vegetation—is not fully understood or agreed upon by agricultural writers. It is well known, however, that it has a great affinity for ammonia, one of the most fertilizing agents known. It is this quality which gives it a great value as a disinfectant about stables, where ammonia gas is so abundant. A slight sprinkling of gypsum on a compost heap arrests the escaping gases at once, and the unpleasant volatile ammonia is lost to the sense of smell. As fast as the ammonia passes from the mass it is taken up by the sulphuric acid contained in the gypsum and in combination therewith forms a sulphate of ammonia which, when placed in contact with the rootlets of vegetation, in a not over moist soil, readily gives up its ammonia as food for the plant.

Hence it is reasonably supposed that when spread upon land, without a prior contact with the compost heap, it collects ammonia from the atmosphere and conveys it to the plant in the same manner as already described. Others suppose that when applied directly to the land it possesses the power of condensing moisture during the cool hours of the night, and imparting its nightly accumulations to the soil or plant roots during the day. Whether one or both, or neither of these propositions are true, there can be no mistake about its great value as a fertilizer to every species of vegetation—whether grass, grain, vines or trees. The experiment of Franklin has been tried time and again in nearly all parts of the country, and almost always with the most gratifying success.

The conditions of its use are simply a not over moist soil. In corn or roots it may be dropped in the hill; but the usual way of applying it is to sow it broadcast upon the surface—for wheat, as soon after it is up as it begins to show the need of moisture; the same with grass. For trees and vines it should be spread freely upon the ground. It need not be harrowed in when so spread under any circumstances. We have little doubt but that this fertilizer would prove of great benefit to the dry, arid soils of California. We understand that some of our farmers are already experimenting with it, and we trust some of them will send us the results of their experiments as soon as results are reached.

In the best agricultural districts of the East gypsum has become a staple article among farmers. They use it as the most reliable remedy in cases of drouth. A slight dressing of this, applied to corn in the early stages of its growth—about the time of its first cultivation—produces marked results. It is beneficial to all crops in nearly all conditions, especially in cases of drouth; and it is this point which we would like particularly to impress upon the minds of the farmers of California, where drouth is the paramount agricultural difficulty. This fertilizer may be obtained of Lucas, Gesner & Co., of this city. See their advertisement in its appropriate place.

SQUIRRELS vs. CORN.—Will some one inform our readers how to prevent squirrels from digging up young corn for the seed kernels? We should also like to know the particulars about the cartridges used for suffocating squirrels in Santa Clara county.

The District Telegraph.

In most of the large cities in the East, the district telegraph is an "institution" which can no longer be considered as an experiment, and its convenience to the public is such that it would be difficult to do without it. Until recently, no attempts have been made to inaugurate this system on this coast, but recently a company has been organized, the boxes are being made, and shortly San Francisco can boast of its equality with other great cities, in having its district telegraph. As this is an enterprise with which the public is likely to have intimate relations in the future, a sketch of its character and purposes will be interesting:

The object of the district telegraph is to place at the immediate service of each of its subscribers a specially trained force of messengers, watchmen and policemen, and to do all this at so low a price as to enable any one in moderate circumstances to avail himself of this company's services. The city is divided into districts of such size that the extreme points in the district can be reached in three minutes from an office situated in the center of the district, where there is a force of operators, clerks, messengers, firemen and policemen. A signal box, such as shown on the next page, is placed in the house or office of each subscriber, and is connected with the district office by telegraph wires. The signal box has a switch arm of three positions, as shown, respectively: "messenger," "police," and "fire." Each box has its own number, which is recorded at the district office against the name and address of the subscriber. In the interior of the box is a train of wheels, clock gearing, which, when the arm is turned, starts in motion, and the number of the box is given at the station, in the same manner as the fire-alarm box.

If a messenger is wanted, the switch is moved to "messenger," and instantly a trusty boy is sent to answer this call. Placing the switch arm to "police" brings a private policeman, and switching to "fire," brings the fireman, as afterwards explained. The basis of the system is, that the messenger, police or fireman's service shall be performed within three minutes, at any time of day or night. In such cities, where it is established, the employees of the company perform a great variety of public service.

The messengers run errands, carry parcels, make collections, tend offices, distribute handbills or cards and do about everything within the range of a boy's capacity. The companies are very careful in selecting boys and are responsible for their honesty, in a fixed sum. The business generally requires about one boy to each ten boxes and affords respectable employment to a great number of lads, who are, by strict discipline and business association, gradually trained to fill more important duties. In many cases people employ boys who are only needed for an hour perhaps each day; by this system many of those boys can be dispensed with, and at the same time they can find employment with the company.

The policemen are frequently called to remove obtrusive servants and other nuisances; and if burglars are heard in the house, or the occupants are alarmed by suspicious noises on the premises, a touch of the button brings assistance at any time of day or night.

In cases of fire the system is invaluable. Under the best system of city fire alarms it takes an average of ten minutes to reach a fire-alarm box, find the person in charge of the key and send in the alarm; and then the department must have time to reach the fire. With the district telegraph in the house the signal can be sent instantly and within three minutes firemen are working on the fire with extinguishers.

At the same time the district office sends the alarm to the nearest engine-house, so that the steam fire engine will also come. In case the fire gets too much headway word is sent by telegraph to the fire alarm office, and a general alarm is struck in the usual way. The company will have independent wires to each engine house in the district, so that no delay is necessary, as the gong will be struck as soon as a signal is made for "fire." It will be seen from this that the system is very simple and efficient in case of fire, as all this is accomplished by telegraph, and with as little fuss as possible. The patrol first comes to the house, and if more help is necessary then the nearest engine in the district, and then if the fire threatens to be destructive the whole department turns out. Usually independent firemen are kept by the fire companies, but the existence of the fire patrol here does away with the necessity of special policemen.

This system is no experiment, having been tried with great success in other large cities. Here, only one district will be laid out for the present, but in time no doubt the whole city will be districted and then there will be a central office for each district. The advantages of the method are so obvious that they need no explanation after what has been already said. The tariff is not high and many business men will no doubt avail themselves of the facilities thus offered them, at their offices as well as their homes. The messengers can be told to do anything that boys can do, and people are charged only for the time actually employed. The police system will do away with many special police, and the fire alarm is invaluable.

POPULAR LECTURES.

Economy of the Vegetable Kingdom.

Twelfth Lecture Delivered before the University of California College of Agriculture, on Monday, February 1st, by PROF. C. E. BESSEY.

[Reported and Illustrated for the RURAL PRESS.]

We take up to-day, first, the myrtles, natural order *Myrtaceae*, a group of tropical and south temperate plants, made up mostly of trees and shrubs, and including about 1,500 species. Most of them are found in Australia, that is, the larger number of species; while in Northern Asia and in North America we find none, so that we have this great group of *Myrtaceae*, without a single natural representative in all North America. The myrtles (Fig. 1), all of them, contain an aromatic oil, which may be considered as the principle which runs through the whole group. It is an important order on account of its timber, its food, its aromatic and its medicinal products.

Under the head of timber, we have standing prominent among the timber trees of the world, the different species of the genus *Eucalyptus*. Of this genus I shall not attempt to say very much, because I find there is no literature on the subject to be obtained here. The trees are all Australian and Tasmanian. As many as thirty or forty species are pretty well known. They are usually trees 100 to 150 feet high, although attaining, in some cases, 300 to 400 feet, and one was measured whose length was 480 feet. It, however, had rather a small diameter; having a diameter of not more than 27 feet, I think; not as large as our large *Sequoias*. They are all interesting, botanically, on account of the peculiarity of their leaves and general appearance. The leaves are broad and regular on the young plants, but they become long and to a certain extent one-sided on the old plants. In the older plants they hang vertically, presenting their edges upward. The species differ very greatly in their value. Some of the species of *Eucalyptus* are exceedingly valuable, others are almost valueless. I will read you what Sir William McArthur says—and this is in a very rare book. He says, in speaking of these trees: "When fully matured, some of them are not sound at heart, and even when sound, the wood is very brittle. In several kinds there is a very serious defect, which is called gum vein, the gum or resin passing out through the concentric circles between the layers of wood." It means just this: There is a great tendency to take on wind cracks, so that when you cut a tree you find great cracks between these successive layers, filled with gum. The statement is also made that it is quite apt to split up. I have consulted what seem to be the best, taking the Australian authorities. They give them popular names. These popular names cover several species. The most valuable is the *E. sideroploia*, or iron bark. The iron barks are very useful in building railways, putting up buildings and manufacturing implements. Somebody has cited instances where the wood had been used for forty-five years for fence posts, or something like that. It is said to be very durable. It is very strong, and from certain tests made by the British navy, this iron bark was found to be the strongest of almost all the Australian woods; compared with other woods also in England, it was found very strong. While it has all of these qualities, you must remember there is a certain tendency which it inherits with all its common relatives. That is, a tendency to shrinkage. When the boards are put together in a floor, ceiling or anything like that, they are apt to shrink, and so cannot be well used for such purposes. The aptness to have gum-veins and to be hollow at heart when old, also lessens their usefulness. Still, the iron bark you may consider as the best of all, and I should say that these are

The Ones that ought to be Imported.

E. leucocylon, *E. crebra*, *E. paniculata* and *E. bicolor* are all close allies of *E. sideroploia*, and are popularly called iron barks. Australian gums are largely imported now; why not import these, and especially the first one, rather than those that are brought in? The second best among the species of *Eucalyptus* are what are popularly called the blue gums. We have here what is called hipe gum, *Eucalyptus globulus*. *E. termitis*, *E. haemastoma*, *E. botryoides* are all blue gums. They are highly prized in Australia, and are used for ship-building and also very largely in wheelwright's work for manufacturing wheels and all other parts of wagons. The *Eucalyptus* are said to possess medicinal virtues.

An allied genus, *Syncarpa laurifolia*, found also in some provinces of Australia, and called there the turpentine tree, is said to be exceedingly valuable for use as piles. You know that in some places an ordinary pile driven into the mud will be used up in five to seven years, depending upon the number of teredos which attack the piles. This *Syncarpa* is said to be teredo-proof; and if you see proper to get evidence of this, go over to the Academy of Sciences, and you will find a specimen pile that was a long time in the water, driven where teredos abound, and there is no teredo-mark on

it. It is put down in the Australian books as being teredo-proof. If that is so, if the piles put down in our harbor here are subject to injury from teredos, certainly one of the very first things our people ought to do would be to send over there and get some of this *Syncarpa*. This book gives its location as exactly the same as for almost all of these eucalypts.

Myrtis communis is a myrtle tree; a small sized tree, growing in Western Asia, of some importance for its timber. It may be said to be of local value. The tree is of more importance, because it gives the name to the group. Many other species are of some value, but they are not yet utilized in commerce. Now, a word as to the myrtle. We have a little bit of a plant here which we call myrtle, a little trailing plant, and we are apt to get our idea of the order from that. In fact, I have seen some quite well-informed people who thought the little trailing plant belonged to this order. This myrtle belongs to an entirely different group, hasn't any relation to it. The "trailing myrtle" belongs to the dogbane family; its proper name is "periwinkle."

Among food plants—gnavas, Malay apples, rose apples and a few others are highly prized fruits of moderate-sized trees in the hotter climates of both hemispheres. One of them—a small apple—is very delicious. We get them here only occasionally as preserves. They are never brought. I think, as green fruits.

The Aromatic Fruits.
Among these we have as the most important, the clove tree (Fig. 2), *Caryophyllus aromati-*



Fig. 1. Myrtle in Flower.



Fig. 2. Leaves and Flowers of the Clove Tree.

cus, a native of the Molucca islands, now cultivated in India, Ceylon, West Indies, etc. It is a moderate-sized evergreen tree, and the clove is simply the flower before it opens. You can take a clove, after soaking it in water, and by carefully opening it, see the stamens and pistils; all the parts of the flower are then very



District Telegraph Alarm Box.

nicely shown. They are simply gathered just before they open and are dried.

Allspice is the fruit of a little tree very closely allied to real myrtle; it belongs to the species *Eugenia Pimento*, of the West Indies; now cultivated in the East Indies and countries having the same climate. In fact, some of the trees that are brought here and grown upon grounds as ornaments have a peppery or allspice-like taste, and so get the name allspice tree. The fruits are berry-like—little hard berries, and these are gathered and dried, and are the allspice.

Among the medicine products, we obtain an oil from the myrtle, that is, from the myrtle tree, *Myrtis communis*, which is somewhat valuable, and is used considerably in medicine. The pomegranate, *Punica granatum*—and this

is the genuine pomegranate—is a small tree of India and Western Asia, cultivated in Southern Europe. The flowers are usually scarlet, and yield a red dye. The fruit is greatly valued in warm countries. The pulp of this is used in the manufacture of cooling drinks, so, of course, is of some value in the treatment of sick people. The rind is quite astringent, and is used in medicine and (especially that of the bitter kind) contains tannin, used for tanning the finer kinds of leather. That used in tanning morocco is largely derived from the pomegranate. The bark and roots of the pomegranate tree are also used in medicine, and are of some value, as they possess astringent properties. The fruit has a tough, leathery rind, of a beautiful deep golden color, tinged with red.

The pomegranate we have here is an ally of the squash. The name is given, I think, because of a slight resemblance in the fruit. It is not the true pomegranate at all, referred to in oriental literature, as you will find by reading carefully in these books that refer to it.

The eucalyptus is valuable for medicine, I am informed. I have been told some very strange things about it. I heard a statement that in China people living in eucalyptus groves were healthy, while others, living in places just the same, but out of the groves, were troubled with all sorts of fevers and similar diseases. [Student—"An Englishman who has been to Australia tells me the people have fevers there right amongst these trees, the same as where there are none at all."] I think it needs a great

deal more investigation. The fact is, we find very few if any plants which exert a very marked influence on the atmosphere.

All these stories about plants so poisonous that birds can not fly over them

Will Not Do to Rely Upon.

When we become acquainted with the plant we find it is not so noxious as was represented. On the other hand we find that those which are so exceedingly valuable, filling the air with perfume and all that—we find these stories have to be taken with a great deal of allowance. Although a great deal of valuable matter has been written up here on the coast referring to the eucalyptus, and I have no doubt that from the tree—from this aromatic principle it contains in such abundance—we can obtain a great deal of material which will be more or less valuable, yet it will have to be worked up. There may be a very valuable substance in the tree, as quinine, or that from which it is manufactured, is in the *Cinchona*. The myrtles are ornamental and are grown largely on that account. The eucalyptus is also grown, as it is here, and several species of *Eugenia*; in fact you hardly go into a greenhouse but that you will find them, and here there are more or less of them growing out of doors. The second family,

The Rose Family.

Of the order *Rosaceae*, is made up of herbs, shrubs and trees, found mostly in the temperate climates and pretty largely in the temperate zone. It includes about a thousand species and these differ so much that they have been thrown into three, and occasionally four sub-orders. I have adopted Dr. Gray's plan and we will notice these as three sub-orders; taking up the topics by themselves.

First, the food plants I may say the first sub-order, including Almonds, Peaches and Plums, is made up of plants whose fruits are single; that is, they are single stone fruits. There is a poisonous principle running through all the species of this sub-order, which is allied to the chemical compound, prussic acid, having the same odor and, to a certain extent, the same effects. It is considered by some to be identical with this. It resides mostly in the seeds, leaves and stems. Take the seed of the peach or plum and in its green state you will get an appreciable amount of this prussic acid from it.

The almond, *Prunus communis*, is a native of Persia, and with it we are quite familiar. It is grown here in California pretty largely, and I am told by Mr. Stearns that it can be grown as far north as the north line of the State, of course excepting the mountain and hill tops.

The peach, *Prunus Persica*, is a native of Persia also, and it is an opinion of native botanists that the almond and the peach are sim-

ply varieties of one original form. Compare the pits or stones of the two and you will see they are very much alike, except one being smoother than the other. While we must retain them for convenience under different names, we consider them as originally the same. The nectarine is only a smooth variety of the peach. There are also a great many sub-varieties.

The apricot seems a little between the peach and the plum. The apricot is cultivated, or can be cultivated largely throughout almost all parts of California and would be a very paying crop.

The plum, *Prunus domestica*, a native of Southern Europe. We grow a great many varieties.

The common cherry, *Prunus Cerasus*, is a native of Southern Europe and a plant which has undergone a great deal of modification so that we hardly know what its original form was. The peach is thought to be a variety of some original; what the original was we hardly know.

The plum is *Prunus domestica*. That is the name we give it now, but then we are just as much at a loss as to its original form as in the case of the peach. You may say very safely when you give it a name, that its name is *Prunus domestica*. We give it a name, but we do not mean by that, that this form is entirely separate, that is, that it is a separate species. It is simply a cultivated form of the wild plum, which has another name in Europe.

The timber of wild cherry is inclined to be of a reddish color and is used largely for interior work and for cabinet work. I think there is no wild cherry on this coast large enough to be used. Of medicines there are few of value. The most important are derived from the wild cherry of the East. All cherry-like trees seem to have in them more or less medicinal properties. Probably it is on account of that poisonous principle; for our poisons furnish us our medicines, largely.

The second sub-order may be called the sub-order of roses, etc. In this group, we have an astringent principle running through the whole.

Among the food plants we have a number of berries. The strawberry is one of the best. There are a number of varieties—*Fragaria onca*, *Virginiana elatior* and others. The *Virginiana* seems to be the best of all.

The Raspberries. *Rubus idaeus* is the European form, which is grown here as well as in Europe. *Rubus occidentalis* (black) and *Rubus strigosus* (red). Those two species are our American forms—that is they are the forms to be found east of the Rocky mountains and the ones very largely in cultivation throughout the United States, also on this coast. Of blackberries we have *Rubus villosus*, an American form. There are other forms; these, however, will stand as our representative blackberries and raspberries.

The perfumes of the group are derived almost all from the roses. There are several hundred species of them. The place which may be considered as the geographical center of the roses is away over in Southern Asia, just south of the Himalaya mountains, in the northern part of Hindostan, upon the little valleys between the points of the mountains that run away out where the valley of Cashmere is. There the whole country seems to be one great rose garden. Attar of roses, oil of roses and a great many other rich things—all have roses' perfume.

Medicines.

From blackberry root and some others we get some astringent medicines. [Student—"What is the difference between the oil of roses and the attar of roses?"] There is a little difference in preparation in Japan, though I don't know just what the difference is.

By the way, it is hardly ever pure. The high price is a great temptation to put in all sorts of other materials.

Other plants belong to the genus *Rosa*. The rose, however, may be considered as the principal one. I suppose it must be acknowledged as the ornamental plant of the world. I think there is no question but that it stands at the head of the list.

In the third sub-order, apples and pears, we have what is botanically called a pome for the fruit. The pear, *Pyrus communis*, is a native of Southern Europe and Western Asia, found throughout Syria and the countries lying somewhat eastward of that.

The apple, *P. Malus*, is supposed to have been derived from the wild crab apple of Europe. I am not certain but it is also found in Western Asia. The quince, *Cydonia vulgaris*, is also a native of Western Asia.

Now just take a glance over these fruits. All the more important ones are from our former home,

The Home of our Race,

Away back there in Southwestern Asia. There we got our peach, and as you have seen, the plum, cherry, pear, quince and apple, all came from that same region, so that we have been accustomed to know them now—we don't know how many ages.

Timber of value may be obtained from the apple, pear and quince tree, as soon as large enough. For manufacturing some kinds of fancy articles they are valuable, as the wood takes on a fine polish and is much used. The hawthorn, quince and many others are largely used as ornamental trees, so that taking the order as a whole and especially one or two of the sub-orders, we find it quite important, and yet it is one we could get along without. They

BREEDERS' DIRECTORY.

PURCHASERS OF STOCK WILL FIND IN THIS DIRECTORY THE NAMES OF SOME OF THE MOST RELIABLE BREEDERS. OUR RATES.—Six lines or less inserted in this directory at 50 cts a line per month, payable quarterly.

CATTLE.

R. ASHBURNER, Baden Station, San Mateo Co., Cal., breeder of Short-horn cattle. Pure Bred Bulls for sale, from cows of choice milking strains.

J. BREWSTER, Galt Station, Sacramento Co., Cal., breeder of Short-Horn Cattle.

J. D. CARR, Gabilan, Monterey Co., Cal., breeder of Trotting Horses, Short-Horn Cattle, Thoroughbred Spanish Marino Sheep and Swine.

A. MAILLAIRD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.

W. L. OVERHISER, Stockton, San Joaquin Co., Cal., breeder of Short-Horn Cattle and Berkshire Swine.

PAGE BROTHERS, 304 Davis street, San Francisco, (or Cotate Ranch, near Petaluma, Sonoma Co.): Breeders of Short-Horns and their Grades.

STANTON & POWERS, Sacramento, Cal. Breeders of Jersey Heifers and Bull Calves at low rates. Address L. C. Powers, Sacramento, Cal.

MOSES WICK, Oroville, Butte Co., Cal., breeder of Short-Horn Cattle. Young bulls for sale.

SHEEP AND GOATS.

H. F. BUCKLEY, Hopeton, Cal. Thoroughbred also $\frac{1}{2}$ and $\frac{3}{4}$ Cotswold grade sheep.

MRS. ROBERT BLACOW, Centerville, near Niles Station, Alameda Co., Cal. Pure-Blooded French Merino Sheep for sale.

TIMOS. BUTTERFIELD & SONS., Hollister, San Benito, Cal. Importers and breeders of Angora Goats and Sheep.

N. GILMORE, El Dorado, E. Dorado Co., Cal., importer and breeder of Angora Goats.

LANDRUM & RODGERS, Watsonville, Santa Cruz County. Pure-Bred Angora Goats and Cotswold Sheep for sale.

SEVERANCE & PEET, Niles, Alameda Co., Cal., breeders of Thoroughbred Spanish Merino Sheep.

A. G. STONESEFER, Hill's Ferry, Stanislaus Co., Cal., breeder of Pure-Blooded French Merino Sheep.

L. M. SHIPPEE, Stockton, Cal. Importer and breeder of Spanish Merino Sheep, Durham Cattle and Essex Swine.

POULTRY.

GEO. B. BAYLEY, Cor. 16th and Castro streets, Oakland, Cal. Imported Brahmas and other choice Fowls for sale.

ALBERT E. BURBANK, 43 and 44 California Market, San Francisco, importer and breeder of Fancy Fowls, Pigeons, Rabbits, etc.

M. EYRE, Napa. Bronze Turkeys, Emden Geese, Choice Fowls, Pigeons, Rabbits, Ferrets.

WILLIAM KNOWLES, Brooklyn, Alameda Co., Cal., has for sale Eggs for Hatching, carefully packed, from pure-bred Bronze Turkeys, at \$7.50 per dozen; Brown Leghorns at \$4.00 per dozen; Houdans, White Leghorns and Buff Orpingtons at \$1.00 per dozen; two dozen for \$5.00. Sent C. O. D. to any address.

Mrs. L. E. McMAHAN, Dixon, Solano Co., Cal. Bronze Turkeys now ready for sale from the best imported stock; also eight varieties of choice Chickens; Eggs in season can be purchased very reasonably.

Mrs. L. J. WATKINS, Santa Clara. Premium Fowls. White Leghorn, S. S. Hamburg, Game Bantams, and Aylesbury Ducks. Also, Eggs. 21v8-3t

Live Stock Notices.

The Imported Draft Stallion, ADOLPH,



Will make the Season of 1875 at the Stable Proprietor, COR. FOURTEENTH AND MISSION STREETS, SAN JOSE, COMMENCING MARCH 1st, AND CONTINUING FOR NINETY DAYS.

Adolph was imported from Belgium to Illinois in June, 1871, and to California in October last. He is a pure-bred Draft Horse, of the French Farnamback stock, of a dark brown color, good life, kind disposition and fine movement for a horse of his size. Is seven years old, 16 $\frac{1}{2}$ hands high, and weighs 1,650 pounds.

Terms, For the Season - - - \$25.00. Payable during the season in U. S. gold coin, or \$10 paid down and \$15 payable when mare is known to be with foal.

Mares from a distance can be kept on good pasture and cared for at \$4 per month. All accidents and escapes at the risk of the owner.

I have imported 12 head of the same stock of horses from Illinois, and invite examination and comparison with any stock of the class in the State. Four three-fourth blood stallion colts for sale. Can be seen on my farm, three and one-half miles east of the city.

L. V. WILLITS.

Thoroughbred Spanish Merinos FOR SALE.

60 one and two-year old Thoroughbred Spanish Merino Rams, California bred, from Ewes imported from Vermont, and sired by Severance & Peet's Celebrated Ram "Tremont," and by their Ram "Green Mountain," which took the first premiums at the Bay District and State Fairs. Last shearing—35 $\frac{1}{2}$ lbs.—years' growth.

Also, about 100 Ewe and Lambs, all of "Green Mountain" Stock, bred this year.

B. F. WATKINS, Santa Clara, Cal.



Pure Blooded French Merino Rams For sale by MRS. ROBERT BLACOW, of Centerville, Alameda County, Cal., near Niles Station, on the Western and Southern Pacific Railroad.

These Sheep are guaranteed of pure descent, from the French Imperial Flock at Rambouillet, and are equal, if not superior, to any of this breed in size and quality of wool, and are proved to be the heaviest shearers in the world.



GABILAN HERD

Spanish Merino Sheep.

I have just purchased of Mr. George Hammond, of Vermont, three car-loads of Spanish Merino Sheep, (335 head, Ewes and Bucks) which, with others that I purchased last Fall, (also direct from Vermont) makes my band of Thoroughbred Spanish Merinos about 650 head.

I am prepared to sell both Bucks and Ewes, of Pure Blooded Spanish Merinos—as good as can be had in the World—so says Mr. Hammond. Parties interested will please give me a call. I am ten miles from Salinas City, Gabilan P. C., Monterey county.

J. D. CARR.

N. B.—I have also Good Graded Bucks for sale, and can dispose of some Good Graded Ewes. J. D. C.

12 Short-Horn Bulls,



fat and sleek, thoroughbred, just from Kentucky, at Saxe's Stables, 35 Ritch Street, between Polson and Harrison, two blocks from Grand Hotel. Inquire at Saxe's Stables, or Room 32 Russ House. 3v9-3m

FOR SALE.

400 Pure Blood French Merino Rams,

On the Orlinda Ranch, six miles west of Hill's Ferry, Stanislaus County, Cal. All Rams delivered at the railroad, free of charge. Terms easy and prices liberal.

A. G. STONESEFER.

Poultry Breeders.

M. FALLON,

Cor. Seventh & Oak sts.,

OAKLAND, CAL.

Light & Dark Brahmas, Buff, White and Partridge Cochins, Spangled, Golden and Silver Polish, Spangled, Golden and Silver Hamburgs, Pure White-faced Black Spanish, White and Brown Leghorns, Silver Grey Dorkings, Houdans, Silkies, Black-Red Games, Bronze Turkeys, Rouen and Aylesbury Ducks.

All from Premium Stock of Best Strains.

Fowls of above varieties for sale; also, Chickens in their season. Eggs packed with care and sent in rotation as orders are received. 1v9-16p-1f

Bronze Turkeys

12 Gobblers from 8 to 20 months old, 22 to 40 lbs each, for sale now.

Hens 14 to 18 lbs.



Emden Geese

40 to 50 pounds per pair at maturity.

BLACK

CAYUGA DUCKS,

Games, Brahmas, Leghorns, Houdans, Bantams, etc.

Eggs, fresh, pure, true to name; well-packed so as to hatch after arrival.

For Illustrated Circular and Price-List, address

M. EYRE, Napa, Cal

FERRETS.

RABBITS.

PIGEONS.



Woodland Poultry Yards.

W. J. PRATHER, - - Proprietor.

PRICE LIST:

Eggs PER DOZEN.	FOWLS PER TRIO.
Light and Dark Brahmas.....	\$4.00
Buff and Partridge Cochins.....	5.00
White Cochins.....	5.00
White Poland.....	8.00
Houdans.....	4.00
Spangled Hamburgs.....	6.00
White Leghorns.....	4.00
Brown Leghorns.....	6.00
Golden Seabright Bantams.....	5.00
Bronze Turkeys.....	8.00
Rouen Ducks.....	4.00
Black Cayuga Ducks.....	4.00
Aylesbury Ducks.....	4.00



LOOK!

ALBERT E. BURBANK, Importer and Breeder of Fancy Fowls, Pigeons, Rabbits, etc. Also Eggs for hatching from the finest of imported stock. Eggs and Fowls at reduced prices. Send for Price List.

ALBERT E. BURBANK, 1v8-3m 43 & 44 Cal. Market S.F.

Commission Merchants.

STEELE, ELDER & CO.,

WHOLESALE

COMMISSION MERCHANTS

FOR THE SALE OF

California Dairy Produce,

GRAIN & QUICKSILVER.

204 Front Street, San Francisco.

AGENTS FOR THE

Missouri,

Kentuck,

Ida Clayton

and Yellow Jacket

Quicksilver Mines.

All orders for Supplies and Machinery for Mines promptly attended to.

RETORTS, POWDER AND MINERS' TOOL

Supplied at Importers' Prices

3v9-cow-bp



H. K. CUMMINGS.

1858.

H. E. BAYSTON.

1875.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission House,

ESTABLISHED 1858.

No. 424 Battery street, southeast corner of Washington, San Francisco.

Our business being exclusively Commission, we have no interests that will conflict with those of the producers.

MOODY & FARISH,

Wool Commission Merchants,

No. 210 Davis Street, S. F.

Eureka Glycerine and Carbolic Sheep Dip; Sheep Shears; Wool sacks and Twine constantly on hand at low prices.

Davis & Sutton, Commission Merchants, For California Fruits; also for the sale of Butter, Eggs, Cheese, Hop, Green and dried Fruits, etc., 75 Warren street, New York. Refer to Anthony, Huber, Cashier, Tradesmen's National Bank, N. Y.; Ellwanger & Barry, Rochester, N. Y.; C. W. Reed, Sacramento, Cal.; A. Lusk & Co., Pacific Fruit Market, San Francisco, Cal.

California Farmers Mutual Fire Insurance Association.

Office, 6 Leidesdorff St., - San Francisco.

Directors:

A. WOLF, A. W. THOMPSON, I. O. STEELE, L. G. GARDNER, J. C. MERRYFIELD, J. D. BLANCHARD, G. P. KELLOGG, Treas.

Finance Committee:

L. G. GARDNER, J. C. MERRYFIELD, A. W. THOMPSON

Trustees:

J. M. HAMILTON, Lake Coll. C. STEELE, San Mateo Co. J. C. MERRYFIELD, Solano Co. A. B. NALLEY, Sonoma Co. G. W. COLBY, - Butte Co. O. S. ANNOTT, S'ta Bar's Co. H. B. JOLLEY, - Merced Co. A. W. THOMPSON, Sonoma Co. A. WOLF, San Joaquin Co. E. W. STEELE, S.L. Chisapo Co. J. D. BLANCHARD, Pres't. W. H. BAXTER, Sec'y.

This association is organized for the purpose of affording the farmers of this State the means of safely insuring against loss by fire, at actual cost of insurance, without being connected with city risks. a822-tf

For Bleaching or Washing In Cold or Warm Water.

FALKINBURGH & CO'S

GRANGER SOAP

HAS NO EQUAL.

Don't fail to give it a trial, and be assured of a saving of money, time and labor. It speaks for itself. Warranted to accomplish more and do greater execution than any other soap. It is pressed, wrapped and perumed.

ONCE USED, ALWAYS USED.

Sold by the principal Grocers throughout the country. Manufactured by

FALKINBURGH & CO.,

Oregon St., below Front, bet. Washington and Jackson, San Francisco, Cal. 4v8-10p

J. Y. WILSON.

WM. FAULL

W. L. MERRY

WILSON, MERRY & CO.,

Provision Packers

And Dealers in

SALTED AND SMOKED MEATS, Lard, Etc.

PROSP'S BLACK POINT PACKING HOUSE.

We respectfully call the attention of Farmers and Stock Raisers to the fact that we are always prepared to purchase hogs, cattle and sheep at full market prices, for Cash, and shall be glad to answer promptly any inquiries addressed to us on the condition of the Market.

Office No. 223 Sacramento St., Near Front, San Francisco.

J. M. NEVILLE.

G. H. BRYANT

NEVILLE & CO'S FACTORY

113 Clay and 114 Commercial Sts.,

SAN FRANCISCO.

BAGS of All Kinds,

TENTS, All Sizes and Descriptions.

HOSE for Hydraulic U-e.

CANVAS, All Numbers.

TWINE for Sewing, Etc.

GREAT EASTERN AND WESTERN

Horse and Mule Market,

Cor. Fifth & Bryant Streets, San Francisco.

A choice stock of Carriage, Draft and Farm Horses on hand, and constantly being received from the East. All classes of Horses and Mules purchased and sold.

WASHBURN & RAN DALL, Props

CARD.

EXCELSIOR FORCE PUMP

greatly improved. COPPER LINED BRASS VALVES AND VALVE SEATS every way equal to a BRASS PUMP. PRICES reduced. Send for Circular. BRITTAN, HOLBROOK & CO., Agents.

ALEX. BUSWELL,

BOOK BINDER, PAPER RULER

AND BLANK BOOK MANUFACTURER.

521 Clay Street, S. F.

Blank Books Ruled, Printed and Bound to Order

Miscellaneous Notices.

LOOK TO YOUR INTEREST!



MANUFACTURED BY THE

PACIFIC RUBBER PAINT COMPANY.

For many years chemists and others have experimented in mixing India Rubber with Oil, Lead, etc., in order to produce a perfectly

WATER-PROOF PAINT,

And at last successful in their effort, have formed a chemical combination of Rubber with oil paints, which when applied becomes hard and elastic enough not to crack or peel, from the action of the atmosphere, with a gloss equal to work finished with varnish. The

Pacific Rubber Paint Company,

Of San Francisco, California, together with the RUBBER PAINT COMPANY, of Cleveland, Ohio, own all the patents covering perfect combinations like the above, which is known and sold by them as "Rubber Paint."

The great demand for the Rubber Paint induced this Company to purchase of the Cleveland, Ohio, and New York Rubber Paint Company, the patents for this coat, and are now manufacturing this paint in all colors, in large quantities, and have put the price below the best lead and oil paints. The Rubber Paint is prepared in Pure White, in all Cottage and other colors, comprising any number of different shades and put up ready for use, being a great advantage, as it can be spread by any one.

It Flows From the Brush Freely. Works Easily, and Settles Promptly. It is available for all kinds of Painting,

And may be used with equal advantage on iron, stone, wood, brick, or plaster.

The Rubber Paint will cover more surface, cover it better, and last much longer than Lead and Oil. Two coats of the Rubber Paint is better than three coats of Ordinary Paint.

SAN JOSE, CAL., March 20, 1875.

PACIFIC RUBBER PAINT CO., San Francisco.—Gentlemen:—I have used and sold the Rubber Paint in this city during the last four years. We have about one hundred buildings painted with the Rubber Paint. Among the prominent ones are the State Normal School, Gates Institute, City Market, the residence of Josiah Belden, J. W. Hinds, President Gold Note Bank, J. R. Arquette, Santa Clara, etc. It has never failed to give satisfaction, with a test of from one to four years, so that its durability has been well tested. My sales last year were nearly five thousand gallons.

Truly Yours, AMASA EATON.

REFERENCE:

CAPT. EDWIN MOODY, San Francisco.
AMASA EATON, San Jose.
WILLEY & RINALDO, San Jose.
WALLACE EVERSON, Oakland.
F. K. SHATTUCK, Oakland.
ISAAC KNOX, ESQ.

Office and Factory.

No. 207 Sacramento Street,

SAN FRANCISCO, CAL.

JESSE HEALY,
ANDREW DE FOREST, } Proprietors.
mar27-sa

Office of Drain Pipe Works,

S. W. Corner Sacramento and Montgomery Sts., S. F.

DRAINS

CONSTRUCTED

In any part of the State, and

Work Warranted

E. T. MENOMY
Proprietor.

bp-eow-1 yr

LAND PLASTER.

(Sulphate of Lime.)

This fertilizer is especially well adapted to California lands and climate, and is destined to be used to immense advantage.

PRICES GREATLY REDUCED.

In bulk, \$10 per ton; in barrels or bags, \$12.50.

Golden Gate Plaster Mills.

LUCAS GESNER & CO.,

215 and 217 MAIN STREET, SAN FRANCISCO.

THE PACIFIC COAST
12 Per Cent.

CONSOLS.

Interest Payable Monthly, in Gold and Silver.

A MINING, REAL ESTATE AND LAND COMPANY.

Incorporated February 12th, 1875.

Capital Stock, --- \$27,000,000,
IN CONSOL. SHARES OF \$1 EACH,

Of which 13,500,000 shares constitute the Sinking and Investment Fund. Interest payable monthly at the rate of 12 per cent. per annum. Certificates of CONSOL. shares receivable at their par value in exchange for any Mining, Real Estate or Landed Property of the Company.

Directors:

T. PHELPS, W. S. REYNOLDS,
B. M. FETTER, L. K. GOODMAN,
J. H. BATES.

Certificates of CONSOLS only issued at the rate and proportion of 50 per cent. of the cash valuation of property to be represented in CONSOLS shares. Dividend paid from profits and sales of property, and only on shares of CONSOLS that have been issued for property valued and entered on the books of the Company.

Principal Office, 526 Kearny Street.

Principal Depository Agency, Bank, San Francisco.

Depository Agencies for payment of interest on CONSOLS will be established in the principal cities in the United States and Canada, and in London, as when required.

Interest payable on the 5th of each month at any Depository Agency of the Company.

Certificates of interest-bearing CONSOLS, Class A, First Series, issued for Mining Property in Washoe, Storey and Lyon counties and on the Comstock Lode in Nevada, will be ready for delivery to subscribers and purchasers on or before April 10th 1875.

Orders for not less than one hundred shares of CONSOLS, with the purchase money required (\$1 per share), may be sent through Wells, Fargo & Co., at our expense. No certificate of stock issued for less than twenty shares. All orders must be addressed, "Office of the CONSOLS M. R. E. and L. Company, 526 Kearny street, San Francisco."

T. PHELPS, President
W. S. REYNOLDS, Secretary.

apr3-a-bp

ENCOURAGE HOME INDUSTRY.

C. C. Burr & Co's

TRADE MARK

DOUBLE SUPERFINE

Mustard

50 per cent. Better than any Imported Mustard.

Ask Your Grocer for it.

9vt-eow-bp.

50 per cent. Better than any Imported Mustard.
Ask Your Grocer for it.

THE BOOKWALTER ENGINE.

Effective, Simple, Durable and Cheap.

The want of a small Portable Engine and Boiler, so constructed as to be furnished at a price within the reach of every one, has long been felt. This has been accomplished in the Bookwalter Engine, an engine which for Effectiveness, Simplicity, Durability and Cheapness, can not be surpassed.

For processes requiring light power, such as wood-sawing, running cotton gins, elevators, printing presses or cheese factories, pumping water, a large variety of farm work, and in fact all light manufacturing purposes, this engine is expressly adapted, both in construction and cost.

Prices, delivered at the Railroad Depot, San Francisco:

3-Horse Power.....\$290 00
4½-Horse Power.....350 00

FOR SALE BY

AUZERAI & POMEROY,
SAN JOSE, CAL.

SUPPORT HOME INDUSTRY.

WHEATEN STARCH,

MANUFACTURED BY

J. JOHNSTON.

SAN JOSE, CALIFORNIA.

This starch is made from the best of wheat, and is used by the laundries and hotels, who pronounce it Superior in Strength and Fine Satin Gloss to any imported starch—one pound being equal to one and a half pounds of Eastern starch.

Grangers' Bank of California

INCORPORATED APRIL 27th, 1874.

Capital \$5,000,000, in 50,000 Shares
of \$100 each.

Directors:

PRESIDENT—JONATHAN V. WEBSTER..... Alameda
V. PRESIDENT—C. J. CRESSEY..... Stanislaus County
THOMAS MCCONNELL..... Sacramento
JOHN G. HILL..... Ventura County
J. V. WEBSTER..... Alameda County
JUSTICE C. MERRYFIELD..... Solano County
J. LEWELIN..... Napa County
GILBERT W. COLEBY..... Butte County
J. P. CHRISMAN..... Contra Costa County
F. J. WOODWARD..... San Joaquin County
C. S. ABBOTT..... Monterey County
P. A. CRESSEY..... Secretary.

Office, 415 California Street,

SAN FRANCISCO. - - CALIFORNIA

The Bank was opened on the first of August, 1874, for the transaction of ordinary Banking business.

Current Accounts are opened and conducted in the usual way, and interest at the rate of 14 per cent per month is allowed on the minimum monthly balance.

Deposits received in sums of \$50 and upward received, and receipts given for the amounts, repayable on 30 days' notice of withdrawal. These deposits bear interest at a rate varying with the current rate of discount.

Deposits for Fixed Periods are received, and interest allowed at the following rates: Three months, 6 per cent.; Six months, 7 per cent.; One year, 8 per cent.

A share of the patronage of the public is solicited.

LEVI, STRAUSS & CO.,

Patent Riveted

Clothing,

14 & 16 Battery St.,

San Francisco.



Patented May 12, 1873.

USE NO OTHER, AND INQUIRE FOR THESE
GOODS ONLY. vov-hp

DAVID WOERNER,



COOPER,

No. 104 and 112 Spear St., San Francisco

Wine Casks, Tanks, Tubs, Pipes, Beer Barrels, etc., Manufactured at Short Notice and LOW RATES.

LUMBER for CASKS, etc., TANKS, etc. Steamed and Dried if required. eow-bp.

Union Box Factory,

GEO. W. SWAN & CO.,

115 and 116 Spear St., bet. Mission & Howard
SAN FRANCISCO.

Apple, Pear, Plum, Peach, Cherry, Grape, Orange, Lime and Wine Cases.

Tomato, Potato, Fig and Raisin Boxes.

Strawberry, Raspberry and Blackberry Chests and Drawers, and Baskets for all kinds of Berries.

Peach and Picking Baskets, Butter Chests and Boxes, Cheese Boxes, Square and Round Egg Carriers. Drums for Figs, Cherries, Raisins, and for other Dried Fruits.

Free Packages—Boxes not to be returned—a good article, costing less than Sawed Boxes.

Lard Caddies, Coffee and Fruit Caddies.

Turkey and Chicken Coops, Bee-Hives, Etc. Packing Boxes for Dry Goods, Cigars, Candles, Candied Fruits, Honey, Macaroni, Crackers, Sugar, Soap, Boots, Etc.

In fact, every style of Boxes manufactured in the Union, and turned out in the Best Style at Favorable Prices. Orders from the country well attended to.

Geo. W. Chapin, Real Estate Agent, 434 Montgomery St., San Francisco, buys and sells Ranches in all parts of the State. City Real Estate exchanged for Country Property. MONEY LOANED. Post Office Box 1120

WAKELEE'S

Squirrel Exterminator.

The Best and Cheapest Poison for the Speedy Destruction of Squirrels, Rats and Mice.

H. P. Wakelee, Druggist, San Francisco.

This POISON is now well known throughout many of the counties of this State, and has given complete satisfaction.

WAKELEE'S SQUIRREL EXTERMINATOR saves time by being fully prepared for use, will not deteriorate by age, prevents loss of both time and money in preventing the distribution of inefficient mixtures. Compared with all other poisons is least liable to cause accident to man and the domestic animals; it's of smaller bulk, and therefore more convenient to handle in the field.

That Wakelee's Squirrel Exterminator is the Best and most economical Poison, hundreds of farmers will cheerfully bear testimony. The following is what several consumers—well known citizens and farmers think of it:

[From General H. M. Naglee, San Jose.]

Messrs. RHODES & LEWIS, Druggists, San Jose:

At your request, I would state that Wakelee's Squirrel Poison is fully prepared for use, slaughters the squirrels in the most satisfactory manner, and is superior to anything heretofore used by me.

HENRY M. NAGLEE.

[From the Squirrel Inspector, San Lorenzo District, Alameda County.]

H. P. WAKELEE:

Dear Sir:—I have used your Squirrel Exterminator in this district, and find that it fully comes up to its recommendation, and is the most efficient poison yet used by me.

GEORGE HYDE,

Squirrel Inspector, San Lorenzo School District.

[From John T. Ward, Esq., Napa.]

H. P. WAKELEE, Esq.:

Dear Sir:—We have given your Squirrel Exterminator a thorough trial, and are perfectly satisfied with its workings. It is a dead shot; fifteen kernels at each squirrel hole will kill almost every squirrel, and after tilting up the holes, few are found re-opened.

We poisoned one field, which was badly infested; to secure the scalps, we placed the poison two feet from the holes. In almost every instance it killed before the squirrel could get back to the hole. In that field we found blackbirds and meadow-larks dead from its effects, and dogs and cats which ate the dead squirrels were also killed. So completely was the field rid of the vermin, that the grain stood thickest about the stumps and trees, where always before the squirrels had destroyed the seed.

I can recommend your Exterminator to all who are troubled with squirrels. It does all you claim for it, and is the most effective poison I ever used.

Perhaps the best recommendation I can give it is, that after one season's trial, I am so well satisfied with it that I shall use it in larger quantities this season.

Very truly yours,

JOHN T. WARD.

[From well known farmers of San Luis Obispo County, El Paso de Robles Springs.]

H. P. WAKELEE:

Dear Sir:—In reply to your note, we would state that after having given your Squirrel Exterminator a thorough trial, we can unhesitatingly pronounce it the most efficacious and destructive agent we have ever employed against squirrels.

We have used strychnine and phosphorus, and can confidently state that as to their merits, compared with those of your Exterminator, either as regards cheapness or destructibility, the odds are greatly in favor of the Exterminator. Many of our neighbors are using it, and with the most satisfactory results.

The squirrels, many of them, die before they can get to their holes, and fields which a few weeks ago swarmed with the pests, are now comparatively free.

Respectfully yours,

W. D. ILLINGWORTH,
C. D. MOREHOUSE,
W. T. JOHNSON.

[What the farmers of Watsonville, Santa Cruz County, think of "Wakelee's Squirrel Exterminator."]

H. P. WAKELEE:

Dear Sir:—This is to certify that we have bought and used your preparation for poisoning squirrels, or what you call the Squirrel Exterminator, and have found it the best of anything we ever used.

Respectfully yours,

H. O. STRUVE,
DANIEL MCCUSKEY,
CHRISTIAN KORM,
JAMES STRUVE,
W. WILLIAMS,
M. A. DREW,
L. HELLMER.

***** "All who have tried it speak highly of its merits."

SANDERSON & DUNN,

Commission Merchants, El Paso de Robles Springs.

***** "The lot ordered was duly received and was a great success."

WARD BROTHERS, Napa.

***** "You can use my name to recommend it most highly."

CAPTAIN O. P. LOW,

Santa Barbara.

***** "It is all that you recommend it to be. If the farmers will all use it, they will have no further trouble from squirrels."

C. W. McKELVEY,

Porterville, Tulare County.

H. P. WAKELEE, Druggist,

Importer of Foreign and Domestic
DRUGS AND CHEMICALS.

Agent and Manager Golden City Chemical Works,

Cor. MONTGOMERY AND BUSH STREETS, S. F.

EMPLOYMENT.

I want 1,000 agents to canvass for the COMPLETE HERBALIST and THE GROWING WARD. I will give such terms and furnish such advertising facilities that no man need make less than \$200 per month and all expenses—no matter whether he ever canvassed before or not. Address Dr. O. PHELPS BROWN, No 31 Grand street, Jersey City, N. J., and full particulars will be sent by return mail.

Continued from Page 257.

furnish in the United States—taking away the apple and a few others—but the luxuries, both as to ornaments and as to their fruits we have given us.

The Pulse family, *Leguminosae*, of which beans and peas are representatives—a very useful order, by the way—is made up of herbs, shrubs and trees, including more than 6,000 species, standing as you see next to the composites in point of numbers.

Food plants: First, the bean, *Phaseolus*. Of this there are several species. *P. vulgaris* is the pole bean of India, also grown here. The Lima bean, *P. lunatus*, instead of being a native of South America, as the name "Lima" would imply, is a native of India, just a little beyond the home of the Asian rose. Peas belong to the genus *Pisum*; species, *sativum*, a native of the old world. There is hardly anywhere a place they will not grow and in some parts of the world they furnish the poorer classes a great amount of food. In India, there is a species under the name of "Chowler," "Soy" is in India, also the pigeon pea. Lentils are grown in Egypt. The peanut is grown in America. This peanut is a little peculiar in that it sends its pods down into the ground, after it has flowered, and there ripens them.

Forage plants: Under this head we have the tares, which are grown largely in Europe, (*Vicia sativa*) and also in the far East; that is, portions of Asia. The tares resemble, to a certain extent, lucerne or alfalfa. I have seen them grown simply as an experiment. Different clovers come under the genus *Trifolium*. The principal one is the red clover of Europe, *T. pratense*. Another species and white clover, *T. repens*, are also largely grown in Europe. I saw quite a number of other *Trifoliums*, I take it, growing wild about here. A very great addition has been made to clovers, what is called alsike, which probably would grow well here. These are annuals, biennials or perennials according to the climate where they are grown. In the East, people used to have great discussions whether red clover was biennial or perennial. It was finally decided to depend upon conditions of climate. Lucerne, *Medicago sativa*, is grown in Europe, used as a forage plant and also for green manuring. Within a few years it has come around to us here under this name, *alfalfa*. I do not know whether we will succeed in introducing it in the East or not. An attempt was made to introduce it under the old name, lucerne, from England. It failed. Now the attempt is made under the name of alfalfa. Whether it will fail or not I do not know; people seem to like the name alfalfa better than they did lucerne, and are trying it.

Timber plants: From your acquaintance with the order you would hardly expect timber plants in it, yet there are many of exceeding importance. First, acacias, which are largely grown here as shrubs, in Australia are large trees. Their wood is of great value. *Acacia melanoxylon* produces a dark colored, almost black wood in parts of Australia, which is considered almost equal to mahogany; it seems to take on a polish just about as well. Red sandal wood is obtained from *Pterocarpus santalinus*, a native of India. The wood is of a red color, very heavy, close grained, considerably used for very many purposes. Its wood contains a good deal of coloring matter. This is obtained by cutting the wood into small chips and boiling it. *Jamacia ebony*, which is sometimes called "green ebony," is obtained from *Brya Elaeagnus*. It is a small tree some thirty feet high, yielding a hard wood of a brownish color and is used quite extensively.

Rosewood, so largely used in the manufacture of furniture, is obtained principally from two trees, *Dalbergia latifolia*, a smallish tree in India and *D. nigra* of Brazil.

This Brazilian is considered to be the best and so the Brazil rosewood is recognized as standing at the head of the list. Take any piano—the veneering is usually rosewood. Usually only ordinary wood is covered over with a thin shaving. You need not expect to get solid rosewood, on account of its costliness. I have seen a great many piano lids of ordinary white pine covered over with rosewood veneering. In some cases the rosewood itself is imitated. [Student—"Is it not generally true that these very heavy woods check and split off when used in large masses?"] This is a great deal the case. It might however be seasoned and prevent this. Another thing, a lumber might be exceedingly valuable but brittle, strong in certain ways, but would not endure the ordinary wear and tear of everyday use.

Mora wood, *Mora excelsa*—and you will find it in the market under the name mora—is a native of tropical America. It is a large tree, growing one hundred and fifty or two hundred feet high, having a very fine dark brown wood, strong and durable. It is said the Mexicans use it for shipbuilding. It is also suitable for cabinet work. Yesterday I was visiting some manufacturing establishments, and found that they were using some of this mora wood. You take it up, it is almost like taking up that amount of iron. It is very full of a very peculiar, resinous material, which seems to give it its weight. In the Eastern States we have locust wood, from a native of Europe grown largely throughout all the United States. Lately, for making wagon hubs in this State, the wood of *Pseud-acacia*, or false acacia, has been used. The honey locust, *Gleditsia triacanthus* and different species, is a large tree in the Eastern United States, growing sometimes to the size of two feet in diameter, has a very heavy, firm wood, used, like the other, for making wagon hubs. The wood of this last

has a dark color, not quite as dark as ordinary walnut. Among the medicinal products is liquorice, from a native of Europe. That is, the liquorice roots are gathered and used. Senna is from the far East. The Calabar bean is also from the Eastern continent.

Gums and Balsams.

First, is gum tragacanth, derived from a species of *Asragalus*, growing in Western Asia. Gum Arabic, so largely used for mucilage, is derived from a species of acacia. The Western Asiatic and a Western African species furnish the most of the gum Arabic that we have. Probably, some of these acacias here would furnish a pretty good gum. Gum kino is derived from some Indian trees. Gum copal, used so much in copal varnish, is from trees of Eastern Africa and adjacent countries. There are a number of other gums of more or less value. Balsam Peru, balsam tolu, and a number of others, are from South American trees, so that the order is remarkably full of this kind of products.

Dyes.

The one of the most importance is indigo, derived from a little plant, *Indigofera tinctoria*, found in the East Indies, and from a wild species, *I. anil*, found in the West Indies. It is a little plant, more or less shrubby, and is cut about as we cut clover hay, brought in green, thrown into large vats and a little water turned on. A fermentation takes place. In time the coloring matter turns dark, almost black. After a while the vats are drained and the matter is found at the bottom and our indigo is derived from it. It is, perhaps, the most widely used of any of the dyes we have.

Brazil-wood, used largely as a dye, is from South America, from the *Caesalpinus*. It is chopped up, and the coloring matter is extracted. Logwood, which furnishes one of the best red dyes we have, is also derived in the same way from one of the South American trees—also a number of other dyes of more or less importance.

We have further the use of the lupines here on our coast in fixing the sands of the beach. In a drive over the other side, across to Seal Rocks and the Cliff House the other day, I noticed great tracts had been tied down, as it were, and the heretofore drifting sand was secured by this growth. It was a novel use for these plants and quite peculiar.

PATENTS & INVENTIONS.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

[FROM OFFICIAL REPORTS FOR THE MINING AND SCIENTIFIC PAPERS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.]

By Special Dispatch Dated Washington, D. C., April 13, 1875

FOR WEEK ENDING MARCH 30.

STEAM GENERATOR.—Sabra R. Mathewson, Gilroy, Cal.

ROTARY REVERSING AND CUT-OFF VALVE.—John C. H. Sint, S. F., Cal.

ORE CRUSHER.—David Turnbull, J., Coulterville, Cal.

GAGE QUILTER AND CORDER.—George Vincent, Stockton, Cal.

GUIDE ATTACHMENT FOR SEWING MACHINE PRESSER FEET.—George Vincent, Stockton, Cal.

FIRE ALARM REGISTER.—Daniel T. Phelps and Charles W. Edmunds, S. F., Cal.

TRADE MARK.

FOR PREPARATION TO BE USED ON SHEEP.—Redington, H. Stetter & Co., S. F., Cal.

*The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue. NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & Co., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with strict security and in the shortest possible time.

The Russell End-Shake Thresher.

Read what Farmers and Threshers Think of it.

THE BEST IMPROVEMENT MADE.

CONCORD, Cal., September 12th, 1872.

MESSES. TREADWELL & Co., San Francisco—Dear Sirs: In answer to your favor of the 5th inst. I beg to inform you that your patent shoe is by far the best improvement made thus far in the cleaning apparatus of threshing machines. It has not only given me perfect satisfaction in the work performed, but also saved me a good deal of the time required by other shoes to keep them in good trim; I cannot but feel satisfied that, eventually, they will be the only ones used as soon as the shoe will be known.

Owners of machines (and, I may say, some of them considered to be the best judges,) contemplate to make the alteration on their machine for the next year.

Very respectfully,

MIKE CAVANAGH.

THE BEST SEPARATOR ON THIS COAST.

TURLOCK, Cal., February 10th, 1875.

MESSES. TREADWELL & Co., San Francisco—Dear Sirs: In regard to the Russell Separator and Laufenburg Shoe, they give entire satisfaction, running steadily and doing good work from the start, giving us no trouble whatever, and it is without doubt the best separator on this Coast. Everyone that saw it liked it, without an exception. Yours with respect,

STEPHEN H. CRANE.

OUR IMPROVED HAINES' HEADER,



With Compound Leverage,

Doing away with all Ballast or Weights,

Either on the Lever or Frame; will be appreciated by Header Men. Also, a new device for driving the Knife, making the Header run one horse lighter than any header ever imported. The driving of the Reel is an improvement; in turning, the Reel runs just as fast as when driving straight ahead. The improvements will be found to meet the demands of California trade.

Our Excelsior Mowers are Improved for 1875.

Three Sizes—"Junior," "Medium" and "Senior."

J. I. CASE & CO.'S

SEPARATORS AND STEAM ENGINES

Are the Largest Works of the Kind in the World.

The Threshers and Engines are Made Expressly for this Trade.

Pitts' Down and Mounted Powers, "Foust's" Hay Loader, and Keller & Co's Sulky Revolving Hay Rake,

An age in advance of any other Rake. See these goods before buying; they can be found with us only. Our Stock of Implements is Complete.

THRESHERS, ENGINES, POWERS, HEADERS, REAPERS, MOWERS, RAKES, HAY PRESSERS, CORN PLANTERS, CORN CULTIVATORS, CORN SHELLERS, OILER AND WINE MILLS, HAY CUTTERS, DERRICK FORKS, BELTING, PUSH CARTS, PLOWS, HARROWS, CULTIVATORS, GORHAM'S EDGERS AND CULTIVATORS COMBINED, FISH BROS., PACIFIC WAGON, REGULATOR WINDMILLS AND PUMPS, ETC.

KELLER & CO., 43, 45 & 47 J Street, Sacramento, Cal. SEND FOR CIRCULAR.

1874. GUIDE AND CATALOGUE 1875. FREE.

To persons contemplating purchasing I will send my ILLUSTRATED, DESCRIPTIVE CATALOGUE and GUIDE to the VEGETABLE and FLOWER GARDEN WITHOUT CHARGE. It contains the most extensive and valuable list of



Flowering Bulbs, Roots and Plants, Semi-Tropical Trees, Ornamental Shrubs, Fruit and Shade Trees, etc., ever offered in this market. It tells how to successfully grow the Australian Blue Gum, the Monterey Cypress, Pine, etc., and the proper method of Cultivating Tobacco on this Coast.

*My stock of seeds is in part my own raising and in part direct importations from the best European and Eastern growers, and is unsurpassed in all respects by that offered by any other establishment. 100,000 Australian Blue Gums and Monterey Cypress in boxes at from \$30 to \$50 per 1,000, raised at my own Nursery at San Rafael.

R. J. TRUMBULL.

Grower, Importer, Wholesale and Retail Dealer in Seeds, Shrubs, Trees, etc.

20v8-6m-16p

427 Sansome street, S. F.

NEW CROP OF BLUE GUM SEED.

GRASS AND CLOVER SEEDS. FLOWER AND VEGETABLE SEEDS. TREE AND FRUIT SEEDS.

OF EVERY DESIRABLE VARIETY AND OF THE BEST QUALITY; OFFERED AT WHOLESALE OR RETAIL, BY

GEO. F. SILVESTER, SEEDSMAN,

No. 317 Washington Street, SAN FRANCISCO

PETERSEN'S PATENT BEEHIVE.

For Sale at the Union Box Factory, 116 Spear street, San Francisco. Send for free illustrated circular, with "Treatise on Bees," to

P. O. PETERSEN,

Oakland Post Office.

Improve Your Poultry,

IT COSTS NO MORE TO KEEP GOOD FOWLS THAN POOR ONES!

OAKLAND POULTRY YARDS,

Cor. 16th and Castro streets, Oakland, Cal.

Eggs for Hatching

GUARANTEED FRESH.

True to Name.

And to carry safely to any part of the country.

BRAMMAS, LIGHT AND DARK LEGHORNS, WHITE AND BROWN HOUDANS, COCHINS, BUFF, BLACK AND PARTRIDGE POLISH, GOLD AND SILVER, HAMBURG GOLD, EN. SILVER AND BLACK GAMES, AYLESBURY AND ROUEN DUCKS, DORCHINGS AND BANTAMS.

BRONZE TURKEYS, the Largest in America.

Send for Circular to

GEO. B. BAYLEY,

16p

Box 659, San Francisco.

HOP ROOTS FOR SALE.

I have a lot of choice HOP ROOTS, and also healthy BLACKBERRY SETS for sale at LOWEST RATES. Orders may be addressed through DEWEY & Co., of the Rural Press, San Francisco: ROBT. WILLIAMSON, Capital Nurseries, Sacramento; or to me,

24v8-3m

CALVERT T. BIRD, San Jose, Cal.

LOCKE & MONTAGUE,

IMPORTERS OF

Stoves, Ranges,

Tin Plate, Sheet Iron, Iron Pipe,

House Furnishing Hardware,

Plain Japanned,

Planished and Stamped

TIN WARE,

112 and 114 Battery Street,

SAN FRANCISCO.

12p

Continued from Page 253.

snaps was experienced at this place last Monday night. The day had been blustery, cold and stormy. On one or two occasions rain fell, mixed with hail and snow. At night it cleared off, and a severe frost was the result. We have not yet been enabled to ascertain the amount of damage to fruit in various parts of the county. At this place, however, complete destruction was the result. In our own small plot of ground, peaches, apricots, figs and almonds, all well formed, were completely killed. Cherries, plums, pears, nectarines and apples, in bloom, were cut by the frost. All the tender leaves and the year's growth on grapevines were also ruined. In many places the destruction to plants and flowers has been severe.

TULARE.

HAIL AND SLEET.—From the Visalia Times of April 10: Quite a refreshing shower of rain fell in this vicinity last Monday afternoon. More hail and sleet fell in the evening than has fallen before for several years. During the week the weather has been unusually cold and disagreeable for April, and there have been more severe frosts than have occurred during two months past. Dark, cool days are now preferable to sun-hine, as the moisture in the ground will not be so readily absorbed. Light showers at this season are very beneficial to grass and the young grain, as the ground is protected from the direct rays of the sun.

VEGETABLE GROWTH.—The Times has the following item: The vegetable growth in this county, in many instances, is certainly great. We noticed a bunch of alfalfa, a few days ago, that was forty inches high, with a very large root that penetrated two or three feet into the ground. It grew upon the ranch of Mr. Diss, near Junesa, from last year's sowing, without irrigation. Also eucalyptus trees can be seen upon the same ranch, that grew from the seed of last year's planting, from fifty-five to sixty-five inches high. Figs from cutting, four feet and a half high; almonds, four feet and eight inches; oranges, fifteen inches, and other plants and shrubbery in proportion.

TUOLUMNE.

GRAPES NOT INJURED.—The Independent of the 10th inst. says: On Monday we were treated to a grand storm of the beautiful snow, which came down in earnest all day. Late in the evening it began to melt away, and next day but little was left for the snow-fallers. Fears are held that the cold has injured the early fruit, as all the trees are in blossom. Grapes are not advanced enough for injury.

YOLO.

ALL SORTS OF WEATHER.—From the Mail, of April 8: We have had all sorts of weather during the past week. A little rain, a little snow, some frost, and an abundance of north wind. It has been a very peculiar season ever since the rains commenced last fall. Every rain has been preceded by a strong north wind, and as soon as the rains have ceased, the north wind has swept over the country. These fluctuations have caused many doubts and fears among farmers, yet the rains have kept the ground underneath the surface sufficiently moist until the last month. It is a rather critical time just now, however, for too much rain would injure the forward grain, which, in the absence of the northerly, would make very good crops with but very little, while the late snow will not make anything unless it has considerable rain. It frosted on Saturday night, but not severe enough to destroy the fruit, nevertheless, some of it is injured—such as apricots, almonds and peaches. The grapes are not far enough along to be injured, and the cold weather of the past month has kept other fruits back so far that these have been saved. Since Monday afternoon the feeling seems to be, that we are on the turning point, and that unless the north wind ceases, and the sun comes out warmer, there will be a very serious damage done to the wheat crop.

YUBA.

SEVERE FROST.—The Marysville Appeal, of the 8th, says: The extensive orchards in this vicinity have suffered partial and total losses of their apricots, peach, apple or pear crops, and in some cases the individual losses will amount to several thousands of dollars. The greatest loser will be John G. Briggs, who suffered severely last year by high spring water. His losses are probably not less than \$10,000. Messrs. Hutchinson, Miller Brothers, Crane, Carruthers, Chandon, McMillan, Dr. Chandler, Strain Brothers, Grass Brothers, and several others lose from \$1,000 to \$5,000 each. The grapes escaped with slight injury, because of the backwardness of the crop. The frost in some localities was so severe as to discolor the tops of alfalfa and clover, as well as locust and walnut trees. It is hoped that in all these orchards a small percentage of fruit was spared. Our fruit men estimate the loss in the State at \$2,000,000.

Coming Fairs and Exhibitions.

The Centennial International Exhibition, at Fairmount Park, Philadelphia, will open on the 19th of April, 1876, and close on the 19th of October following. International Exhibition of Chili, Santiago, will open nominally August 15, 1875, continuing until April 2, 1876. Officially from September 16, 1875, to January 1, 1876. Articles for exhibition may be entered at any time from the 16th of August to the 16th of September and can remain on exhibition if the exhibitor so desires until the 24th of April following. Tenth Industrial Exhibition of the Mechanics' Institute of San Francisco, commencing Tuesday, August 17, 1875, to continue open at least one month. American Pomological Society, Fifteenth session, at Chicago, Wednesday, September 8, 1875, continuing for three days. The Alabama State Grange Fair, at Selma, Alabama, Tuesday, October 26, 1875, continuing five days.

S. F. MARKET REPORT.

Weekly Market Review.

DOMESTIC PRODUCE.

SAN FRANCISCO, Wednesday, April 14th.

The receipts of wheat have been on the decrease during the past week. Total receipts since our last, 68,361 centals. In freights there is little doing. The ship *Spartan*, 1,499 tons, has been chartered at \$2 56 for a direct port, and this is as low as an A 1 ship can be had.

Barley—Receipts since our last, 17,874 centals. Total since April 1st, 23,018 centals. The market is firm with a tendency to advance.

Corn—Receipts since our last, 1,441 centals. Total since April 1st, 3,211 centals.

Flour—Receipts since our last, 25,892 quarter sacks, including 6,600 do from Oregon per *Ajazz*.

Potatoes—Receipts since our last, 9,236 centals. Total since April 1st, 25,084 centals. The market since our last has advanced 12 1/2 @ 50c. It is now quotable at \$2 25 @ 2.50.

Wool—Receipts since our last, 3,998 bales. Total since April 1st, 6,699 bales. A reference to the aspect of the market in Boston and New York will be found in another column of the Press.

DOMESTIC PRODUCE.

[WHOLESALE.]

WEDNESDAY M., April 14, 1875.

BEANS. Bayo, 2 1/2 @ 3 1/2; Butter, 3 1/2 @ 4 1/2; Pink, 3 1/2 @ 4 1/2; Small, 3 1/2 @ 4 1/2.

BROOM CORN. Per b., 3 @ 8.

COTTON. Cal. 1874, 12 1/2 @ 15.

DAIRY PRODUCE. BUTTER, Cal. choice, 25 @ 30; Fickin, 26 @ 28; Inferior, 14 @ 16; Eastern, 17 @ 20.

EGGS. Cal. fresh, 23 @ 32 1/2; Ducks, 23 @ 32; Eastern, 23 @ 32; Oregon, 23 @ 32.

FEED. Bran, per ton, 15 @ 18; Corn Meal, 33 @ 34; Hay, 10 @ 12; Middings, 4 @ 5; Oil cake meal, 30 @ 35; Straw, 65 @ 70.

FLOUR. Extra, 5 @ 5 1/2; Superior, 4 @ 4 1/2.

FRESH MEAT. Beef, 7 @ 8 1/2; Second, 6 @ 7; Third, 5 @ 6; Lamb, 9 @ 10; Mutton, 4 @ 4 1/2; Pork, 6 1/2 @ 7 1/2; Do, dressed, 9 1/2 @ 10 1/2; Veal, 6 @ 7.

GRAIN, ETC. Berley, coarse, 1 1/2 @ 1 5/8; Buckwheat, 1 @ 1 1/8; Corn, white, 1 1/2 @ 1 5/8; Do, yellow, 1 1/2 @ 1 5/8; Oats, choice, 1 1/2 @ 1 5/8; Eye, 1 1/2 @ 1 5/8; Wheat, coarse, 1 1/2 @ 1 5/8; Do shipping, 1 1/2 @ 1 5/8; Do milling, 1 1/2 @ 1 5/8.

HOPS. California, 1874, 30 @ 32 1/2; Eastern, 30 @ 32 1/2.

MISCELLANEOUS. Scales, 25 @ 27 1/2; Honey in comb, 18 @ 22 1/2; Do strained, 5 @ 10; Onions, 75 @ 80; Potatoes, 10 @ 12 1/2; Pulled, 8 1/2 @ 10 1/2.

NUTS-JOBING. Almond, 20 @ 22 1/2; Brazil, 20 @ 22 1/2; Cashew, 18 @ 20 1/2; C. Walnuts, 18 @ 20 1/2; O. Peanuts, 18 @ 20 1/2; Chile Walnuts, 9 @ 10; Cocomuts, 100 @ 100 00; Filberts, 17 @ 18; Pecanuts, 17 @ 18.

POTATOES. Bodega, 22 @ 25; Uffice Cove, 22 @ 25; H. M. Bay, 22 @ 25; Humboldt, 22 @ 25; Mission, 22 @ 25; Pigeon Pt., 22 @ 25.

FRUIT MARKET. Tahiti, Or. M27 1/2 @ 30; Loretta, 20 @ 20 00; Cel. do, 20 @ 20 00; Limes, 12 @ 15 00; Cal. Lemons, M15 @ 30 00; Australia, do, 10 @ 10 00; Do Sicily, 10 @ 10 00; Do Bahia, 10 @ 10 00; Do Ocoana, 10 @ 10 00; Pineapples, 25 @ 30; Apples, box, 1 1/2 @ 3 00; Cherries, 1 @ 1; Blackberries, 1 @ 1; Do wild, 1 @ 1; Strawberry, 25 @ 30; Gooseberries, 1 @ 1; Raspberries, 1 @ 1; Currants, 1 @ 1; Apricots, 1 @ 1; Plums, 1 @ 1; Peaches, 1 @ 1; Do box, 1 @ 1; Do ext. Mount, 1 @ 1; Pears, Bart's, 1 @ 1; Do Cooking, 1 @ 1; Orab Apples, 1 @ 1; Nectarines, 1 @ 1; Walnut, 1 @ 1; Musk, 1 @ 1; Pomegranate, 1 @ 1; Figs, 1 @ 1; Grapes, Black, 1 @ 1; Do Muscat, 1 @ 1; Do Malaga, 1 @ 1; Do Sweet, 1 @ 1; Do Mission, 1 @ 1; Do Rose of Peru, 1 @ 1; Do Tokay, 1 @ 1; Do Morocco, 1 @ 1.

WOOL, ETC. Spring, 1 @ 1; Good to choice, 1 @ 1; Long Shipping, 1 @ 1; Heavy free, 1 @ 1; Hides, dry, 1 @ 1; Do wet salted, 1 @ 1; Tallow, 1 @ 1; Do refined, 1 @ 1.

FRUITS AND VEGETABLES. [WHOLESALE.]

WEDNESDAY M., April 14, 1875.

FRUIT MARKET. do St. Peter, 1 @ 1; Apples, 1 @ 1; Peaches, 1 @ 1; Apricots, 1 @ 1; Plums, 1 @ 1; Pitted, 1 @ 1; Do extra, 1 @ 1; Raisins, 1 @ 1; Black Figs, 1 @ 1; White, 1 @ 1; Prunes, 1 @ 1; Do German, 1 @ 1; Cucumbers, 1 @ 1; Zante Onions, 1 @ 1; Dates, 1 @ 1; Asparagus, 1 @ 1; Cabbages, 1 @ 1; Carrots, 1 @ 1; Cauliflower, 1 @ 1; Celery, 1 @ 1; Garlic, 1 @ 1; Green Peas, 1 @ 1; Green Corn, 1 @ 1; Snn's Squash, 1 @ 1; Merro'ta Squash, 1 @ 1; Artichokes, 1 @ 1; String Beans, 1 @ 1; Parsnips, 1 @ 1; Shell Beans, 1 @ 1; Peppers, green, 1 @ 1; Okra, 1 @ 1; Cucumbers, 1 @ 1; Tomatoes, 1 @ 1; Egg Plant, 1 @ 1; Rhubarb, 1 @ 1; Lettuce, 1 @ 1; Turnips, 1 @ 1.

VEGETABLES. do St. Peter, 1 @ 1; Apples, 1 @ 1; Peaches, 1 @ 1; Apricots, 1 @ 1; Plums, 1 @ 1; Pitted, 1 @ 1; Do extra, 1 @ 1; Raisins, 1 @ 1; Black Figs, 1 @ 1; White, 1 @ 1; Prunes, 1 @ 1; Do German, 1 @ 1; Cucumbers, 1 @ 1; Zante Onions, 1 @ 1; Dates, 1 @ 1; Asparagus, 1 @ 1; Cabbages, 1 @ 1; Carrots, 1 @ 1; Cauliflower, 1 @ 1; Celery, 1 @ 1; Garlic, 1 @ 1; Green Peas, 1 @ 1; Green Corn, 1 @ 1; Snn's Squash, 1 @ 1; Merro'ta Squash, 1 @ 1; Artichokes, 1 @ 1; String Beans, 1 @ 1; Parsnips, 1 @ 1; Shell Beans, 1 @ 1; Peppers, green, 1 @ 1; Okra, 1 @ 1; Cucumbers, 1 @ 1; Tomatoes, 1 @ 1; Egg Plant, 1 @ 1; Rhubarb, 1 @ 1; Lettuce, 1 @ 1; Turnips, 1 @ 1.

VEGETABLES. do St. Peter, 1 @ 1; Apples, 1 @ 1; Peaches, 1 @ 1; Apricots, 1 @ 1; Plums, 1 @ 1; Pitted, 1 @ 1; Do extra, 1 @ 1; Raisins, 1 @ 1; Black Figs, 1 @ 1; White, 1 @ 1; Prunes, 1 @ 1; Do German, 1 @ 1; Cucumbers, 1 @ 1; Zante Onions, 1 @ 1; Dates, 1 @ 1; Asparagus, 1 @ 1; Cabbages, 1 @ 1; Carrots, 1 @ 1; Cauliflower, 1 @ 1; Celery, 1 @ 1; Garlic, 1 @ 1; Green Peas, 1 @ 1; Green Corn, 1 @ 1; Snn's Squash, 1 @ 1; Merro'ta Squash, 1 @ 1; Artichokes, 1 @ 1; String Beans, 1 @ 1; Parsnips, 1 @ 1; Shell Beans, 1 @ 1; Peppers, green, 1 @ 1; Okra, 1 @ 1; Cucumbers, 1 @ 1; Tomatoes, 1 @ 1; Egg Plant, 1 @ 1; Rhubarb, 1 @ 1; Lettuce, 1 @ 1; Turnips, 1 @ 1.

VEGETABLES. do St. Peter, 1 @ 1; Apples, 1 @ 1; Peaches, 1 @ 1; Apricots, 1 @ 1; Plums, 1 @ 1; Pitted, 1 @ 1; Do extra, 1 @ 1; Raisins, 1 @ 1; Black Figs, 1 @ 1; White, 1 @ 1; Prunes, 1 @ 1; Do German, 1 @ 1; Cucumbers, 1 @ 1; Zante Onions, 1 @ 1; Dates, 1 @ 1; Asparagus, 1 @ 1; Cabbages, 1 @ 1; Carrots, 1 @ 1; Cauliflower, 1 @ 1; Celery, 1 @ 1; Garlic, 1 @ 1; Green Peas, 1 @ 1; Green Corn, 1 @ 1; Snn's Squash, 1 @ 1; Merro'ta Squash, 1 @ 1; Artichokes, 1 @ 1; String Beans, 1 @ 1; Parsnips, 1 @ 1; Shell Beans, 1 @ 1; Peppers, green, 1 @ 1; Okra, 1 @ 1; Cucumbers, 1 @ 1; Tomatoes, 1 @ 1; Egg Plant, 1 @ 1; Rhubarb, 1 @ 1; Lettuce, 1 @ 1; Turnips, 1 @ 1.

VEGETABLES. do St. Peter, 1 @ 1; Apples, 1 @ 1; Peaches, 1 @ 1; Apricots, 1 @ 1; Plums, 1 @ 1; Pitted, 1 @ 1; Do extra, 1 @ 1; Raisins, 1 @ 1; Black Figs, 1 @ 1; White, 1 @ 1; Prunes, 1 @ 1; Do German, 1 @ 1; Cucumbers, 1 @ 1; Zante Onions, 1 @ 1; Dates, 1 @ 1; Asparagus, 1 @ 1; Cabbages, 1 @ 1; Carrots, 1 @ 1; Cauliflower, 1 @ 1; Celery, 1 @ 1; Garlic, 1 @ 1; Green Peas, 1 @ 1; Green Corn, 1 @ 1; Snn's Squash, 1 @ 1; Merro'ta Squash, 1 @ 1; Artichokes, 1 @ 1; String Beans, 1 @ 1; Parsnips, 1 @ 1; Shell Beans, 1 @ 1; Peppers, green, 1 @ 1; Okra, 1 @ 1; Cucumbers, 1 @ 1; Tomatoes, 1 @ 1; Egg Plant, 1 @ 1; Rhubarb, 1 @ 1; Lettuce, 1 @ 1; Turnips, 1 @ 1.

VEGETABLES. do St. Peter, 1 @ 1; Apples, 1 @ 1; Peaches, 1 @ 1; Apricots, 1 @ 1; Plums, 1 @ 1; Pitted, 1 @ 1; Do extra, 1 @ 1; Raisins, 1 @ 1; Black Figs, 1 @ 1; White, 1 @ 1; Prunes, 1 @ 1; Do German, 1 @ 1; Cucumbers, 1 @ 1; Zante Onions, 1 @ 1; Dates, 1 @ 1; Asparagus, 1 @ 1; Cabbages, 1 @ 1; Carrots, 1 @ 1; Cauliflower, 1 @ 1; Celery, 1 @ 1; Garlic, 1 @ 1; Green Peas, 1 @ 1; Green Corn, 1 @ 1; Snn's Squash, 1 @ 1; Merro'ta Squash, 1 @ 1; Artichokes, 1 @ 1; String Beans, 1 @ 1; Parsnips, 1 @ 1; Shell Beans, 1 @ 1; Peppers, green, 1 @ 1; Okra, 1 @ 1; Cucumbers, 1 @ 1; Tomatoes, 1 @ 1; Egg Plant, 1 @ 1; Rhubarb, 1 @ 1; Lettuce, 1 @ 1; Turnips, 1 @ 1.

VEGETABLES. do St. Peter, 1 @ 1; Apples, 1 @ 1; Peaches, 1 @ 1; Apricots, 1 @ 1; Plums, 1 @ 1; Pitted, 1 @ 1; Do extra, 1 @ 1; Raisins, 1 @ 1; Black Figs, 1 @ 1; White, 1 @ 1; Prunes, 1 @ 1; Do German, 1 @ 1; Cucumbers, 1 @ 1; Zante Onions, 1 @ 1; Dates, 1 @ 1; Asparagus, 1 @ 1; Cabbages, 1 @ 1; Carrots, 1 @ 1; Cauliflower, 1 @ 1; Celery, 1 @ 1; Garlic, 1 @ 1; Green Peas, 1 @ 1; Green Corn, 1 @ 1; Snn's Squash, 1 @ 1; Merro'ta Squash, 1 @ 1; Artichokes, 1 @ 1; String Beans, 1 @ 1; Parsnips, 1 @ 1; Shell Beans, 1 @ 1; Peppers, green, 1 @ 1; Okra, 1 @ 1; Cucumbers, 1 @ 1; Tomatoes, 1 @ 1; Egg Plant, 1 @ 1; Rhubarb, 1 @ 1; Lettuce, 1 @ 1; Turnips, 1 @ 1.

VEGETABLES. do St. Peter, 1 @ 1; Apples, 1 @ 1; Peaches, 1 @ 1; Apricots, 1 @ 1; Plums, 1 @ 1; Pitted, 1 @ 1; Do extra, 1 @ 1; Raisins, 1 @ 1; Black Figs, 1 @ 1; White, 1 @ 1; Prunes, 1 @ 1; Do German, 1 @ 1; Cucumbers, 1 @ 1; Zante Onions, 1 @ 1; Dates, 1 @ 1; Asparagus, 1 @ 1; Cabbages, 1 @ 1; Carrots, 1 @ 1; Cauliflower, 1 @ 1; Celery, 1 @ 1; Garlic, 1 @ 1; Green Peas, 1 @ 1; Green Corn, 1 @ 1; Snn's Squash, 1 @ 1; Merro'ta Squash, 1 @ 1; Artichokes, 1 @ 1; String Beans, 1 @ 1; Parsnips, 1 @ 1; Shell Beans, 1 @ 1; Peppers, green, 1 @ 1; Okra, 1 @ 1; Cucumbers, 1 @ 1; Tomatoes, 1 @ 1; Egg Plant, 1 @ 1; Rhubarb, 1 @ 1; Lettuce, 1 @ 1; Turnips, 1 @ 1.

VEGETABLES. do St. Peter, 1 @ 1; Apples, 1 @ 1; Peaches, 1 @ 1; Apricots, 1 @ 1; Plums, 1 @ 1; Pitted, 1 @ 1; Do extra, 1 @ 1; Raisins, 1 @ 1; Black Figs, 1 @ 1; White, 1 @ 1; Prunes, 1 @ 1; Do German, 1 @ 1; Cucumbers, 1 @ 1; Zante Onions, 1 @ 1; Dates, 1 @ 1; Asparagus, 1 @ 1; Cabbages, 1 @ 1; Carrots, 1 @ 1; Cauliflower, 1 @ 1; Celery, 1 @ 1; Garlic, 1 @ 1; Green Peas, 1 @ 1; Green Corn, 1 @ 1; Snn's Squash, 1 @ 1; Merro'ta Squash, 1 @ 1; Artichokes, 1 @ 1; String Beans, 1 @ 1; Parsnips, 1 @ 1; Shell Beans, 1 @ 1; Peppers, green, 1 @ 1; Okra, 1 @ 1; Cucumbers, 1 @ 1; Tomatoes, 1 @ 1; Egg Plant, 1 @ 1; Rhubarb, 1 @ 1; Lettuce, 1 @ 1; Turnips, 1 @ 1.

VEGETABLES. do St. Peter, 1 @ 1; Apples, 1 @ 1; Peaches, 1 @ 1; Apricots, 1 @ 1; Plums, 1 @ 1; Pitted, 1 @ 1; Do extra, 1 @ 1; Raisins, 1 @ 1; Black Figs, 1 @ 1; White, 1 @ 1; Prunes, 1 @ 1; Do German, 1 @ 1; Cucumbers, 1 @ 1; Zante Onions, 1 @ 1; Dates, 1 @ 1; Asparagus, 1 @ 1; Cabbages, 1 @ 1; Carrots, 1 @ 1; Cauliflower, 1 @ 1; Celery, 1 @ 1; Garlic, 1 @ 1; Green Peas, 1 @ 1; Green Corn, 1 @ 1; Snn's Squash, 1 @ 1; Merro'ta Squash, 1 @ 1; Artichokes, 1 @ 1; String Beans, 1 @ 1; Parsnips, 1 @ 1; Shell Beans, 1 @ 1; Peppers, green, 1 @ 1; Okra, 1 @ 1; Cucumbers, 1 @ 1; Tomatoes, 1 @ 1; Egg Plant, 1 @ 1; Rhubarb, 1 @ 1; Lettuce, 1 @ 1; Turnips, 1 @ 1.

VEGETABLES. do St. Peter, 1 @ 1; Apples, 1 @ 1; Peaches, 1 @ 1; Apricots, 1 @ 1; Plums, 1 @ 1; Pitted, 1 @ 1; Do extra, 1 @ 1; Raisins, 1 @ 1; Black Figs, 1 @ 1; White, 1 @ 1; Prunes, 1 @ 1; Do German, 1 @ 1; Cucumbers, 1 @ 1; Zante Onions, 1 @ 1; Dates, 1 @ 1; Asparagus, 1 @ 1; Cabbages, 1 @ 1; Carrots, 1 @ 1; Cauliflower, 1 @ 1; Celery, 1 @ 1; Garlic, 1 @ 1; Green Peas, 1 @ 1; Green Corn, 1 @ 1; Snn's Squash, 1 @ 1; Merro'ta Squash, 1 @ 1; Artichokes, 1 @ 1; String Beans, 1 @ 1; Parsnips, 1 @ 1; Shell Beans, 1 @ 1; Peppers, green, 1 @ 1; Okra, 1 @ 1; Cucumbers, 1 @ 1; Tomatoes, 1 @ 1; Egg Plant, 1 @ 1; Rhubarb, 1 @ 1; Lettuce, 1 @ 1; Turnips, 1 @ 1.

VEGETABLES. do St. Peter, 1 @ 1; Apples, 1 @ 1; Peaches, 1 @ 1; Apricots, 1 @ 1; Plums, 1 @ 1; Pitted, 1 @ 1; Do extra, 1 @ 1; Raisins, 1 @ 1; Black Figs, 1 @ 1; White, 1 @ 1; Prunes, 1 @ 1; Do German, 1 @ 1; Cucumbers, 1 @ 1; Zante Onions, 1 @ 1; Dates, 1 @ 1; Asparagus, 1 @ 1; Cabbages, 1 @ 1; Carrots, 1 @ 1; Cauliflower, 1 @ 1; Celery, 1 @ 1; Garlic, 1 @ 1; Green Peas, 1 @ 1; Green Corn, 1 @ 1; Snn's Squash, 1 @ 1; Merro'ta Squash, 1 @ 1; Artichokes, 1 @ 1; String Beans, 1 @ 1; Parsnips, 1 @ 1; Shell Beans, 1 @ 1; Peppers, green, 1 @ 1; Okra, 1 @ 1; Cucumbers, 1 @ 1; Tomatoes, 1 @ 1; Egg Plant, 1 @ 1; Rhubarb, 1 @ 1; Lettuce, 1 @ 1; Turnips, 1 @ 1.

VEGETABLES. do St. Peter, 1 @ 1; Apples, 1 @ 1; Peaches, 1 @ 1; Apricots, 1 @ 1; Plums, 1 @ 1; Pitted, 1 @ 1; Do extra, 1 @ 1; Raisins, 1 @ 1; Black Figs, 1 @ 1; White, 1 @ 1; Prunes, 1 @ 1; Do German, 1 @ 1; Cucumbers, 1 @ 1; Zante Onions, 1 @ 1; Dates, 1 @ 1; Asparagus, 1 @ 1; Cabbages, 1 @ 1; Carrots, 1 @ 1; Cauliflower, 1 @ 1; Celery, 1 @ 1; Garlic, 1 @ 1; Green Peas, 1 @ 1; Green Corn, 1 @ 1; Snn's Squash, 1 @ 1; Merro'ta Squash, 1 @ 1; Artichokes, 1 @ 1; String Beans, 1 @ 1; Parsnips, 1 @ 1; Shell Beans, 1 @ 1; Peppers, green, 1 @ 1; Okra, 1 @ 1; Cucumbers, 1 @ 1; Tomatoes, 1 @ 1; Egg Plant, 1 @ 1; Rhubarb, 1 @ 1; Lettuce, 1 @ 1; Turnips, 1 @ 1.

VEGETABLES. do St. Peter, 1 @ 1; Apples, 1 @ 1; Peaches, 1 @ 1; Apricots, 1 @ 1; Plums, 1 @ 1; Pitted, 1 @ 1; Do extra, 1 @ 1; Raisins, 1 @ 1; Black Figs, 1 @ 1; White, 1 @ 1; Prunes, 1 @ 1; Do German, 1 @ 1; Cucumbers, 1 @ 1; Zante Onions, 1 @ 1; Dates, 1 @ 1; Asparagus, 1 @ 1; Cabbages, 1 @ 1; Carrots, 1 @ 1; Cauliflower, 1 @ 1; Celery, 1 @ 1; Garlic, 1 @ 1; Green Peas, 1 @ 1; Green Corn, 1 @ 1; Snn's Squash, 1 @ 1; Merro'ta Squash, 1 @ 1; Artichokes, 1 @ 1; String Beans, 1 @ 1; Parsnips, 1 @ 1; Shell Beans, 1 @ 1; Peppers, green, 1 @ 1; Okra, 1 @ 1; Cucumbers, 1 @ 1; Tomatoes, 1 @ 1; Egg Plant, 1 @ 1; Rhubarb, 1 @ 1; Lettuce, 1 @ 1; Turnips, 1 @ 1.

VEGETABLES. do St. Peter, 1 @ 1; Apples, 1 @ 1; Peaches, 1 @ 1; Apricots, 1 @ 1; Plums, 1 @ 1; Pitted, 1 @ 1; Do extra, 1 @ 1; Raisins, 1 @ 1; Black Figs, 1 @ 1; White, 1 @ 1; Prunes, 1 @ 1; Do German, 1 @ 1; Cucumbers, 1 @ 1; Zante Onions, 1 @ 1; Dates, 1 @ 1; Asparagus, 1 @ 1; Cabbages, 1 @ 1; Carrots, 1 @ 1; Cauliflower, 1 @ 1; Celery, 1 @ 1; Garlic, 1 @ 1; Green Peas, 1 @ 1; Green Corn, 1 @ 1; Snn's Squash, 1 @ 1; Merro'ta Squash, 1 @ 1; Artichokes, 1 @ 1; String Beans, 1 @ 1; Parsnips, 1 @ 1; Shell Beans, 1 @ 1; Peppers, green, 1 @ 1; Okra, 1 @ 1; Cucumbers, 1 @ 1; Tomatoes, 1 @ 1; Egg Plant, 1 @ 1; Rhubarb, 1 @ 1; Lettuce, 1 @ 1; Turnips, 1 @ 1.

VEGETABLES. do St. Peter, 1 @ 1; Apples, 1 @ 1; Peaches, 1 @ 1; Apricots, 1 @ 1; Plums, 1 @ 1; Pitted, 1 @ 1; Do extra, 1 @ 1; Raisins, 1 @ 1; Black Figs, 1 @ 1; White, 1 @ 1; Prunes, 1 @ 1; Do German, 1 @ 1; Cucumbers, 1 @ 1; Zante Onions, 1 @ 1; Dates, 1 @ 1; Asparagus, 1 @ 1; Cabbages, 1 @ 1; Carrots, 1 @ 1; Cauliflower, 1 @ 1; Celery, 1 @ 1; Garlic, 1 @ 1; Green Peas, 1 @ 1; Green Corn, 1 @ 1; Snn's Squash, 1 @ 1; Merro'ta Squash, 1 @ 1; Artichokes, 1 @ 1; String Beans, 1 @ 1; Parsnips, 1 @ 1; Shell Beans, 1 @ 1; Peppers, green, 1 @ 1; Okra, 1 @ 1; Cucumbers, 1 @ 1; Tomatoes, 1 @ 1; Egg Plant, 1 @ 1; Rhubarb, 1 @ 1; Lettuce, 1 @ 1; Turnips, 1 @ 1.

VEGETABLES. do St. Peter, 1 @ 1; Apples, 1 @ 1; Peaches, 1 @ 1; Apricots, 1 @ 1; Plums, 1 @ 1; Pitted, 1 @ 1; Do extra, 1 @ 1; Raisins, 1 @ 1; Black Figs, 1 @ 1; White, 1 @ 1; Prunes, 1 @ 1; Do German, 1 @ 1; Cucumbers, 1 @ 1; Zante Onions, 1 @ 1; Dates, 1 @ 1; Asparagus, 1 @ 1; Cabbages, 1 @ 1; Carrots, 1 @ 1; Cauliflower, 1 @ 1; Celery, 1 @ 1; Garlic, 1 @ 1; Green Peas, 1 @ 1; Green Corn, 1 @ 1; Snn's Squash, 1 @ 1; Merro'ta Squash, 1 @ 1; Artichokes, 1 @ 1; String Beans, 1 @ 1; Parsnips, 1 @ 1; Shell Beans, 1 @ 1; Peppers, green, 1 @ 1; Okra, 1 @ 1; Cucumbers, 1 @ 1; Tomatoes, 1 @ 1; Egg Plant, 1 @ 1; Rhubarb, 1 @ 1; Lettuce, 1 @ 1; Turnips, 1 @ 1.

VEGETABLES. do St. Peter, 1 @ 1; Apples, 1 @ 1; Peaches, 1 @ 1; Apricots, 1 @ 1; Plums, 1 @ 1; Pitted, 1 @ 1; Do extra, 1 @ 1; Raisins, 1 @ 1; Black Figs, 1 @ 1; White, 1 @ 1; Prunes, 1 @ 1; Do German, 1 @ 1; Cucumbers, 1 @ 1; Zante Onions, 1 @ 1; Dates, 1 @ 1; Asparagus, 1 @ 1; Cabbages, 1 @ 1; Carrots, 1 @ 1; Cauliflower, 1 @ 1; Celery, 1 @ 1; Garlic, 1 @ 1; Green Peas, 1 @ 1; Green Corn, 1 @ 1; Snn's Squash, 1 @ 1; Merro'ta Squash, 1 @ 1; Artichokes, 1 @ 1; String Beans, 1 @ 1; Parsnips, 1 @ 1; Shell Beans, 1 @ 1; Peppers, green, 1 @ 1; Okra, 1 @ 1; Cucumbers, 1 @ 1; Tomatoes, 1 @ 1; Egg Plant, 1 @ 1; Rhubarb, 1 @ 1; Lettuce, 1 @ 1; Turnips, 1 @ 1.

VEGETABLES. do St. Peter, 1 @ 1; Apples, 1 @ 1; Peaches, 1 @ 1; Apricots, 1 @ 1; Plums, 1 @ 1; Pitted, 1 @ 1; Do extra, 1 @ 1; Raisins, 1 @ 1; Black Figs, 1 @ 1; White, 1 @ 1; Prunes, 1 @ 1; Do German, 1 @ 1; Cucumbers, 1 @ 1; Zante Onions, 1 @ 1; Dates, 1 @ 1; Asparagus, 1 @ 1; Cabbages, 1 @ 1; Carrots, 1 @ 1; Cauliflower, 1 @ 1; Celery, 1 @ 1; Garlic, 1 @ 1; Green Peas, 1 @ 1; Green Corn, 1 @ 1; Snn's Squash, 1 @ 1; Merro'ta Squash, 1 @ 1; Artichokes, 1 @ 1; String Beans, 1 @ 1; Parsnips, 1 @ 1; Shell Beans, 1 @ 1; Peppers, green, 1 @ 1; Okra, 1 @ 1; Cucumbers, 1 @ 1; Tom

Nurserymen.

1875. Established 1857. 1875.

Capital Nursery and Seed House

W. R. STRONG and ROBERT WILLIAMSON, Proprietors, having united their interests in the Seed and Tree business, offer to the public the largest and finest growth of both Seeds and Trees ever offered to the California public, of their own production, and also from the largest and most reliable houses of the Eastern States and Europe, all of which we offer as low as Eastern Dealers.

TREES. TREES. TREES.

Fruit, Shade, Ornamental, Evergreen, etc., raised in our Nurseries of the very best varieties. Dealers and Growers furnished at very lowest rates. Among our numerous varieties we call especial attention to BRIGGS' RED MAY PEACH, the earliest known, large, handsome of excellent flavor and good shipper.

SEEDS. SEEDS. SEEDS.

Vegetable, Flower, Field and Tree Seeds, and Flowering Bulbs and Plants.

100,000 pounds Finest Quality California ALFALFA, RED and WHITE CLOVER, KENTUCKY BLUE GRASS, RYE GRASS, ORCHARD GRASS, VERNAL GRASS, MESQUITE GRASS, TIMOTHY, RED-TOP GRASS, and every other Grass adapted to the Pacific States and Territories.

All the finer qualities of our Seeds will be forwarded by mail (post-paid) to customers at Catalogue rates, on receipt of money, which can be sent by postal orders or registered letters, or express, at our risk.

CATALOGUES AND PRICE LISTS on application, and forwarded by mail.

WAREHOUSE, 8 and 11 J street. NURSERIES, U street, SACRAMENTO CITY. TREE YARD, I street, next to Library Building.

W. R. STRONG & CO.

Fruit, Shade and Ornamental

EVERGREEN TREES

-AND-

Plants for Sale.

At the old stand, corner Oregon and Battery streets, directly opposite Post Office, San Francisco.

I NOW OFFER FOR SALE

The Largest and Best Collection of Fruit, Shade and Evergreen Trees and Plants ever offered in this market, and at Reduced Prices.

Persons laying out new grounds would do well to call and examine our stock before purchasing elsewhere.

ORDERS FROM THE COUNTRY

Promptly attended to and packed with great care. A large stock of Cypress, Pines and Blue Gums for sale very low. Send for Price Catalogue.

Agent for B. S. Fox's Nurseries, San Jose. Address

THOMAS MEHERIN,

P. O. Box, 722, 516 Battery St., S. F.

1852. 1875

ESTABLISHED IN 1852.

THE STOCKTON NURSERY

I have for sale for the ensuing season a Large and Well Grown Stock of All Varieties of

FRUIT TREES,

SHADE,

ORNAMENTAL

and

EVERGREEN TREES.

GREENHOUSE PLANTS, AUSTRALIAN GUMS, SHRUBS, ROSES, BULBS, PALMS.

Send for Catalogue.

W. B. WEST, Stockton, Cal.

F. LUDEMANN. RUD. MEYERSEN.

PACIFIC NURSERY,

Baker St., Between Lombard and Chestnut

San Francisco, Cal.

P. O. Box 475.

We offer this Season a Large and Complete Selection of Well Grown

EVERGREEN AND DECIDUOUS TREES AND SHRUBS, FLOWERING AND ORNAMENTAL PLANTS

At very reasonable Prices. Our Descriptive Catalogue of Evergreens and Deciduous Trees and Shrubs, and our Wholesale Trade List (For Dealers and Nurserymen) will be sent on application. All Orders promptly filled.

F. LUDEMANN & CO.

BELLEVUE NURSERY,

Telegraph Avenue, Oakland.

WE OFFER FOR SALE THE PRESENT SEASON A LARGE ASSORTMENT OF

Ornamental Trees and Shrubs

OF BEST TRIED VARIETIES.

Many fine specimens of good size can be seen on the grounds to select from. Choice collections (true to name) put up for those starting a garden. Street cars pass every fifteen minutes.

8v9-1f

S. NOLAN.

BLOOMINGTON NURSERY, Bloomington, Ill.—F. R. KENNEDY. Spring lists free, or the set of four Catalogues post free for twenty cents.

Established 1853.

Stocks for Nurserymen.

Plum Seedlings, Mirobolan, the best French stock, does not sucker..... \$50 per 1000
Apple Seedlings..... 10 per 1000
Pear Seedlings..... 10 per 1000
Cherry Seedlings, Mazzard..... 12 per 1000
Cherry Seedlings, Mahaleb..... 20 per 1000
Walnuts, English, 4 to 6 feet..... 15 per 100
Cork Elm, best Elm, 4 to 6 feet..... 15 per 100
Blue Gum or Encalyptus, in variety..... 5 to 10 per 100
Magnolia Grandiflora.....
Magnolia Acuminata.....
Magnolia Tripetala.....
Golden Arborvitae.....
Oratagus Arborescens.....
Swedish Juniper.....
Irish Juniper.....
Heath-leaved Arborvitae.....

LARGE STOCK

Heath, Mediterranean..... \$2.50 per doz.
Laurustinus, 6 to 12 in..... 2.50 per doz.
Making the growth of Oranges and Lemons a specialty. I have imported from all sources the best known varieties, and now offer five thousand Grafted Trees properly worked and twice transplanted at \$18 per dozen. Grafted oranges by the 100 or 1,000 at prices on application. The amateur in want of large PALMS, large AURICARIAS, large CAMELIAS and large TREE FERNS, a good stock on hand; also the usual large stock of fruit and ornamental trees.

BERNARD S. FOX,

San Jose, Cal.

THOS. MEHERIN, Agent, 516 Battery Street, San Francisco. 2v8-3

SUPERIOR FRUIT TREES

TRUE TO NAME.

A fine collection of Evergreen and Deciduous Trees. Australian Gum Trees in variety, by the hundred or thousand. Monterey Cypress in quantities and sizes to suit all. Orange and Lemon Trees at reduced prices. A general variety of Nursery stock.

Also, Rhubarb and Asparagus roots.

T. CORLEY,

18v29-1f 315 Washington Street, S. F.

KING'S NURSERY,

Twenty-fifth St., bet. Telegraph & Broadway OAKLAND, CAL.

Fruit, Shade and Evergreen Trees, Shrubs, Roses, Etc. Persons laying out new grounds would do well to call and examine our stock before purchasing elsewhere. A large stock of EUALYPTUS, including BLUE GUM Pines and CYPRESS from six inches to twelve feet high. Acacias in variety; Young Stock for Nurserymen; Pines and Cypress; Three Thousand Magnolia Grandiflora from six inches to five feet high; Camelia Japonica; Gardenia Cape Jessamine; Araucarias in variety, at Lowest Rates. Orders attended to. Address, M. KING, Nurseryman, Oakland, Cal. 3v9-3m

Thos. A. Garey's

Semi-Tropical Nurseries.

LOS ANGELES, CAL.

Forty varieties of the Citrus family of semi-tropical trees, including many rare and beautiful, as well as useful and profitable kinds.

Grafted and Budded Orange Trees a specialty. Trees packed to arrive in good order. Priced Catalogue sent free. Address me P. O. Box, 528, Los Angeles city, Cal. 23v8-6m

THOS. A. GAREY.

PEPPER'S NURSERIES.

(Established in 1858.) PETALUMA, OAL. Green Houses and Tree Depot corner Washington and Liberty streets.

4 Green Houses. 3,000 feet of Glass. Fruit Trees a Specialty.

We offer for sale at lowest market rates a general assortment of Fruit and Shade trees, small Fruits, Vines etc. Evergreen trees and Shrubs in great variety. Green House, Green arbor and Bedding Plants, Roses, etc. We are now ready, Nov. 1st, to fill orders for trees and plants. Catalogue and price list furnished on application.

Address, W. H. & G. B. PEPPER, 19v8-1f Petaluma, Sonoma Co., Cal.

PEACHES, APRICOTS AND PLUMS

are specialties at the Vacaville Nursery, Solano Co., Cal. Alexander's Early, Thurb-r and Peento in bud, 50 cents each; Beatrice, Louise, Rivers' Early, Lord Palmerston, Lady Palmerston, Prince of Wales, Princess of Wales, Piquette, Little Lady, Italian Dwarf, Golden Dwarf, Blood-red and many other varieties of new Peaches in bud, at 25 cents each; Trees of Alexander's Early, \$1 each; Beatrice, Plowden, Freemason and a general assortment of the leading varieties, 25 cents each; Apricots, Plums, Apples, Pears, Cherries, Almonds, Figs, Olives, Pomegranates and including most of the leading varieties of fruit for sale at low prices. D. E. Hough, Vacaville, Solano Co., Cal.

FOR SALE.

10,000 Acres Grazing Land—San Luis Obispo County. Title, U. S. Patent. Apply to MOODY & FARISH, 210 Davis street.

FARM HANDS.

The Grangers' Scandinavian American Employment Office

Has been removed from 6 Liedersdorf to 608 Clay street, and Consolidated with the Pacific Coast Employment Office. This office is in constant communication with Grange Headquarters, and is the only one in the city conducted by members of the Order. Our facilities for furnishing MALE and FEMALE help of all kinds are unequalled by any office in the city. Great care taken to select reliable help. Chinese Orders for Servants, in door and out, promptly filled.

In ordering help, be particular in describing work, wages, fare, etc., Real Estate and General Business Agency.

PHILIPS & FLIGGLE.

THE Employment Office of Talbot & Co. has no connection whatever with the Granges. I. G. GARDNER.

Agricultural Articles.

VINE AND FRUIT GROWERS,

TO RAISE LARGE CROPS

YOU MUST IRRIGATE.

To irrigate successfully, you must have the power that does not give out when the wind fails.

Lanfrotter Bros. & Churchman's Horse-Power,



(PATENTED FEBRUARY 13th, 1871.) Never fails to supply more water than four or five Windmills, even supposing you had all the wind you want. It is also suitable for running light machinery, such as Barley Cracks, Corn Shellers, Fan Mill, Grain Separators, or for Sawing Wood. They are never failing, cannot get out of order, easily worked, substantial, and always give satisfaction wherever they have been used. One horse can easily work two-inch pumps, with a continuous flow of water. Force Pumps, from 3,000 to 10,000 gallons per hour. WINDMILLS of all kinds manufactured to order. Well Bored, Windmills and Horse-Powers set in any part of the State, and repairing of all kinds done. Manufactured and for sale by

LAUFKOTTER BROS.,

v7-2m-3m Cor. J and 10th St., Sacramento.

KIMBALL CAR, CARRIAGE

-AND-

AGRICULTURAL IMPLEMENT

MANUFACTURING CO.,

Cor. Bryant and Fourth Sts., San Francisco

The CALIFORNIA TUBULAR IRON AND WOOD FRAME HARROW—two, four and six-horse Iron Harrows, \$60, \$70 and \$75. Wood Frame Harrow, \$10 less on each size than the Iron.

The Harrow has an easy seat for the Driver. The middle section rests on three wheels with wings hinged on each side.

By use of Levers the Driver in his seat can raise or lower the Harrow, regulating at will the depth of the teeth in the soil, and in the same manner fold or raise the wings from the ground so as to drive from the road to the field, saving the use of a wagon.

Our CALIFORNIA SCRAPER is also made for the ease of the Driver, enabling one person to ride, manage the team and do the work.

Is adapted for leveling and preparing the surface of the soil for irrigation. And for making roads, removing dirt from ditches, cleaning barn yards, sheep corals, etc.

The IMPROVED EAGLE HAY PRESS—Best in use on this Coast. Cheap, Economical, Powerful, and easily repaired.

Will press bales weighing from 250 to 325 pounds, using less rope than any other press.

Three men with a good team of horses will bale from 10 to 15 tons per day.

Adapted for baling wool, hides, cotton, rags or moss. Price, \$250. Weight of press, 2,500 pounds. Please send for circulars.

MATTESON & WILLIAMSON'S



Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m MATTESON & WILLIAMSON, Stockton, Cal.

O. CREGO. A. O. BOWLEY.

CREGO & BOWLEY,

Importers and Manufacturers

-OF-

CARRIAGES and WAGONS,

No. 9 Merchant's Exchange,

CALIFORNIA STREET.....SAN FRANCISCO

Keep constantly on hand top and open Buggies, top and open Rockaways, Jump-seat Buggies, Track and Road Sulkies, Skeleton Wagons, Basket Phaetons of the very latest styles and finest workmanship.

We would call particular attention to our fine stock of Light Road and Trotting Wagons, made to order by the following celebrated makers:

Charles S. Coffey, Camden, New Jersey; Helfield & Jackson, Rahway, New Jersey; Gregg & Bow, Wilmington, Delaware; And the first-class makers, which we are prepared to sell on the most reasonable terms.

Also, a large assortment of single and double Harness, of the most celebrated makers: O Graham, New York; J. B. Hill, Concord; Pitkin & Thomas, Philadelphia.

Also, a full assortment of Dress and Light Blankets, Fur and Lap Robes, Whips, Halters, Surcingles, etc., at wholesale and retail.

CREGO & BOWLEY,

No. 9 Merchants' Exchange, California street, 2v7-5m San Francisco.

J. WAGNER,

MANUFACTURER OF

FRENCH BURR MILL STONES AND PORTABLE MILLS.



General Mill Furnishing. Portable Mills specially adapted for Farmers' use. 113 and 115 Mission street, San Francisco. 13v7-3m-2m

Plummer's California Fruit Drier.

PATENTED DECEMBER 29th, 1874.

This is the Cheapest and Most Economical, Largest Capacity, and Most Speedy DRIER, and gives the fruit a better flavor than any other machine ever invented. 1st—It only requires a shed to work under; 2d—has boiler, engine, and steam pump for irrigating or other purposes, in connection with the Drier or separately; 3d—the cost is one-half less than any other of the same capacity, and there is no danger of burning the fruit. A sample machine is in full operation at our factory, No. 31 BEALE ST. Address, SPAULDING & BRO., San Francisco, Cal. Send for Circulars.

Farmers and Threshers

WISHING TO HAVE

Straw Burning Engines

For next season must engage them soon, as most of those now building are already sold. Threshing Engines for Repairs should be sent in now. A number of second-hand Engines—taken in exchange for "Straw Burners"—for sale cheap. For particulars and prices, address: H. W. RICE, 2v8-3m Haywood, Alameda County.

PUMPS SLUTHOUR PUMPS

Are sold 50 per cent. under any other in the market, considering the amount of water obtained for the power applied. They have now been fully tested for IRRIGATION, and entire satisfaction is guaranteed. Call and see them, or send for Circulars.

J. M. KEELER & CO., Agents, 306 California Street, San Francisco.

ENRIGHT'S

Portable Strawburning Engines

Burns either Straw, Wood or Coal, Manufactured and sold by JOSEPH ENRIGHT, 8 v Jose. 18v13-3m

Allen's Planet Jr. Silver Medal

Hand Drills and Wheel Hoes. These new styles. They "sow like a charm," and hoe better, earlier, and six times faster than the hand hoe. R. L. ALLEN & CO., 118 1/2 St. Phila., Pa. Circulars free. A Live Agent Wanted in every town.

The Nurseryman's Directory.

The undersigned have in preparation, a NURSERYMAN'S DIRECTORY, embracing a list of the Nurserymen, Florists, Seedsmen and Tree Dealers of the United States. The work will be sold wholly by subscription, the price of which will be FIVE DOLLARS PER COPY. A limited space will be given to Advertisements, at the following low rates:

Full Page.....\$25.00
Half Page..... 14.00
One-third Page..... 10.00
One-fourth Page..... 8.00

One-sixth Page, \$5.50.

For Sample Pages, and further information, Address

D. W. SCOTT & CO.,

Printers and Publishers, Galena, Illinois.

J. & P. N. HANNA,

IMPORTERS AND DEALERS IN

Grain, Wool, Ore and Bean Bags, Flax, Cotton and Linen Twines.

COTTON, DUCK, RAVENS AND DRILLS—\$3, 36, 40

42 and 45-inch Wide Duck; 8, 10, 12 and 15-Ounce Duck.

Ore Bags, Tents and Hose

MADE TO ORDER.

Nos. 308 and 310 DAVIS ST.,

San Francisco, Cal.

The Hoadley Regulating Cut-off THRESHING ENGINES.



The above cut represents the Hoadley New Style Threshing Engine, 5-horse power, with Patent Cut-off Governor. We also have the same style and size, with HOADLEY'S NEW PATENT STRAW-BURNING FIRE BOX. This new engine has been thoroughly tested, and we are prepared to warrant it to give satisfaction, OUR GUARANTEE GOES WITH EVERY ENGINE IN THE FIELD. This new engine is fitted out complete, with High Seat, Foot-board for Driver, California Roller Biskie (not shown in engraving), Iron Hub, Patent Wheels, Forged Bent Axle, and all Mountings in Perfect Order.

THE

Hoadley Straw-Burning Threshing Engine

Is no heavier than wood burning engines of same power, and is unquestionably the Best Threshing Engine in the world. It is Lighter, Better Made, Safer, and will do More Work than any other engine of same size and price ever built. THIS FACT IS INDISPUTABLE.

Farmers and Threshers desiring to buy Straw-Burners for coming season, should secure their Engines Early, as the number is no large, and many are already engaged. All Engines will be tested in presence of customers, when required. Send for Circular and Prices. Address,

TREADWELL & CO., Sole Agents, San Francisco.

BOWEN'S PREMIUM YEAST POWDER.

Bowen's Premium Yeast Powder.

Bowen's Premium Yeast Powder.

Bowen's Premium Yeast Powder.

Bowen's Premium Yeast Powder.

Best in the World! Every Can Guaranteed!!

For Sale in Every Village, Town and City on the Pacific Coast.

Ask Your Grocer for It.

Manuf'd by BOWEN BROS., 432 Pine St., S. F., and 11th & 12th Sts., Oakland.

DUNBAR'S WONDERFUL DISCOVERY.

BETHESDA MINERAL SPRING WATER Of Waukesha, Wisconsin.

We claim Bethesda to be a specific in all cases of Diabetes Inflammation of the Kidneys, Inflammation of the Neck of the Bladder and Urethra, Inflammation of the Bladder, Drop-y, Gouty Swellings, Stoppage of Urine, Albuminuria, Ropy or Cloudy Urine, Brick Dust Deposit: Thick, Morbid, Bilious and Dark Appearing Urine, with Bone Dust Deposits; Burning Sensation with Sharp Pains when voiding Urine; Hemorrhage of the Kidneys, Pain in the Kidneys and Loins, Torpid Liver, Indigestion, Calculus, and Female Weakness.

There is no remedial agent known to man that can cure the foregoing diseases as effectually as Bethesda Water. This fact has been demonstrated wherever the water has been used according to directions, which can be had at the General Agent's by application to them. The water is sweet and pleasant to the taste. It can be drunk at all hours. Why should any one suffer while this Water is so easily obtained?

DUNBAR, HENDRY & LAVERY, Sole Agents for Pacific Coast,

ft77-cow-bp-3m

107 STOCKTON ST., SAN FRANCISCO.

RELIABLE.

UNEQUALED.

THE

ONE PRICE DRY-GOODS HOUSE

42, 44, and 46, Third Street, San Francisco.

THE GOODS ARE ALL MARKED, IN PLAIN FIGURES,

PEIXOTTO & SILVERMAN.

The attention of Wool Growers is continually invited to the

Thoroughbred Stock Bred and Kept on the MERINO RANCH,

Situated at Niles, Alameda County, Cal., only five minutes walk from the station, junction of San Jose and O. P. R. R. Parties desiring to visit our ranch can leave San Francisco at 3 o'clock P. M., and have an hour at the ranch, returning on Overland train at 6 P. M. Or coming out in morning, can return to city at 11 o'clock A. M. The proprietors make the

THOROUGHbred SPANISH MERINO SHEEP A SPECIALTY,

Believing them to be the BEST SHEEP IN THE WORLD, and are constantly receiving fresh importations from Addison County, Vermont.

Our flock are all Imported Sheep, and have no superiors in the United States. We always have on hand choice young RAMS and EWES, of all ages, for sale at Reasonable Prices, giving time, if required, to responsible parties. City Office—315 California Street, San Francisco.

SEVERANCE & PEET,

Importers and Breeders of Spanish Merino Sheep.

DURYEA'S SATIN GLOSS STARCH AND DURYEA'S IMPROVED CORN STARCH

Are the Best in the World.

USE IT ONCE AND YOU WILL USE NO OTHER.

For Sale by All Grocers.



The Messrs. Duryea have succeeded in refining Starch to entire purity and developing its entire strength and clearness, and improvement that will be readily perceived in the great strength of the Starch, the superior luster that it gives, and in its reliable uniformity. Much of the so-called starch contains from one-fourth to one-third foreign matter, readily perceived by sourness, mustiness, or a golden yellow tinge, peculiar to inferior starches, a color not desirable for one's linen but insupportable from the use of common starch. They pledge themselves to the public to give a uniformly superior article, from one-fourth to one-third stronger than any other starch in the world, and at the common market rates.

EGERTON, ALLEN & CO., Sole Agents for the Pacific Coast
San Francisco, California.



This is a Sure Cure for Screw Worm, Scab and Foot Rot in Sheep. It also kills Ticks, Lice, and all Parasites that infest Sheep.

Prevents scratching and greatly improves the quality of the wool. One gallon of the Dip properly diluted with water will be sufficient to dip one hundred sheep, so that the cost of dipping is a mere trifle, and sheep owners will find that they are amply repaid by the improved health of their flocks.

This Dip is guaranteed to cure when used according to directions, and to be vastly superior to Corrosive Sublimates, Sulphur, Tobacco, and other remedies which have heretofore been used by farmers.

Circulars sent, post paid, upon application, giving full directions for its use, also certificates of prominent sheep growers who have used large quantities of the Dip, and pronounce it the most effective and reliable known Cure and Preventive of scab and other kindred diseases in Sheep. mrl3-bp



Rowlands' Macassar Oil.

Preserves, strengthens, and beautifies the human hair; makes it grow thickly on bald places, and eradicates dandruff and the dandruff; has been in use all over the world for the last seventy-five years. ROWLANDS' ESSENCE OF TYRE has given red, grey hair to a permanent brown or black. Sold everywhere by all druggists, chemists, and patent medicine dealers. Ask for Rowlands' articles, of 20, Hatton Garden, London, and avoid imitations.

THE ALDEN

Fruit Preserving Company OF CALIFORNIA.

Is now prepared to sell rights and furnish the necessary machinery for using the "ALDEN PROCESS," acknowledged to be the best method known for preserving Fruits, Vegetables, Meats, etc.

For full particulars call at the company's

Office, 426 Montgomery St., S. F.

G. W. DEITZLER, President.

W. M. WHEAT, Vice President.

FRANK PYLE, Sec'y and Sup't.

BANK OF CALIFORNIA, Treasurer.

llv7-6m

Brittan, Holbrook & Co., Importers of

Stoves and Metals, Tinners' Goods, Tools and Machines, 111 and 113 California, 17 and 19 Davis streets, San Francisco, and 178 J street, Sacramento.

ARMES & DALLAM,

WHOLESALE DEALERS IN

WOOD AND WILLOW WARE

Baskets, Brushes and Twines,

Clothes Wringers,

Doty's Washing Machines,

AND

GENERAL HOUSE FURNISHING GOODS

And Manufacturers of

BROOMS, FANS, TUBS, WASHBOARDS,

DASH,

CYLINDER,

THERMOMETER,

AND SQUARE BOX

CHURNS,

215 and 217 Sacramento St., San Francisco.

PACIFIC POTTERY, SACRAMENTO.

MANUFACTURERS OF

Sewer Pipe, Drain Tile,

PLAIN FLOWER POTS,

FIRE BRICK.

JOHN B. OWENS, Agent,

No. 30 California Street, S. F.

5,500 ACRES

Of the best portion of the old NOMELOCKEE RESERVATION, in Tehama County, for sale very low; only five dollars per acre; one-third down, one-third in one year and one-third in two years, with interest at one per cent per month. Will be sold all together or in two parcels. This is one of the finest tracts of grazing land in Northern California; is abundantly watered by numerous perpetual springs and has two miles of the Elder Creek, a clear mountain stream. Its grass never falls from drought, and is of the best quality for sheep and has no clover burr. 800 acres of level plow land; timber for posts, fuel, etc. Enquire of ALLEN WILCOX, Los Angeles, or F. B. WASHINGTON on the tract twenty miles west of Tehama.

FOR SALE

In the Riverside, New England and Santa Ana Colonies, in the valley of the Santa Ana river, San Bernardino county, California, twenty thousand (20,000) acres of clean, rich, level, valley land, with an abundance of water for irrigation. There is no better land in the State for the orange and all other semi-tropical fruits, and no finer climate in the world. Inquire of W. T. SAYWARD, 420 Montgomery street, San Francisco; S. C. EVANS, Fort Wayne, Indiana; C. I. HUTCHINSON, 314 California street, San Francisco; L. UPSON, General Agent, Riverside, San Bernardino county, Cal.

\$5 to \$20 Per Day at home. Terms free. Address G. STYRON & Co., Portland, M

BAKER & HAMILTON,

Nos. 7 to 19 Front Street, San Francisco.

Nos. 9 to 15 J Street, Sacramento.

The Hollingsworth Rake

Is no New and Untried Rake, but has been before the public for the last Eight Years, and is Acknowledged by all Farmers of the Pacific Coast to be

WITHOUT A RIVAL AMONG SULKY RAKES.

It has Adjustable Compound Spring Teeth, TWENTY IN NUMBER, EACH OF THEM BEING QUITE INDEPENDENT OF THE OTHERS.

The Teeth are of Spring Steel.

NINE-TENTHS OF THE SULKY RAKES SOLD ON THIS COAST HAVE IRON TEETH.

THE HOLLINGSWORTH IS GUARANTEED TO GIVE SATISFACTION.



HOLLINGSWORTH SULKY RAKE.

Best Revolving Rake Ever Manufactured.

The Heads are Made of the BEST ASH, and the Teeth of the BEST HICKORY.

Thoroughly Oiled.

They always give Perfect Satisfaction.

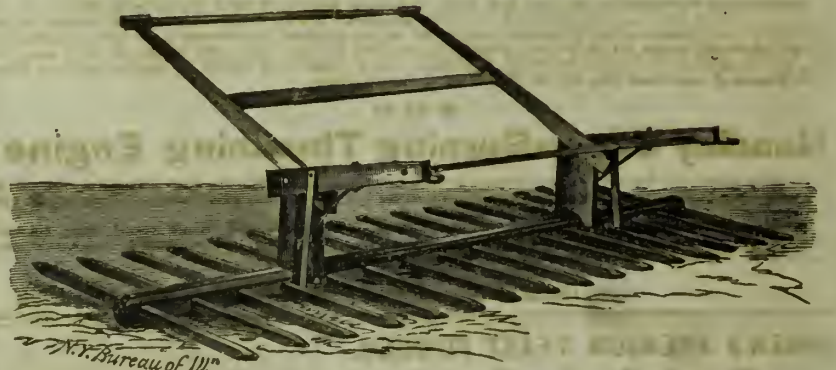
TRIPPING ARRANGEMENT IS SIMPLE, DURABLE, AND EASILY OPERATED.

It Requires only one Hand to Handle the Improved Tipping Horse Rake, either in Tripping or While Raking.



THE CHAMPION MOWER.

Champion Reapers and Mowers
ARE THE
BEST IN THE WORLD.
Address, Baker & Hamilton,
SAN FRANCISCO AND SACRAMENTO.



IMPROVED TIPPING HORSE RAKE.

Sole Agents for Ames' Celebrated Straw-Burning Engines.

SOMETHING NEW,
ORNAMENTAL AND USEFUL.

Pot-Plant, Garden,
Veranda Trellises,

Setchell's New Patent Trellises,

NEATEST, CHEAPEST & BEST

Thing of the Kind in the Market.

The extreme low price at which I am enabled to offer these Handsome Trellises, brings them within the reach of all.

THEY MAKE A

Substantial as well as an Ornamental Support for Plants.

Height of Trellises from 10 inches to 12 feet, and Prices from 10 cents to \$2, Each.

DESCRIPTIVE CIRCULAR FREE, ON APPLICATION.

Five Dollars will Purchase a General Assortment, which may be Forwarded as Freight or by Express.

ADDRESS ALL ORDERS TO

R. J. TRUMBULL, Seedsman,

AGENT FOR PACIFIC COAST.

427 Sansome Street, San Francisco.

EST A liberal deduction to Nurseriesmen and Dealers.

Calistoga Real Estate Company.

Calistoga, with a population of about 800 persons, is a village watering place at the head of the valley of Napa, in California. It is four hours' travel north of San Francisco by steamboat and rail.

Its shipping port is Vallejo, on the bay of San Francisco, forty miles distant by rail. It lies at the head of the most charming valley in the State.

THE BEAUTIES OF NAPA.

In traversing this thirty-seven miles of fertile dale, the eye never wearies. If one ascends the sides of the leafy mountains that bound the valley on either side, whether looking up the valley or down, and from whatever point of view, the scene is one of ravishing beauty.

Mounting the summit of St. Helena, which towers over all, far to the east the snowy Nevada bound the view; and to the west spreads the Pacific ocean, with its winged ships and its blue horizon. To the north are the vast forests of Mendocino, its stately trees, turned to shrubbery and Clear Lake in its pride of expanse dwindled to a mill dam.

THE WARM SPRINGS.

From the beauties of Calistoga we turn to its other attractions. The estate covers 2,000 acres of fertile land. Its warm springs are crowded with invalids, who flock to its healing waters, and who return cured of their rheumatism, their dyspepsia, their torpid livers and their tender kidneys. The medicinal elements of the hot springs are principally iron, magnesia and sulphur. In this climate, the season of watering places is prolonged.

THE SURROUNDINGS.

By consulting a map it will be apparent that Calis-

toga is destined to become a commercial town of importance. It is the center to which converge innumerable highways leading to many of the richest cultivated valleys of California.

INDUSTRIAL ENTERPRISES.

A new industry is now being introduced at the head of the valley of Napa, which will give easy employment to all the boys and girls, and contingently it will support other new industries. It is but the beginning of many others. Three miles below Calistoga is selected as the site of a large factory for sawing and canning fruits and vegetables, test now go to waste, and encouraging the production of more. In no part of California can these healthful elements of human food be cultivated more cheaply or more abundantly. Considering the depth of its rich soil, its prolonged season, and the extraordinary vegetable growth in this country, one acre may be considered equal to three elsewhere this industry is carried on in the Atlantic States. If irrigation be wanted, artesian waterflow may easily be found all along the valley, for it is backed by mountain ranges full of living waters.

MINES:

GOLD AND SILVER AND QUICKSILVER.

Calistoga is the center also of a great mountain range rich in mines of tin, silver and copper. Already its furnaces are producing mercury, and the product is increasing yearly. A number of valuable mines are now being profitably developed in the region around the base of Mt. St. Helena, at Pine Flat, on the Great Geyser road, and near Sillies' Mill, on the Clear Lake road. All of these are from ten to fifteen miles beyond Calistoga, to which point their products come, and from

which their supplies are carried. The deposits of tin, silver and copper are well defined veins, and as they are now being scientifically developed they bid fair to rival in productiveness the celebrated mines of New Almaden.

CALISTOGA REAL ESTATE CO.

The splendid property above described, containing 2,062 acres, divided into town lots, suburban lots, country seats, hotel property and farm tracts, has been bought by the above named company, and is now offered for sale to the public.

The Capital Stock of the Company is \$1,000,000, Divided into 20,000 Shares of \$50 Each.

The sale of a certain number of shares has been authorized by the Board at the rate of Twenty-five Cents on the Dollar, Making 12.50 Per Share.

By an arrangement between the former owner and the present company, no portion of this land or the proceeds of its sale, is consumed by expenses or in even the smallest degree diverted from the use and benefit of the stockholder.

Whoever buys Stock in the Company receives his pro rata share of this property, with its Crops and Rents in the meantime, without one cent of deduction for expenses of any kind, even including Taxes. And

this, too, no matter how valuable the property shall become.

Unlike the homestead schemes which have heretofore attracted our people, this plan gives homes and interests in and adjoining a town already built; where trade and growth are already assured, and where daily increase gives promise of greatly added values to all its property. It is a division of this ripened heritage that is now offered to the subscribers.

TRUSTEES:

E. W. BURR, President Savings and Loan Society.

C. HARTSON, President Bank of Napa.

J. B. FRISBIE, President Vallejo Commercial Bank.

JULIUS WETZLAR, Pres. Capital Savings Bank, Sacramento.

COLONEL J. P. JACKSON, San Francisco.

WILLIAM H. MARTIN,

GENERAL AGENT.

No. 1 Webb Street, Cor. California, S. F.

PACIFIC RURAL PRESS

Volume IX.]

SAN FRANCISCO, SATURDAY, APRIL 24, 1875.

[Number 17]

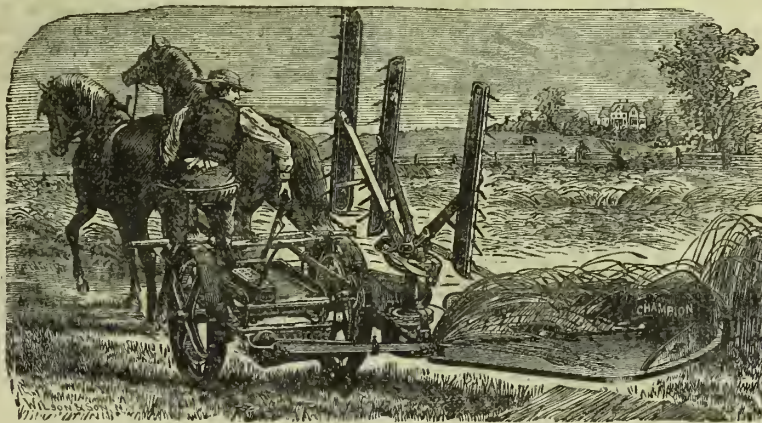
The Champion Reaper and Mower in California.

While recently in the store of Messrs. Baker & Hamilton, Nos. 7 to 19 Front street, we observed a very fine display of agricultural implements. Among the many noticed we will here speak particularly of the self-raking reaper and mower called the Champion, cuts of which appear on this page. They are manufactured by Messrs. Warder, Mitchell & Co., of Springfield, Ohio, and Messrs. Baker & Hamilton are agents on this coast. Upon expressing our interest in such matters Mr. Emory, the chief of their implement department, kindly showed us around and volunteered to post us in regard to its merits and the reputation it has acquired at home, where it is manufactured, in California, and in the European markets. Speaking of its construction he remarked that the frame is made entirely of wrought iron, instead of wood or cast iron, which has heretofore been the way of making such machines. This secures great strength combined with extreme lightness, a great feature for the State of California, especially on the hill lands. The connection of the finger bar to the frame is entirely of wrought iron. The wrought iron axle is stationary in the frame like the axle of the farm wagon, thus doing away with two unnecessary boxes which are always liable to wear out. The hubs of the driving wheels are nine inches long, giving great steadiness to the running of the machine. All of the small castings are of malleable iron made by the manufacturers themselves so as to insure having the best quality of work and thus prevent those frequent and annoying breakages which cause so much delay, vexation, and loss to the farmer in the field where he needs to have the best he can get. The finger guards are made of wrought iron and forged solid, the slot for the knife being cut out with a saw to insure greater accuracy than could be made by hand labor. The guard is then converted into steel and tempered as hard as possible to make them durable. Another valuable improvement is the patented pitman connection, which is used only on this machine, as it is the invention of one of the manufacturers and they think it of so much importance that they do not allow any other machine to use it. It seems to be a very perfect working arrangement for preventing the wear on the pitman bolt and preventing the breakage of the knives. It appears to save time and money and they say it is worth \$25 on every machine. This connection is made by a conical hook upon the pitman, entering into a corresponding socket in the knife heel, and secured therein by a ratchet bolt. By this arrangement the Pitman connection to the knife heel may be adjusted so that there is no lost motion in the knife, and much of the noise of the machine is prevented. The pitman connection to the fly-wheel is made by a hardened steel ball wrist, connected to the fly-wheel, with an adjustable composition socket-box on the end of the pitman, making a universal joint and an adjustment for taking up the looseness caused by wearing. There are two sizes of the Champion mowers, light and No. 4. The No. 4 is the one which can be used as a combined, while the light mower can only be used as a mower.

As a mower the Champion cuts very close, but by the aid of a small lever in the forward part of the machine it can be raised by gradations so as to mow any height up to five inches. This is a very desirable thing for this State where there is so much rough and cloddy land. It will readily be perceived that where there is a field with both smooth and cloddy land, it will cut close on the smooth land, and without leaving the seat, and while the machine is in motion, it can be instantly raised to pass over the clods, thereby getting all the hay without injuring the machine. By lifting the lever the cutter bar can be raised entirely from the ground so as to pass an obstruction while mowing, and it folds conveniently for transportation. As a combined reaper the Champion has four combinations, viz.: Mower,

hand-raker, self-raker and dropper. The self-raker is almost the only reaping attachment used on this coast and is a marvel in its way. The rake is driven by a stout chain and is under complete control of the driver, and large or small gavels can be raked off at will, or it may be set to rake automatically, delivering a gavel at each revolution of the rake, or it may be carried around the corner and delivered out of the way of the team when cutting the next round. Without the reaping attachment it is a complete mower, and with it a complete and satisfactory reaper. The system of duplication of the parts, a large stock of which are kept constantly on hand, is complete; any part may be replaced or exchanged while in the field, without the use of any tools except the monkey wrench.

The manufacture and sale of this machine

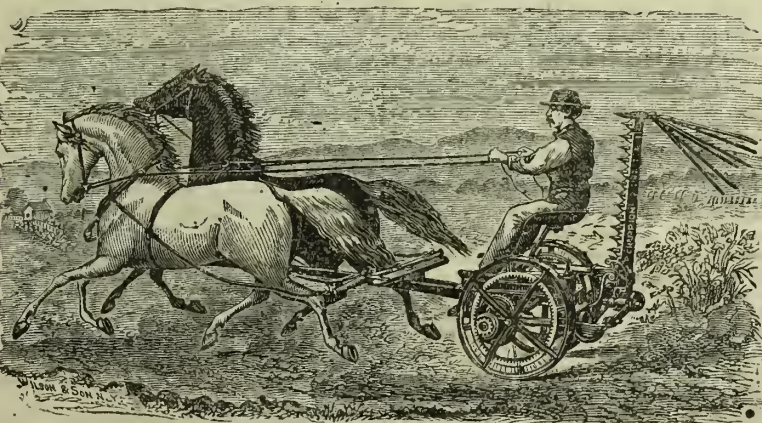


THE "CHAMPION" SELF-RAKER IN DOWN OR SHORT GRAIN.

has reached a magnitude that we never supposed had been attained by any one machine. The sales for 1874 were, we are told, nearly 25,000 machines; and there are now in course of construction 30,000 for the harvest of 1875. In addition to the United States they are largely sold in Europe, and last year the Champion carried off a large portion of the most import-

ing in a healthy manner, and as rapidly as we could reasonably expect. Accompanying the letter of Mr. Landrum are samples of mohair goods with the following note:

"These samples are of the first goods made on the new machinery of Hall & Turner, of Jamestown, N. Y., in their alpaca and mohair manufactory. They were made from Califor-



THE "CHAMPION" MOWER ON THE ROAD.

ant prizes awarded in Europe for actual contests in the field. In California we find on inquiry that there is a large and increasing demand for the Champion, the sales being much larger than Messrs. Baker & Hamilton had been led to anticipate.

Those of our numerous readers who intend purchasing a reaper or mower this year will do well to write for circulars or call and see the Champion before making their selection. We are told that every Champion is warranted and that purchasers take no chances in ordering them. The agents have sold so many that they are confident of success in every locality on this coast.

The Los Angeles Herald states that on the Stearns ranch, near Anaheim, myriads of young grasshoppers are to be seen, but as yet no damage has been done to the crops.

A MEETING of citizens of Tulare, Fresno and Kern will be held at Visalia on the 26th inst., to make arrangements for holding a district fair the coming fall.

Points Gained For Mohair.

In our correspondence department of recent date will be found a communication from Wm. M. Landrum, which will be of interest to all who have at heart the success of the industries of California. The adaptation of this country to the production of Angora fleece has been satisfactorily demonstrated, and the producers of the raw material have been somewhat impatient at the tardiness of capital and manufacturing skill in lending their aid toward making this, as it will undoubtedly in time become, one of the valuable products of this coast.

This matter, however, is evidently progress-

Sub-Soiling.

This is a practice that has been so efficacious in Eastern farming that some lookers-on evidently wonder why it has not been adopted by the farmers of California. The subject of sub-soiling has furnished an easy going hobby for the superficial newspaper agriculturists, who apparently take it for granted that the favorable reports of experiments in this matter are but indications of a new era in farming, and are impatient for its universal adoption. They should be informed that in many cases sub-soiling has been practiced, even at the East, without any perceptible advantage, and in others with palpable disadvantage. It is only practicable where land is very valuable, and even then only in certain qualities of soil.

Our attention has been called to this matter at the present time by the following note:

"Information Wanted,

Grangers and farmers generally please answer:

1. Whether sub-soiling would not be a profitable method of farming in California?
2. What depth it would require to be sub-soiled.
3. Whether the under part of the ground would require to be turned over, or the bottom of the first furrow only stirred or loosened up to a certain depth?

By inserting this in your valuable paper you will much oblige a constant reader."

When the high price of land in California restricts the field of operations for farming, and when farmers can afford an increase of 400 per cent. to the cost of plowing, then we may expect to see sub-soiling come into vogue; and even then it will take a long time to solve the above questions. We may expect differing and almost contradictory reports from different localities. In some it will be found practicable to sub-soil deep; in others shallow. Probably in no case will the experienced California sub-soiler advise turning over the soil.

Those who suppose that sub-soiling is a necessary adjunct to progressive farming have taken a superficial view of the matter, and to expect its indiscriminate adoption in California is simply preposterous.

It is perhaps proper to state in this connection that the wise men of the East have, on subjects akin to this, received some very suggestive hints from the agricultural babes and sucklings of the newer countries. In hoed crops, for instance, it was formerly supposed that the higher the hills were hoed the better the crop would be; and the altitude of a farmer's merits was gauged by the height of his corn and potato hills. But when this same class of farmers left the cramped fields of the Middle States and went to the "Far West," where a hundred acres of corn was considered no larger than their former ten-acre field, they found it altogether impracticable to hoe up the elaborately constructed hills which they had once considered indispensable in corn growing; but they were agreeably surprised to discover that with little or no hilling they raised as good if not better crops than under the old system.

They were, however, for a time, disposed to believe that the virgin soil possessed some inherent charm which supplied the place of the orthodox "thorough culture," and as opportunities offered they revived the old practice, expecting a marked increase on their "make-shift" system. But they soon found that this was a step backwards, and their minds were opened to the possibility that they had been overdoing the hoeing business. Experiments of the most thorough and practical character demonstrated the fact that hoed crops want but little hilling under any circumstances, and in most cases are better without any hilling. This established principle was soon adopted by the farmers of the East, and now every intelligent farmer acknowledges that it is by stirring the earth and keeping the crops free from weeds, and not by the formation of hills, that hoeing was ever beneficial to these crops.

The same may be said of deep culture, though this is a comparatively modern hobby, and we should not expect a similar reaction here, and a general going back to shallow culture; but a good many farmers and gardeners have learned that the plowshare and spade may be put too deep in the soil, and that this theory of deep culture has been run into the ground.

HAYING has commenced in Sonoma county.

CORRESPONDENCE.

[The RURAL PRESS, in opening the columns of this department to its correspondents, does not desire to lay before its readers anything which is not in keeping with its character and position as an agricultural and family paper. Facts are always thankfully received; and suggestions and matters of opinion on subjects connected with agriculture are also acceptable; though correspondents are to be understood as speaking for themselves and not for the PRESS.]

Potter Valley—Crops, Fruit, Etc.

[Reported to the PRESS by Mrs. C. I. H. NICHOLS.]

Looking over your weather reports, I infer that Potter Valley is peculiarly favored as regards drouth and uniformly paying crops.

On Wednesday, the 24th ult., rain set in, soft, warm and gentle, and with occasional intermissions continued until Sabbath evening. It is said that a good March rain has never failed to visit this valley; usually it has preceded the 22d by some days. So when the 22d came and went and no sign of rain, the oldest inhabitant confessed to "never having felt scared before," implying that his faith in the heavenly irrigation of Potter Valley was "letting go." But the heavenly gulch opened its sluices in good time and grain fields and pastures have renewed their early promise of abundance for man and beast. A larger acreage than usual has been sown, and notwithstanding the check of frosty nights, the late sown wheat has made a fair growth and is of a fine healthy color. There will be very few if any peaches, and it is feared that the severe frosts of the last few nights have blighted the early fruit of other varieties. With a moderate supply of fresh fruit, more especially apples, and our abundance of canned and dried fruit of last season, we will, however, be comfortably provided for.

Some of our farmers are experimenting with hops. I think the largest venture is that of John Mewhinney, Worthy Master of Pomo Grange, who has planted thirty acres to the "lager" vine. And by the way, the W. M., who is also a bachelor—more's the pity—has just completed a very fine residence, at a cost of \$6,000 and over. Quite a number of snug, cosy homes have been erected in the valley within the past year, and Potter Valley Grange has erected a good hall in Centerville with a store room on the ground floor. Both Granges are seriously discussing the establishment of Grange stores in their respective villages. The movement is not based on any particular dissatisfaction with our merchants, who deal as fairly and are content with as small profits, probably, as any others of their class, but the farmer wants money, and justly feels that a system which saves money by purchases at first hands and at wholesale prices, and makes a profit by selling at advanced prices, and a profit additional to that, on the produce which the farmer gives in exchange for his groceries and dry goods—is taking what he needs, and what by a wise co-operative policy might be converted to a generous provision for family subsistence and leave him a cash surplus to pay his taxes and invest in desirable improvements, banks or business associations, books, and a feeling of honest independence.

Pomo Grange rejoices in seventy-five live members, an organ, and social enjoyments that meet the long felt need of a scattered farming population. Potter Valley Grange has about the same number of members as Pomo Grange. Quite a number of farmers, mostly renters and unmarried, have left the upper part of the valley for other sections of the State and lessened the Potter Valley Grange membership.

A second Good Templars' Lodge has been organized in the valley with a membership of sixty-nine. The first holds its meetings in Centerville, the second in Pomo Grange Hall. If an increased population, an increased area under cultivation, additional industries, and the absence of all resorts for idleness and mischief, are evidences of progress in desirable directions, Potter Valley holds the winning card. We have no lawyer yet and no use for one, but a shoemaker and a doctor have settled themselves in Pomo since my last report.

I presume you have noticed accounts of the mineral excitement in all this region and of rich findings a few miles on either side of us. A mining company has been organized in this valley, numberless claims staked and prospecting advanced to the dignity of a regular pursuit. Possibly before harvest is ended John Chinaman will be missionarying among us, eating our chickens and exterminating our rodents.

At the street corners, stores and shops, you may see groups of men literally putting their heads together, unloading pockets full of rocks and, with some old miner in their midst, earnestly discussing "splendid indications." These groups are not made up of loafers but of the better class of heads of families and heads without families, many of whom have a practical knowledge of processes and results, as well as indications in mining. But enough of the speculative. While I have been writing the rain, warm and gentle, has come again to make us doubly sure of good crops. Sheep never made better returns than the present season. Flocks not crowded are in fine flesh, raise all their lambs and have made heavy fleeces.

Potter Valley, April 8, 1875.

Lands in Amador County.

EDITORS PRESS:—Being a subscriber and reader of the PRESS since the commencement of its publication, and not having noticed any communications in it from this portion of the State, with your permission I will state a few facts in regard to the agricultural and other resources of this part of Amador county.

We have here in Ione, Jackson, Dry creek and Buckeye valleys some of the finest alluvial bottom land in the State, which produces the finest crops of corn, potatoes, vegetables and fruits of all kinds without irrigation; also, all kinds of grain, grasses, and tobacco grow to perfection, as I know from actual test, having cultivated and cured several acres of superior quality, and from my experience in the cultivation of it in the Atlantic States, I am satisfied there is no better tobacco land in the world. We have some fine hop farms which produce a superior quality of hops. In the hills adjoining our valleys we have large beds of coal of good quality for all purposes of fuel.

Being situated in the foothills, away from the bleak north winds of the plains or of the cold regions of the higher Sierras, our climate is all that can be desired. Land is worth about \$50 per acre, taking farms, say half bottom and half red lands. There is every inducement for immigrants looking for homes to pay us a visit.

Now, Mr. Editor, from what I have written don't think I am a land "shark," or have lands for sale; not a bit of it; I only own a small farm which I have lived on and cultivated twenty-two years, and have sons and daughters that are men and women, that were born here, and my place is not for sale. But we have bachelors, lots of them, owning large holdings of our best lands, that I would like to see bought out or induced to get married, so that our schools and society would receive some benefit from them.

Crops in this section look well. We have no fears about our crops here, for we have never had a failure since we have been farming here.

J. C. HAMRICK.

Ione Valley, Amador Co., April 7th, 1875.

Jack Rabbits and Grasshoppers.

MESSRS. EDITORS:—Can you inform me through the columns of your paper of any preventive against Jack Rabbits and Grasshoppers in their ravages on young grapevines?

I, with one of my neighbors, have planted say 20,000 grape cuttings, but have at present no facilities for building a rabbit tight fence toward against the first evil, and the last mentioned scourge is about making its appearance in this valley (San Pasqual). Is there any way to rid one of these two pests?

Several of your subscribers have requested me to present this point to you for elucidation if in your power.

J. M. MATTHEWS.

Los Angeles, April 4th, 1875.

[We have never yet found any preventive against rabbits, except a tight fence. People who have been in the predicament described by our correspondent assure us that the only way that they could work through such an emergency was to make vigorous war upon the invaders with dog and gun. But in the case of the grasshopper even this satisfaction is denied. Sometimes when they come in compact armies as in some of most grasshopper-scourged countries, their course may be diverted or temporarily delayed by burning grass or brush, or by digging trenches; but where the increase is gradual and the numbers moderate there is no remedy that we are aware of, though a good stock of poultry will do much toward exterminating them or at least in checking the increase of production.]

We would take occasion here to warn the people of California not so much against the approach of grasshoppers as against unnecessary alarm at their approach. We may have to submit to the presence of this insect in our State, but it does not follow that it must necessarily prove a terrible scourge here. In the best agricultural districts of the East it has prevailed through two or three generations of men and we don't know how many generations of grasshoppers, but people there are not much scared or hurt by their presence.—EDS. PRESS.]

From Vacaville.

EDITORS PRESS:—Not seeing anything in your valuable paper concerning this part of the county, I thought I would contribute my mite. There is quite an excitement in our usually quiet village over the extension of the Vacaville railroad to Winters' Ranch, on Putah creek. It will make things lively for a time, but I am afraid will eventually prove disastrous to our now fast growing town. The Grangers and community at large are making preparations for a grand time the first day of May. They intend having a picnic. The farmers in this vicinity anticipate having a good crop the coming season, although we have had a hot north wind for the past few days; but all are in hopes that it will not injure the grain.

ELIZA.

Vacaville, April 12, 1875.

Wheat Damaged by Frost.

MESSRS. EDITORS.—I have sent you by mail a box containing nine stems of wheat for your examination. The wheat is from Mr. Beach's place on the black land, six miles from Stockton, San Joaquin county. Mr. Beach and Mr. Kingsley have in 1600 acres of wheat and barley. They have examined it to try and ascertain the amount of damage done by the late frost. At first appearance the wheat and barley on Mr. Beach's home place does not appear to have suffered from the frost, as it looks nice and green, like the samples I now send you and is about twice the length. I spent about half an hour with Mr. Beach in his fields examining the grain and found it in the same condition as samples I send you. Mr. Beach says four of these heads you will find good; five of them you will find killed by the frost. Take a knife and split each of them on one side until the head is visible and you will find the head diminutive in size, perfectly formed, but commencing to decay and showing yellow. Those, Mr. B. says have not grown any since the frost and are quite dead. He considers it impossible to form anything like an accurate estimate as to what amount of damage is done, and that numbers of heads are much diminished by the frost; but he thinks that the portion not damaged will be improved in size and weight, which will in a measure help to make up for the loss.

This wheat is of the kind known as Prop or "Proper." Some heads that were well formed are damaged at the top only, say $\frac{1}{4}$ of an inch. The bearded wheat appears to have stood the frost better than that not bearded, the beards acting as a protector. I find general complaint about fruit crops being killed. If you think well to use the above, please write what portion of this you think will yield well, with whatever you think necessary to say after examination of sample.

J. W. RILEY.

[We have shown these heads to experienced grain growers, and they speak very discouragingly of wheat so affected. They say the middle of the head will probably be good, but both ends will produce little if any grain, and they predict that the stalks will be dwarfed in their growth.]

It is with extreme regret that we learn from this and other quarters, that the wheat crop in the lower portion of some of the grain districts is seriously damaged by the late frost.—EDITORS PRESS.]

Further from Los Angeles County.

[From our own Correspondent.]

EDITORS PRESS:—In long geological periods wonderful changes are wrought. These for the most part are slow, sometimes rapid. Only eight years ago all the water of the San Gabriel river was carried to the ocean in one channel. Now there are two rivers instead of one, running nearly parallel, some three miles apart.

Between these, known as the Old and New Rivers, is the village of Los Nietos, ten miles from Los Angeles, on the railroad to Anaheim. Taking this place as a center, settlements in the vicinity of the rivers included, no larger body of good arable, well-watered land, perhaps, can be found in so compact a form in any other part of the county. The great staple is corn.

Some fine fields of rye and barley have been cut for hay, being too much damaged by the late frosts for grain. These were volunteer crops. Later crops have escaped the same injury.

Apples, peaches and similar fruits usually do well here, although badly nipped this year.

As the pros and cons of this locality have been so fully presented by resident correspondents within a few weeks past, the shortness of this letter will be the more readily excused.

Yours in haste,

A. C. K.

Los Nietos, April 14th.

Curb on a Horse.

EDITORS PRESS:—Will you please inform me if you know of any cure for curb on a horse. I have a young horse which has a curb on his off hind leg. Would like to try and experiment to cure him. Curb is immediately behind joint, above fet lock.

J. C. Mc J.

Porterville, Tulare Co., Cal., April 10, 1875.

[The following which we clip from an exchange seems applicable to this case:—EDS. PRESS.]

"If there is much inflammation this should be reduced first. Do not feed high, apply cooling applications, and give entire rest. Acetic acid may be applied twice daily. If the enlargement is not reduced, biniodide of mercury one drachm, and lard one ounce, mixed and rubbed into the skin, after cutting the hair short, may be applied daily. Wash daily with hot water fomentations. The ointment application may be continued three or four days and repeated after a week's rest, if the desired effect is not produced."

From Fresno County.

MESSRS. EDITORS:—Since my last letter there has been a great change come over this part of the county; on April 5th we had rain, hail and snow, amounting to $\frac{3}{4}$ of an inch, which appeared to do considerable good for a time, but on the 9th inst. the weather set in quite warm, and continued until the 14th, when it moderated. Two days of that time the thermometer reached 90°. All the early grain is badly damaged by the heat; a portion of it is gone even with rain. Even the summer fallow wheat, in some instances, has given away under the great pressure. The good results from irrigation can now be readily seen, as nearly all the land that was flooded the last of April and in May, one year ago, both volunteer and late sown wheat, is looking well, shows no want of moisture, and promises a yield of at least 20 to 30 bushels per acre if the weather is fair; and that portion that was flooded again this season will yield better. But, unfortunately for us, there was but little land irrigated last season, and but little more this year, so far, owing to the scarcity of water.

I learn from good authority that the company is now at work on the ditch, to bring water from the north fork of the San Joaquin river. It is believed that we will have that water within fifteen or twenty days. If so, we will be able to save a part if not all of the late sown grain, which looks vigorous as yet, with few exceptions. We have good evidence that to flood the land thoroughly once will insure two crops. I notice a small piece of land near Borden that was flooded one year ago while a crop of wheat was on it, then broken up last winter and sown to wheat, in connection with other land not flooded, and the result is, that which was flooded is growing rapidly, and stands ten to twelve inches above that which was not flooded.

Yours truly,

FARMER.

Borden, Fresno Co., April 17, 1875.

HYGIENIC BOOT SOLES.—Is there any method of making the bottoms of boots so moisture will not pass through them? This is a practical question—several methods have been tried. One is to have a cork layer between the inner and outer sole; but this thickens the boot bottom too much. Another is to cover the bottom of the boot with rubber; but the rubber soles are apt to come off, as they have to be cemented on. Still another way is to have a rubber sole with a leather margin pegged on, and this we think has proved more or less satisfactory; but it is difficult to introduce it. What is needed is that common leather should be so prepared as to be impervious to water. It can be done—who of our hygienists will do it?

A NEW WHITE pigment is, according to the *English Mechanic*, demanded by the exigencies of modern industry. The paint should be as good a coverer as white lead, not easily discolored by the chemical action of gases, and, when mixed with oil, should work easily under the brush. The white pigments in general use are white lead, sulphate of baryta, Spanish white and zinc-white. The latter does not become discolored under the action of sulphuretted gases and sulphur vapors, not because sulphur gases and vapors do not form sulphides of zinc, but because the sulphide of zinc which is formed is, unlike other sulphides, destitute of color. Of course an essential quality of the new pigment must be cheapness.

IMITATION OF TORTOISE SHELL.—The appearance of tortoise shell may be given to horn by brushing it over with a paste made of two parts of lime, one part of litharge, and a little soap-lye, which is allowed to dry. This is the same as the Indian hair-dye, and acts by forming sulphuret of lead with the sulphur contained in the albumen of the horn, producing dark spots, which contrast with the brighter color of the horn.

A SIMPLE, cheap and efficient protection for steam pipes may be prepared as follows: One hundred pounds of clay are mixed with water, and one hundred pounds of fine ashes added and well kneaded, then mixed with one pound of hair. This mixture is well incorporated and allowed to stand until needed to use. Just before using, ten pounds of ground plaster of Paris are mixed with it. The mixture, of course, soon sets, and cannot be kept over twelve hours after the plaster is added.

POWER REQUIRED FOR THE CIRCULAR SAW.—We find the following in an exchange: "A circular saw requires one horse power for every seventy feet of lumber cut per hour. Periphery of the saw should run six thousand feet per minute. A thirty-horse power driving a saw of four feet diameter five hundred revolutions per minute, will cut two thousand feet of boards in an hour, when in good order."

PLANISHED SHEET IRON, said to be superior to the best Russian sheet iron, is said to be turned out by a company recently organized in Pennsylvania. The company has hit upon a very happy device for a trade-mark. It represents the Russian bear lying upon the broad of his back, with an American eagle crouching over and holding him helpless with talons and beak. The idea is spoken of as a very "good hit."

POULTRY YARD.

Ashes for Poultry.

[From C. I. H. NICHOLS.]

Some weeks ago a correspondent of the PRESS objected to ashes within reach of poultry, as engendering cholera and gapes, and in proof states that poultry shut up with "only strong lye to drink, will die in twenty-four to forty-eight hours." I have raised chickens, more or less, for thirty years, and have relied mainly on a free use of ashes scattered broadcast under the roosts, in the rolling places, in the nest boxes (under straw), as a preventative of disease and vermin. I have in no year lost over, and seldom so many, as five per cent., from any and all diseases together. I have often noticed my poultry, young and old, drinking from ash drains, and, being apprehensive of ill results, watched them until satisfied that a weak infusion of alkali in their drink was at least harmless, and as they preferred it where plenty of pure water was as easy of access, I came to the conclusion that there must be conditions of the poultry system harmonizing, at least, with an alkali. In Kansas I had a neighbor who, for a succession of seasons, lost many fine fowls with cholera. She had a leach put up for soap making. After the ashes had been thoroughly leached for soap, she continued to run water through them for breaking the hard well water, and kept it standing in the leach trough where her poultry had free access to it. Cholera left, and for the two seasons following—up to the time of my coming here—her poultry was healthy. The ashes had been kept out of their reach previously. Strong lye, like many another good thing, in concentrated form, is destructive to animal life generally. Sour milk is excellent for poultry, but I am satisfied that too much causes cholera.

Ulcer in Throat—Treatment of Chicks, etc.

EDITORS PRESS:—Having recently lost a very valuable Leghorn hen by sickness, I sent to Mr. M. Eyre, Jr., of whom I purchased my stock, for his method of treating the fowl under like circumstances. Also, in regard to raising chickens—how he was so successful while many fail. I got the following answers to my questions, which, as I know many of your readers would be glad to see, I ask you to publish. Since receiving Mr. Eyre's letter I have had another hen attacked in the same way and cured her in a few hours:

Questions:—A few days ago one of our finest Leghorn hens was taken sick and died in a few hours. She refused food all day, sitting with her head drooped. Her comb turned purple and she had an excessive diarrhoea. Can you tell from the symptoms what her disease probably was?

I wish also to ask you in regard to chicks. The broods come out of the shell finely, but die within a fortnight. Please tell me your mode of treating young chicks.

Answers:—As near as I can judge, the hen of which you wrote me was afflicted with cancer. Sometimes filth, or other extraneous matter adhering to food, causes an abrasion, from which an ulcer forms, especially when fowls are over-fed, and become too fat. This ulcer, whenever formed in the mouth, by the breath passing over it soon starts a similar ulcer on the rim of the glottis, and this spreading, soon fills and closes the larynx. This stops the breath. The futile efforts to breathe cause a rush of blood to the head, and the comb and head become purple or nearly black, and the fowl dies. Symptoms:—Mouth held partially open, difficulty in breathing, refusal to eat. Catch fowl and you will see ulcers, or a cankerous growth, on roof of mouth, under or on tongue or elsewhere. Sometimes the mouth is full. Look at opening of wind-pipe especially. Remedy:—Scrape off all the ulcers with a stick. (To hold the fowl, I use a saddle, but to hold in hands, take fowl in left hand, legs of fowl in right hand, place feet and legs up under arm-pits of left arm and firmly close down the arm. Place forefinger of left hand in between bill, right thumb on right side of head, hold firmly. Let wings go loose.)

Then touch each ulcer with Labarraques loction, to be had at any drug store. I use a camel's hair pencil. Give her a table spoonful of castor oil, and feed her if she will not eat of her own accord. Touch the ulcers with the solution three times a day, and a cure will soon be effected.

In regard to the chicks, their death is caused either by cold or lice. Signs of either or both:—Chicks standing with head drawn in, and a sleepy, grumpy look. Excrement adhering to fluff. Suggestive of diarrhoea. My mode with young chicks is the following: I set hens in boxes with doors, size 13x13x13 inches; when the chicks hatch I remove egg shells and shut the door; leave chicks, which require no food until the egg-bag is absorbed, at least twenty-four hours; they require only warmth; and if it rains I leave them forty-eight hours. Thus shut up they keep warm and get a start in strength. Every hen in the world will have some lice on her at times. I dust her thoroughly with my carbolic powder when I put her to

sit. But now after the twenty-four or forty-eight hours, I take box out to side of coop; I take out the hen and dust her thoroughly with my carbolic powder, then place her in coop and give her a good feed of corn-meal. I take each chick and anoint very sparingly with my ointment on top of head and under throat and place in coop. (I also mark each chick in web of foot and enter marks in book, so I can always tell the parents, date of hatch, etc.) The hen has by this time had her appetite somewhat satiated, so now I crumble a hard-boiled egg for the chicks. I keep hen in coop all the time for the first four or five days, moving hen each night in coop to clean ground. After that I let her out during day, when it is warm and sunny. Feed as often as you can, and not too much at once. Vary the food. Give some meat and scraps from the table, cut fine, and if they are not on a grass plot, you must give green food of some kind, cut up fine. The carbolic powder of which I speak, I put up myself, in five pound packages, for my customers. SUBSCRIBER.

SHEEP AND WOOL.

Eastern Wool Market.

NEW YORK, April 17.—Continues very dull for all kinds of clothing and carpet material, but prices show no important change. The dullness is owing to the depressed condition of the goods market. Manufacturers say the season is the dullist in many goods since 1871. During the week the well known wool house of Walter Brown, Son & Co. suspended. The cause is attributed to depression in trade, shrinkage in prices, and difficulty in making collections. It was reported that the creditors had granted an extension, and that the firm will continue business. The assets and liabilities are not reported, though it is understood that the latter are light. Sales for the week comprise 25 bales of Montevideo, at about 38c.; 3,500 lbs. Fall California, at 20@23c.; 130 do. Spring do., 22@36c.; 10,000 lbs. bucks' 14c.; 6,500 lbs. lambs', 25c.; 30,000 lbs. scoured, 65@80; 15,000 lbs. medium Texas, part at 35c.; 2,600 lbs. fine do., 23c.; 5,000 lbs. Western do., 28c.; 2,500 lbs. fine do., private; 120 bags super pulled, 36@48c.; 135 do. X., part at 45c.; and 15,000 lbs. do., 50 do. combing do., 21 do. No. 1 do., and 50 do. super do., private; 15,000 lbs. choice XX. Ohio fleeces 56c.; 25,000 lbs. fine unwashed do., 37c.; 7,000 lbs. medium do. Western, 43c.; 3,000 lbs. coarse, 44c.; and 10,000 lbs. washed on private terms.

Boston, April 17.—There has been a fair amount of business in Wool, but the trade continues unsatisfactory. Holders are disposed to close up stocks as fast as possible, but manufacturers are quite indifferent about further supplies, and are purchasing only for immediate wants. The Spring trade in goods has rather disappointed expectations so far. The feeling grows stronger that prices of Wool must settle down when the new crop of the country begins to come in. Fine fleeces have been more sought after the past week, and sales have been 396,000 lbs., mostly X and above, at 52@54c.; some very choice XX and No. 1 at 55c.; and a lot of 15,000 lbs. choice No. 1 at 59c. P. lb. Included in the above are 225,000 lbs. choice Pennsylvania and West Virginia fleeces, at about 54c. P. lb., to arrive. This was the only considerable lot of Wool held in the interior, and was taken by one of the leading mills. Recent transactions in fine fleeces have materially reduced the stock, and the supply now in the country is in the hands of very few houses. Combing and delaine fleeces are still sought for, and command full prices; a lot of 10,000 lbs. domestic selling at 67c. P. lb. No. 1 is also very scarce and wanted, and continues to command a higher price, a lot of 15,000 lbs. choice Ohio having been taken at 59c. Pulled wool is still in demand at unchanged prices. The supply for some weeks past has not exceeded the demand; but, with any falling off, prices would recede. In California Wool, transactions of the week have been 21,800 lbs. Fall, at 15@25c., and 61,000 lbs. Sp. ing, at 30@36c. P. lb. Recent receipts of Fall Wool have been of much better quality and condition than any previously received.—Call.

The Most Profitable Kind of Merino Sheep.

The National Live Stock Journal gives the following report of remarks by Mr. Humbert at a recent meeting of the Southeastern Wisconsin Association of Sheep Breeders and Wool Growers:

Mr. Humbert expressed the opinion that the true question which should be considered was, what sheep are the most profitable—will give us, one year with another, the largest returns? That the American Merino or imported Spanish were the most profitable for mere wool growing is believed to be beyond dispute. He would not question the weights of fleeces recently claimed for the French Merino in California, but he believed if such weights were ever made there, they could not be realized in Wisconsin.

The French had been tried here—by Mr. Perkins, the President, among others, years ago, and were not satisfactory. Our climate is not suitable to such a sheep, or the growing of such a fleece. It is too cold, even if suitable of other respects.

This question of the most profitable size in sheep and weight of fleece was by no means

a new one. It had divided breeders and their practice for years. In Vermont the effort had been made to secure sheep which would produce the most in proportion to the weight of carcass. This had been the principal consideration of breeders in the State, to which pretty much everything else had been made subordinate. In New York the breeders took a somewhat different course, and breeders there demanded a good, strong sheep, with a good constitution, even if the increase in wool was not in proportion to the carcass. He regarded the practice of the New York breeders as the best, and as embodying more common sense.

A good, strong sheep with a large fleece is the best, all things considered. He did not believe in pushing size to an extreme, still he wished to impress upon the minds of breeders that it was a matter which should not be lost sight of. It was the practice of many—an erroneous practice by which the size of the sheep in their flocks was kept down—to give the preference to a small sheep because it had a good coat of wool on its belly, over a large sheep not covered on that part so well. He had been assured by the best breeders in New York, those who had made the matter one of careful study, that they simply considered the length of the fleece upon the belly, but paid little attention to its density. If it was shorter there than upon other portions, they rejected the animal as an undesirable breeder.

Our Western breeders, who sometimes reject an animal because the wool upon the belly happens to be thinner, commit a great mistake. He believed, as a general rule, if breeders make too much effort to thicken up the fleece upon the belly it will shorten the staple in the more valuable portions. And this was not desirable, because delaine wools were quoted the highest—about on a par with combing wools—and a long staple he would consider better, even if it brought no more in the markets.

Constitution and size are all important, and without them he regarded the sheep as of little account. Mutton is yearly coming more and more into demand, and little sheep would not make mutton—profitably, at any rate. His model was a good-sized sheep, if he could find it; but, little or big, one with a good broad breast, legs wide apart, indicating plenty of room for the respiratory and other vital organs. He always avoided little narrow-breasted animals, with both forelegs coming from the same place.

Importance of Home Manufactures.

It is to the mineral wealth and manufactures of a State that the people mainly owe their wealth. Just in proportion as prosperity accompanies the working of their mines, their furnaces, their foundries, their forges, their machine shops, their rolling mills and their myriad of manufacturing operations, wherein their raw products are converted into articles for use, in just such proportion does wealth increase and prosperity abound throughout the community.

Real estate, in city or county, gets no value which labor does not impart to it. "Labor mixes with the soil, and that gives value to land." Labor is capital, in fact; money, which is generally regarded as capital, is nothing but concreted labor. It is simply what a man gets as a representative of his labor.

Labor, or rather the facilities for utilizing it, is California's greatest need to-day. We have an abundance of money—called capital. So abundant is it, that gold, like the gulf stream, flows eastward continually. There is no return current in kind. Nothing comes back but perishable goods, which we should produce here, instead of importing from abroad. We import millions of commodities adding to the wealth and comfort of others, which ought and might go to swell our own values—and that too while thousands of our own people are idle for want of occupation.

To give some idea of the amount of the imports, which we should produce at home, we append the following statement of merely what was received by rail, during the last six months of 1874. This it will be recollected was in addition to what was received by steamer and sail vessels. The figures represent pounds:—

Agricultural implements.....	68,052
Alcohol.....	1,540,030
Aces.....	198,310
Bacon.....	192,840
Baking powders.....	398,690
Belting and hose.....	226,970
Boots, shoes, etc.....	210,870
Boots and other rubber goods.....	1,272,953
Butter.....	505,760
Candles.....	105,720
Canned goods.....	547,691
Chair stock.....	1,573,980
Carpeting.....	940,992
Clothing.....	658,720
Coffee.....	792,950
Cottings.....	1,066,165
Cranberries.....	97,550
Custons.....	388,770
Domestics.....	16,590
Eggs.....	475,450
Fabrics.....	374,330
Furniture.....	5,243,130
Ginseng.....	5,243,130
Hams.....	2,207,230
Iron.....	390,650
Leather.....	601,440
Linseed.....	274,180
Machinery.....	2,005,270
Merchandise.....	3,310,510
Oil.....	18,660
Paper.....	15,880
Shoes.....	459,010
Silk.....	1,417,190
Staves.....	652,510
Tea.....	665,500
Tobacco.....	1,158,031
Wagon.....	142,330
Wine.....	5,103,600
Wool.....	89,810
Woolen goods.....	1,926,820
Woolen yarn.....	1,971,842
Woolen yarn.....	326,070
Woolen yarn.....	46,240
Woolen yarn.....	217,410
Woolen yarn.....	436,500
Woolen yarn.....	252,900
Woolen yarn.....	285,180
Woolen yarn.....	458,530
Woolen yarn.....	3,817,350
Woolen yarn.....	94,010
Woolen yarn.....	931,000
Woolen yarn.....	2,215,740
Woolen yarn.....	102,740
Woolen yarn.....	183,210
Woolen yarn.....	220,190
Woolen yarn.....	35,901,483

Fully four-fifths of all the above goods might have been produced from our own soil, or manufactured by our own mechanics. It should be further borne in mind that not one half of our actual importations for the time mentioned are given in the above table.

From this list the reader may learn something of the large class of goods which are being imported to this coast, fully two-thirds of which might and should be manufactured or produced here. It is safe to say that the manufacture here of goods now received from the East, which might be produced in California, would require an addition to our population of fully one-half its present total. Such an addition to our population would moreover furnish a home market for a large portion of our surplus bread stuffs which we are now compelled to send to a distant market. The time is not far distant when all this will be realized, and when that time comes California will enter upon a career of prosperity such as was never before witnessed by any people in any age. No other portion of the globe can compare with California in point of natural resources. The richest mines in the world are here supplemented by a climate and soil unequalled for agricultural products, while our rivers and coal mines furnish the power for converting our raw products, at will, into an almost unlimited variety of articles of commercial and domestic utility. We have the money and other facilities needed to reach all these results—all we lack is the enterprise and muscle.

The Wool Product of California.

Through the courtesy of Mr. E. Grizar, of Messrs. E. Grizar & Co., wool brokers of San Francisco, we are able to present our readers with an accurate table of the exports of California wool from 1854 to 1874, inclusive. It will be noted that the table shows a steady increase from the apparently insignificant amount of 175,000 lbs., valued at \$14,000 exported in 1854, to 36,088,701 lbs., valued at \$8,182,000, exported in 1874.

Wool Exported from San Francisco, Cal.

DATE.	POUNDS.	VALUE.
1854.....	175,000	\$ 14,000
1855.....	360,000	36,000
1856.....	600,000	80,000
1857.....	1,100,000	165,000
1858.....	1,428,551	199,969
1859.....	2,378,250	356,738
1860.....	3,055,325	397,198
1861.....	3,721,998	507,297
1862.....	5,990,300	1,668,087
1863.....	5,268,480	1,225,151
1864.....	5,936,670	1,254,778
1865.....	6,549,931	1,334,425
1866.....	4,662,129	897,938
1867.....	7,057,631	1,143,571
1868.....	13,225,181	2,436,594
1869.....	13,747,791	2,370,165
1870.....	19,238,000	3,655,000
1871.....	22,064,638	6,067,772
1872.....	24,578,980	7,400,000
1873.....	29,255,376	6,450,360
1874.....	36,088,701	8,182,000

Lace Leather.

A good lace leather, with which to lace threshing machine belts, as well as for innumerable other purposes, can be manufactured in the following manner: Make a strong infusion of lime water, in which immerse calf or deer skins. They should be taken out and aired every day until the hair can be easily removed. If the skins are dry they must be soaked in water and rubbed until they become as soft as they were when they were taken off the animal. This must be done previous to being put into lime water. After the hair is removed, immerse for a few days in "bran water" (wheat bran); then scrape the skins on both sides until clean, and hang up until partly dry; then oil them on both sides with fish oil (whale oil), and for want of a pair of tanning stocks pound them with a club, or a maul, for an hour or two; roll them up and let them lay a couple of hours; oil and pound them again; hang up and air a short time; then repeat the process of oiling and pounding—the longer and oftener the better; after which hang up and dry by the carefully managed heat of a stove. Then stretch and soften them by drawing them over the edge of a shovel; you will then have a "white leather" that will stop all whining.

A USEFUL TABLE.—The following table, computed from actual experience, will be found very useful in calculating the weight of loads, etc.—or the weight of any of the articles mentioned, in bulk. It shows the weight per cubic foot. All that is necessary, therefore, is to measure the bulk; ascertain the number of cubic feet in it; multiply this by the weight per foot, and divide by 2,000, when you have the weight per ton:

SUBSTANCE.	WEIGHT PER CUBIC FOOT
Cast Iron.....	450 lbs.
Water.....	62½ "
White Pine, seasoned, about.....	39 "
White Oak ".....	52 "
Loose Earth.....	95 "
Common Soil, compact.....	124 "
Clay about.....	136 "
Clay with stones.....	160 "
Brick.....	125 "

HAIR can be turned blonde, or, in other words, killed, by washing in a very weak solution of soda twice a day. We happen to know that two of the leading belles of New York society owe their much-admired golden tresses to this simple recipe. A piece of soda about as big as a small hickory nut to a quart or so of water is the right proportion. Less soda gives the hair a reddish tone. Perhaps this may not be considered strictly useful information? We give it simply as a matter of general interest, but do not advocate any such interference with nature.

PATRONS OF HUSBANDRY.

STATE GRANGE HEADQUARTERS.

Fruit Growers' Associations, and Farmers' Mutual Life Insurance Company, all at No. 6 Leidesdorff street. W. H. BAXTER, State Secretary, at Grangers' Bank, 415 California street, S. F.

To the Stockholders of the California Farmers' Mutual Fire Insurance Association.

NOTICE.—There will be a meeting of the stockholders of this company on Tuesday, June 1st, 1875, at their office, No. 6 Leidesdorff street, San Francisco, for the purpose of increasing the capital stock to Three Hundred Thousand (\$300,000) Dollars. By order of Board of Directors.

W. H. BAXTER, Secretary.

Secretaries will be supplied with a printed list of subscribers for this paper upon sending a list of their offices within the range of their Grange. Also with blank reports, etc., for clubs.

Grange Directory.—A full list of officers of the State Grange, Deputies, names of Councils, Subordinate Granges, Masters and Secretaries will appear in this department on the first Saturday of each month.

The Napa District Council will meet at Yountville on Saturday, April 24th, at 9 o'clock A. M. A full representation from each Grange in the district is earnestly solicited. H. W. HASKELL, Sec'y N. D. C.

The Grange and the Immigrant.

According to indications from certain quarters, the Patrons of Husbandry are to be held accountable for the present unprecedented immigration, and the Order is apparently expected to take at once all these new comers under its wing. As to the accountability, we refuse to accept it; not because we think there is anything to be ashamed of in the matter, for in our opinion the State has great reason to rejoice over this new birth, but we decline to accept the honor in this case, simply because it does not belong to us. It would be a sort of Livingstonian task to attempt to trace this river to its source, or rather its sources, for they are as many as the individuals composing it. A great many impatient social economists pretend to have discovered short cuts to the supposed origin of this wonderful stream, but their notions are as impracticable as are the attempts to control these waters as they enter our country.

It would seem as though the press, in its high sense of duty in regard to caring for these thousands of immigrants, should apply the spurs to the sides of the Masonic, Odd Fellows and other benevolent orders, and endeavor to bring them up to time; but no such efforts are manifested. We do not wish by any means to insinuate that there is any need of these gentle reminders in these quarters, for we believe that they are doing their duty in their own efficient, quiet way. So is the Order of the Patrons of Husbandry. A proper sense of courtesy, or even common propriety, would preclude any comparative display of good works, but it seems quite proper under the present circumstances to declare, as we do without fear of contradiction, that our Order has done its duty both outside and inside the Grange.

But the Granges throughout the land, like the lodges of other orders, have no money to squander upon the extravagant or the willfully idle. Worthy members of the Order will receive proper attention, sympathy and aid; but bums will not be tolerated. If there has been any fault heretofore in this matter it has been on the score of leniency. The Grange in its youthful ardor has, perhaps, been too ready to accept declarations of friendship; and while the Order is putting forth increased efforts for the benefit of the worthy, the situation requires increased vigilance in the direction of false friends. The welfare of the hive demands that all drones be expelled at once.

DEPUTY N. W. GARRETTSON.—The many warm friends of Bro. Garrettson will be pained to know that he has resigned the Secretaryship of the State Grange of Iowa on account of ill health. We hope he has relinquished his arduous duties in time to meet with speedy recuperation. The resolutions of the Executive Committee accepting his resignation expressed sincere regret at the necessity of the withdrawal on the part of the worthy Secretary. Enfeebled, no doubt, by too arduous duties in the cause, the unusually severe winter and spring have told hard upon his health. Illustrative of his yet warm memory of friends here we quote (somewhat in fear of displeasure to him) his private words:

"The genial clime of your coast would, I doubt not, soon rebuild my enfeebled health; and were I a man of means that would warrant it, I should soon seek an asylum on your shores and a reunion in the warm and heart-comforting circles of the California brotherhood. I shall probably visit Colorado about the first of May, and shall spend a month at least in that mountain atmosphere. I go there mainly for purposes of rest and recuperation, but by invitation from the Order, to assist in the establishment of the Pomona Granges in that State."

We hope Bro. G. will not turn back till he has again been welcomed within the gates of the Pacific.

The National Grange and the Texas Pacific Railroad.

The following letter is from Worthy Master Hamilton. It has been called out by the paragraph which appeared in the RURAL two or three weeks since in relation to a call for information in regard to the action of the National Grange with regard to the Texas Pacific railroad. The letter will speak for itself:

GRANOC, April 19th, 1875.

EDITORS RURAL PRESS:—The action of the National Grange at Charleston, in recommending Government aid to the Texas Pacific railroad, has given rise to much comment and unjust criticism. Patrons appear to have taken it for granted that the influence of the National Grange was used to induce Congress to donate large amounts of money and lands to aid in the construction of what is said to be "a monopoly seeking to control the whole carrying trade of the South, and by certain combinations to extort millions of dollars unjustly from the producers of our country."

Such, let me say, Messrs. Editors, was not the case.

The friends of the Texas Pacific, when they came before the National Grange, never asked for anything which might prove injurious—they merely asked the endorsement of the agriculturists of our country to a bill then before Congress, which was intended and well calculated to develop the resources of millions of fertile acres of our territory, open up beautiful homes for thousands of our fellow citizens, check the monopoly already existing in the carrying trade across this continent, between Asia and the cities and seaboard on our Atlantic coast; add to the national population, the national industry and the national wealth; increase the taxable resources of the country, add to its revenues and lessen the public debt. They urged it was a public duty to utilize the enormous national capital that now lies idle in that vast southern region between Texas and the Pacific coast. They pointed to that vast national domain, capable of producing untold quantities of corn, wheat, wine, cotton, wool and stock; and which, from its want of accessibility and distance from market could not be profitably brought under cultivation. This wealth, with the rich mines of gold, silver, lead, copper and coal in Southern Colorado, New Mexico, Arizona, Southern Utah, Nevada and Southern California, was shown to be unavailable to the nation by reason of distance from mercantile centers and cost of transportation.

Justice to the Southern States demanded that they should have the same rights and facilities to develop their material wealth and increase their productions as had been extended to the Middle and Northern States. Their products, cotton, tobacco, rice and sugar, are of great value to the nation, and the Northern and Middle States have a direct interest in everything which has a tendency to stimulate the growth of agricultural products in the South.

Our military commanders, Generals Grant, Sherman, Sheridan, Hancock, Meigs and Ingalls, have all testified that the extension of the railroad from our south-western frontier to the Pacific coast is a military necessity, and that it would substantially end our Indian troubles by the facilities it would give the military to control these wild and savage people.

The bill indorsed by the National Grange and which it recommended to the speedy action of Congress does not ask for one acre of the public domain beyond what may be needed for road-way and stations, nor one dollar as a gift from the public treasury, nor any bonds the principle or interest of which the government was expected to pay—none of these were asked for—but simply that the government would guarantee an interest of six per cent. upon the bonds of the road, to the extent of \$30,000 per mile, agreed that every guard and restriction necessary to prevent extortion or unjust discrimination or fraud of any kind either towards the people or bond-holders should be placed by Congress in the franchise.

The security offered against loss on this guarantee is vast and comprehensive. First, the road surrenders every acre of the valuable lands hitherto obtained. Second, it gives the whole of its earnings for transportation for the government. Third, it gives ten per cent. of the entire gross receipts of the road. Fourth, in default of payment the road itself becomes forfeit. Was better security ever exacted by capitalist?

The propriety and security of this great work was so apparent to the members of the National Grange that the vote in regard to it was almost a unit. The masters from Iowa, Illinois, Missouri and other States, where Patrons have been contending so earnestly against railroad monopolies, were so well satisfied of the benefits and advantages to be derived from opening another great thoroughfare across our country from Atlantic to Pacific shore, and that all necessary guards and restrictions to prevent imposition and fraud would be thrown around it, gave it their hearty support, and not one of them had an idea their action was in the least degree a departure from the principles which should control the action of Grangers, or a violation of the objects and purposes of the Patrons of Husbandry as fully set forth and given to the world in our Platform of Principles.

J. M. HAMILTON.

From the Granges.

Grand Island Grange.

EDITORS PRESS:—Inclosed you will find a list of the officers of this Grange, elected to serve for the year 1875. This was attended to January 16, 1875; I will not bother you with an apology for not sending you notice of this some months ago. If I had you by my side I could perhaps give you a flaming excuse, but when I think this may appear in the Press, it would bother me very much to write an excuse. Farmers are the best people in the world, but they have not learned to write or talk much yet. You must have patience with us a little while and I think we will do better. I cannot speak in very high terms of the workings of our Grange. We have not done half as well as we should have done, but I think we have been improving. Since the 16th of January last we are doing more and better work than we have done for the last year and a half. We number some seventy-five members, enough to make our meetings very interesting if all would attend regularly and take an active part in the work when they come. We have had very little said for the good of the Order since we were organized; not that we are lacking in faith—we all know it is the very thing the farmers need—but how to stand up and tell our neighbors in the Grange how and why these things should be done, is something but very few will try to do. We have sat still so long and listened to others talk for us, that we cannot help feeling a little timid and foolish when we attempt to do what we have always had lawyers or doctors to do for us. But we are all becoming ashamed of this, and will work out as soon as we can. So soon as we can carry out the purposes of the Grange in a few important things, we are safe. We will go on—we will never go back. But I must tell you that at the installation of our new officers we had a most sumptuous harvest feast, gotten up by the sisters. They are good workers when they take hold, and that is at every time and place that they see they can do good. Had any one of them been at the secretary's desk, instead of your humble servant, you would have had this report long since. I have had several plumes from that source for my tardiness in the matter. And now let me say, that for reading matter, your paper—the RURAL PRESS—should be in the hands of every farmer. We will all look after its welfare.

JAMES HEARN.

Grand Island, Colusa county, April 10, 1875.

El Monte Grange.

EDITORS PRESS:—At our last meeting in March we had one of our delightful harvest feasts, and afterwards graduated a class of twelve, and we have one of seven in hand for the month of April, which will raise our numbers to 52. On that occasion we had the pleasure of the company of Worthy Master Currier and several members of Spadra Grange. We all enjoyed ourselves very much, and look forward with increased interest to our next. We have already given two splendid dinners, to which we invited everybody and his wife; so we thought we would have this one only for Grangers. Our Grange is in a prosperous condition. It is composed of wide awake farmers, and of course flourishes. We have a \$200 melodeon paid for, and are negotiating for a hall. The crops in this particular locality will be good this year; the early fruit, however, such as peaches, are cut off by the recent cold snap. Our land produces without irrigation, and of course crops do not fail. I am doing all I can to increase the circulation of the PACIFIC RURAL PRESS. I give the Grange copy as it arrives to different persons, who are not subscribers, in hopes that they may become interested and send up their names with the cash. I frequently find an article in it which I feel is alone worth a year's subscription.

A. H. HOYT, Sec'y El Monte Grange, No. 43. April 10, 1875.

Petaluma Grange.

EDITORS PRESS:—Petaluma Grange was well attended on the 10th inst. We anticipated beating the State for a large class in the first degree, but for various reasons we only had seventeen ready; there were thirty applications. Ten more shares are taken in the Business Association, so that our Grangers now have 200 shares.

Several persons wish to see the song, "Woman in the Grange," published again in the Press, they like it very much; you will find it in No. 6, vol. ix., p. 85. I am going to try and look after some subscribers soon, if I can get time.

F. PARKER, Sec'y.

Petaluma, Cal., April 12, 1875.

[Such indications of the satisfaction given by the contents of our paper cannot be otherwise than gratifying; but the fact that fresh matter, of equal merit, is waiting its turn for admission to the columns of the RURAL PRESS, prevents us from complying with requests like the above.—EDS. PRESS.]

Vacaville Grange.

EDITORS PRESS:—In regard to the Grange, it is prospering well, our new officers are doing splendidly, all are in good spirits over the good work it is doing, and sincerely hope it will still continue to do good. At some future time I shall write a more lengthy letter when I have more to write about.

ELIZA.

Vacaville, April 12, 1875.

Linn Valley Grange No. 581, Kenton, Ohio.

EDITORS PRESS:—Having the privilege of reading your valuable paper, which comes into my hands from one of your subscribers in our city, I deem it but fair and just to contribute a few scattering thoughts to your valuable and instructive journal. The tone of your paper on the subject of Patrons of Husbandry suits me thoroughly. What a great satisfaction to the Patrons of Ohio, and all other States, to know what success our brothers and sisters are meeting with in California. I assure you, Patrons, your unflinching determination in moving forward, through your late trials in the Morgan & Sons failure in wheat shipments has caused many a Patron in Ohio to praise you in the highest terms. Our cause is just, and must and will prevail. Now Patrons, I will give you as near as practicable the number of subordinate Granges in Ohio. On the 8th of February, 1875, total, 1,895; membership to same date, 65,000. In Hardin county, Ohio, we have 23 subordinate Granges, with an average of about 85 to the Grange; Linn Valley Grange has a membership of 103, and still they come, which is the largest in the county. Now we have things pretty near our own way. We have a dry goods store, hardware store, grocery, millinery store, shoe shop and blacksmith shop. All trade with us at Grange prices, which has proven entirely satisfactory to all concerned. I expect to start to visit your salubrious climate by the middle of April, with the expectation of becoming a permanent resident if I can find a good location, and while sojourning with you I hope to become personally acquainted with your honor, Mr. Editor, and many of my Brother and Sister Patrons. With this I will close, and hoping this will be allowed space in your valuable paper,

I remain yours, Fraternally, A. K. RABEY.

Kenton, March 29th, 1875.

Potter Valley Grange.

EDITORS PRESS:—The following resolutions were passed by Potter Valley Grange, No. 115, at our last regular meeting:

Resolved, That we heartily endorse the sentiment expressed in the resolution passed by Stockton Grange, No. 70, P. of H. (in their meeting of March 6th) in regard to the name "Grange" or "Patrons of Husbandry," being used by any corporations or individuals—connected with the Order or not—for the purpose of carrying out any private scheme or enterprise, is contrary to the spirit and principles of our Order, and should not be countenanced in any manner by members of the Order.

Resolved, That a copy of these resolutions be sent to the PACIFIC RURAL PRESS for publication.

MRS. A. H. SLINGERLAND, Sec'y.

Potter Valley, April 13, 1875.

Solano County Council.

EDITORS PRESS:—At a regular meeting of the Solano County Council, P. of H., held in Suisun City, April 13th, 1875, the following officers were elected for the ensuing year: John McMullin, M.; Ed. Frisbie, O.; Geo. W. Frazier, L.; O. Bingham, C.; John M. Jones, Sec'y; E. C. Dozier, S.; Peter Long, A. S.; Mrs. R. B. Cannon, L. A. S. and James McCrory, G. K.

The next regular meeting of the Council will be held in this place the 2d Tuesday in July at 10 o'clock A. M.

J. M. JONES.

Dated Suisun City, Solano co., April 16, 1875.

By THEIR FRUITS, ETC.—The following gratifying statement has just been placed in our hands, and as we consider it a matter that best explains itself we publish it without comment:

CLARKSVILLE, April 19, 1875.

W. H. BAXTER, Esq.,

Secretary State Grange, Cal.

DEAR SIR:—Enclosed please find check for \$56.75, contributed by Clarksville Grange, 149, the "Cattle Association" and residents of this place, for the relief of Kansas and Nebraska sufferers. Yours, fraternally,

ISAAC MALTBY, Sec'y.

The above received, together with donations from Pomo Grange, No. 216, and La Honda Grange, No. 222, and forwarded as per request.

W. H. BAXTER, Sec'y.

State Grange, Cal.

SUIT AGAINST THE GRANGERS' BANK.—Sut has been instituted in the Fourth District Court by Charles H. Aitken against the Grangers' Bank of California. The plaintiff avers that prior to the 12th day of November, 1874, E. S. Baldwin and C. Benabo shipped through the agency of Morgan's Sons 550½ tons of wheat to Europe, with instructions to sell it. Afterwards Baldwin and Benabo assigned to the plaintiff all their right and interest in the aforesaid wheat. That in due course of time the wheat arrived in Europe and was sold, realizing over and above all charges \$16,000. Before the arrival of the wheat in Europe Morgan's Sons were notified of the change in the ownership, but by the orders of the said Morgan's Sons the proceeds of the sale were transmitted to the defendant in this suit for the owner of said wheat. That by virtue thereof the defendant became indebted to the plaintiff in the sum of \$16,000, but refuses to make payment, wherefore the Court is requested to award judgment in the sum of \$16,000, together with interest and costs.

TEMESCAL GRANGE.—By invitation of W. M. Webster Deputy Baxter conferred the fourth degree on six brothers and two sisters on Saturday last. Brother Hellar, Deputy for Alameda county, presented instructions and advice. The Committee and Grange at large acquitted themselves well at the harvest feast. A committee was appointed to confer with other Granges concerning the advisability of holding a picnic this season.

The Coming Immigration.

Meeting of Citizens.

Pursuant to a circular issued in the interest of the great number of immigrants now coming to this coast, a large number of our prominent merchants, capitalists and citizens generally assembled on Monday afternoon last at the rooms of the Grange headquarters on Leidesdorff street. Mayor Otis was called to the chair, and in an appropriate address stated the object of the meeting to be to devise ways and provide means to aid new comers to California, by furnishing them all available information as to the procurement of homes and employment here.

A. W. Thompson was elected Secretary. Information as to the present and prospective immigration to this State was given by Governor Stanford, I. Friedlander, Charles Crocker, A. W. Thompson, J. P. H. Wentworth, Mr. J. Earl, J. Ross Browne, Esq., and others. The speakers all agreed as to the importance and necessity of taking some steps to provide the information alluded to by Mr. Otis in his opening remarks.

As a result of the conference a committee of five were appointed by the Chair to solicit subscriptions and otherwise raise funds to carry out the purposes of the meeting—I. Friedlander, C. J. Cressey, T. H. Selby, C. Adolphe Low and W. F. Babcock.

Mayor Otis was requested to act in place of Mr. Babcock, as he is about to leave for the East.

The Committee were authorized and directed to make such disposal of the funds raised as to them might appear to be most conducive to the object sought, either by acting in concert with the Department of Immigration of Patrons of Husbandry, under the charge of Mr. Earl, or otherwise.

On motion of General Colton the Committee was requested to prepare and cause to be printed an address to immigrants, giving to them all available information as to homes and employment in California and due encouragement to come here. And that they cause the address to be distributed on the various railroads, steamers and other lines of travel toward California.

On motion of Mr. Crocker the Committee was requested to open communication with and procure, so far as possible, the aid of societies for the encouragement of immigration in Sacramento, Stockton and other cities of California.

The Committee was requested to prepare a circular to send to the several Granges and also to the editors in the agricultural sections of the State, soliciting detailed statements of all matters which would be likely to be of interest and advantage to persons desirous of making their homes or seeking employment in California.

California Grangers in New York.

Among the dispatches from New York, April 20, we find the following:

Past Master J. W. A. Wright, Grand Lecturer of the State Grange of California, and Grand Lecturer Thompson, were entertained to-day by the Knickerbocker Grange. Among the speakers were worthy Grand Master Moore. Grand Lecturer Thompson said: "I see before me a brother and a sister who became Grangers at the same time that I did, in 1866, when there were only twenty Granges in the United States. A connection with the infant Order was almost disgraceful. American farmers until recently have ignored the principle that is moving the world, the principle of association. Their individualism was the cause of their subjection to almost every other interest. Six years ago no manufacturers dealt with us directly. No elevators or warehouses were owned by us, and no insurance was controlled by us. Now in one State alone there are thirty-one insurance companies, and more than half that number of elevators and warehouses in Iowa and Wisconsin are under our control. Furthermore, we have agents in every section of the country, to whom we ship our products, and from whom we receive prices forty or fifty per cent. higher than what we formerly received from local buyers. In consequence of the fairness of our treatment by these agents, who are bound by ties of brotherhood and heavy money bonds, the Patrons of Husbandry saved five million dollars in 1873, twelve millions in 1874, and according to present indications will save at least twenty millions in 1875.

THE OHIO STATE GRANGE ON THE TEXAS PACIFIC RAILROAD QUESTION.—The State Grange of Ohio, at its session, March 12th, passed the following resolution in relation to the action of the National Grange on the Texas Pacific railroad question:

Resolved, That we can in no wise sanction the course of the National Grange at its last meeting at Charleston, so far as it relates to the adoption of the resolution recommending Congress to grant government aid to the Texas Pacific railway; that this action on its part is in violation of the fifth section of our National declaration of principles; and unwise, tending to foster corruption and monopolies upon which we had set our seal of condemnation.

This resolution drew out very lengthy discussion and considerable feeling.

A GRANGER, according to Loudon, is a tenant who pays half the produce to the landlord. "By Granges, or renting land, a morte fruit, is understood that the proprietor takes half of all the grain and fruit, half the produce, or increase of the cows, half the eggs, and in short, half of everything which is productive." This was in the Duchy of Savoy, Switzerland. A Granger, in these later days, is a presumed free holder, who paid from half to three-quarters of his products to transporter and trader, to get them into the reach of the consumer, and becoming dissatisfied with the depleting results, has joined a mutual aid society, called the Patrons of Husbandry.—*Exchange*.

SOME PERSONS think the Grange is an old folks' organization. They have sons and daughters old enough to join, but they stay out in the cold, simply because they are uninvited, or their folks are too stingy to pay the entrance fee. The Grange needs the young and warm blood; and if parents wish to keep their boys and girls on the farm, there is nothing that will so cheaply and quickly interest them in agriculture as a union with their neighbors in the Grange.—*New Jersey Granger*.

GRANGES in Wisconsin have on hand \$250,000 towards a State Agricultural Improvement Society. They have already established forty-one co-operative associations for selling goods and manufacturing, and twenty-nine insurance companies, all in a flourishing condition and representing capital to the amount of \$4,000,000.

OWOSSO GRANGE, Michigan, has procured and hung up a blackboard which it intends to use as an advertising medium for the sale and purchase of such things as the members may have to sell or want to buy, for the benefit of those wanting farm help and those who want work and for those who desire to borrow or loan money.

THE EXECUTIVE COMMITTEE of the State Grange adjourned its late meeting to May 4th. A meeting of the Immigration Committee is called for May 11th.

It is estimated that at the various mills between Noyo and the mouth of Russian river, a distance of 110 miles, 90,000,000 feet of lumber will be sawed this year.

THE *Herald* says that the fruit crop in and around Auburn is little injured—the grapes not at all.

HORTICULTURE.

Things to be Noticed in Town Gardens.

The recent and sudden amelioration of the weather causes the floral treasures of our garden to hasten into bloom. Roses are now present in variety; lilacs send up their purple plumes; spiræas will soon be succeeded by syringas and hawthorns. Now is the time to observe the effects of injudicious planting and over-crowding. Notice how much prettier a little court-yard is with only low growing borders, with a few bands of constant color within the edgings. An edging of Frear stone is delightfully toned against a border of purple oxalis; or a brick edging with golden feather. Purple oxalis will bear the shade, and its tiny roots love to cling to brick or stone work.

Where there is a row of bulbs next the outer ribbon there will be space after these have died down. If a little band of blue lobelia has been planted early, this will quite cover the bulbs in midsummer, and not injure them in the least. Inside the lobelia a close row of pinks, or the deepest scarlet geraniums, are sure to have a pleasing effect, provided they are shorn or pinched into an even height.

I think the readers of the PRESS will agree with me in thinking that flowers lose half their beauty by being forced into careless and disagreeable associations. Pansies and nasturtiums ought never to see each other. Indeed, I question whether pansies should ever see anything but grass. Cut an oval in the turf, and put only deep purple pansies in it, and note the effect. Put the pied and yellow ones into borders, if you will, but keep the imperial purples by themselves.

A splendid plant for ribbonizing is scarlet crassula in ground which faces the sun. The Crassulaceæ are sun lovers all, and, unlike the scarlet sage, are not put out by our winds. There is a tender glance, too, in crassula's eye, which the salvia and the scarlet lobelia lack. It belongs to the architectural plants. The crassula will bear pinching in when not setting its blooms. Bouvardias, white and scarlet, are pretty for the inner ribbon of a small lot.

Who will bring out, here, the riches of color that are so highly appreciated abroad in our California plants?

A friend wrote me from England last year that she saw a bed of blue nemophila (baby's eyes) twelve feet wide, and nearly half a mile long, in an English park garden. Our pretty

lupines are grown there for their usefulness in furnishing these color repasts; and nothing is complete without a glow of our *Eschscholtzia* (Cal. poppy), which our gardeners persist in neglecting.

Do not fail to notice the hawthorns when they blow. Mr. Nolan has a very fine crimson—there are beautiful specimens of both that and the white at Mr. Jonathan Hunt's. Inquire for Portugal laurels if you do not know them and visit any of the princely residences in the country, for a Portugal laurel, standing by itself on a lawn, cannot be excelled.

A walk up Jackson street, in the city of Oakland, will show a revival of taste in that delightful neighborhood. The Monterey hedges have disappeared, to be replaced by stone terraces and richest turf; thus practically recognizing the principle that beauty should be free to all who are able to appreciate it. An air of lightness and grace has been given by this change which is very pleasing. A diversity of planting would make that street a continuous park, which, with the gleam of water beyond, and the background of hills, would leave little to be desired as a rural residence.

The low fences—which, recently adopted in Fruitvale neighborhood, have set an excellent example—are another great improvement. Ornamental posts, with rests for vases and statues, connected by one or more stout iron rods, as divisions between different proprietors, would add still more to the expression of openness and breadth. For variety, a coping of stone not more than a foot or eighteen inches high, might be used. If two neighbors would co-operate in placing a fountain in a suitable place between their houses, leaving out all dividing lines, it would be a charming innovation. Many such improvements will be suggested in the laying out of new and more spacious residences in the suburbs of our two cities. J. C. C.

AGRICULTURAL NOTES.

AMADOR.

LOSS NOT AS GREAT AS ANTICIPATED.—The *Amador Ledger* thinks that the loss of fruit, by the late heavy frosts, will not be near so great as at first anticipated. The peach crop, however, will be almost a total failure, and other varieties partially so; but apples, plums and a number of other kinds will be up to the average.

BUTTE.

GRAIN PROSPECTS.—Butte *Record*, April 17: From every quarter comes the depressing news that nothing now can prevent at least a partial failure of the grain crop. In some localities it is so dead and shrivelled that it could be fired. The black lands appear to have suffered least, the grain looking splendidly, and a fair crop will be realized, even without more rain.

COLUSA.

COTTON RAISING.—The *Sun* has been distributing cotton seed among the farmers of Colusa. It says: There has been rain enough now to grow cotton on anything like good land, and it is a more certain crop than wheat, as it does not need the rain to perfect it while growing. We would like to see a large quantity planted this season—enough at any rate to set the matter of the practicability of its cultivation set at rest. J. P. Rathbun will plant about thirty acres on Freshwater, about eight miles west of Colusa, which will test the plain land as far as one crop can do it, but it is impossible to give any crop a fair test with one or two fields of it.

CONTRA COSTA.

FRUIT PROSPECTS.—The *Gazette* of the 17th says: The fruit trees at this place were entirely untouched by the frost, a piece of good fortune probably due to the proximity of the bay. In a walk through the orchard and grounds of the Fish brothers last Saturday, we failed to find evidence of the slightest frost touch on any of the young fruit or the delicate plants and flowers—even on the young orange and lemon trees of last year's seed, recently transplanted in open ground. Our own little fruit plantation, on the opposite or west side of the village, also wholly escaped injury; and we learn from Dr. Strentzel that the injury at the Alhambra grounds, two and a half miles inland, was but slight. But throughout the Pacheco, San Ramon and Taylor valleys, so far as we have heard or observed, the early set and blossomed fruit was generally blighted. In a ride out in the San Ramon and Sycamore valleys last Sunday, the fresh appearance of blossoms on many of the trees led us to hope that they had not been seriously touched by the frost, but in a call at the house of Supervisor Sherburne, we were shown by that gentleman that the germ in nearly all of these fresh looking blossoms, and in the unopened buds, was black and dead; and examinations at other places disclosed only rarely a live germ. This discovery of an occasional vital germ among so many blighted is assurance that most of the trees will yet yield a little fruit this season, which is likely to be of superior size and flavor.

MARIN.

ABUNDANT HARVEST ANTICIPATED.—The *Petaluma Argus* understands that the crops in Tomales are coming on finely, and an abundant harvest is confidently anticipated. Many farmers are engaged in preparing their grounds for planting potatoes; a larger area than usual will be planted this year.

MERCED.

IRRIGATION WANTED.—The *Merced Argus*, like other papers of the valley, urges irriga-

tion as the only insurer of crops. It says, however, in its issue of the 17th inst.: Up to the present time the condition of the wheat crops has been excellent, and should sufficient rain fall during the next week to saturate the ground to the depth of a few inches there will yet be a good yield, though there are many who have lost confidence and predict but a small return for the labor and capital invested by farmers in the cultivation of the soil.

ANOTHER REPORT.—In contradiction to the above the *Express* of the same date says: We are loth to confess that the prospects for a large yield are not so flattering as they were two weeks since. Volunteer grain will yield almost nothing unless we should have rain soon; and that sowed on summer fallowed land, while it will yield something, will not produce a fair average.

MONTEREY.

ENCOURAGING.—This is what the *Democrat* of April 17th says: The season appears to be developing itself, and it now seems reasonably certain that in the main crops in this valley will be fair. Though there has been no rain to speak of for a long time, and frosts have been frequent and severe, the grain generally has maintained a good color, showing continuously great abundance of vitality. Of late, fogs have been prevalent at night, and the daytime has been cool, with little wind, being, from the moisture thus supplied, an atmospheric condition very nearly as beneficial as actual showers would be. Upon the whole, therefore, crop prospects are cheering at present.

NAPA.

PROSPECT OF A LARGE YIELD.—The St. Helena correspondent of the *Napa Reporter* writes: The frost of last week, which was thought so destructive to fruit everywhere, wrought but slight, if any, injury to the grapevines here. Upon close inspection it is ascertained that there is still every prospect of a large yield, and that, too, of a superior quality. Untold damage was avoided by the precaution taken by growers to prune late.

THE PEACH CROP.—The *Reporter* of the 17th inst. says: The peach crop of Napa county has, as far as we can learn from good authority, been almost totally destroyed by frost. The cherries and plums will probably yield half a crop. We get our information from W. W. Smith, of Brown's Valley Nursery, who has been investigating the matter for the satisfaction of the Fruit Growers' Association.

SANTA CLARA.

EFFECT OF THE DROUGHT.—The *Gilroy Advocate* of the 17th says: A few miles this side of San Jose the grain is past recovery. The same is true in the region of Hollister, but that part of the Santa Clara Valley in which Gilroy is situated is, as usual, highly favored. We should be glad to see more rain, but if we have no more the grain which was sown early will yield an average harvest.

SANTA CRUZ.

LOOKING WELL.—The new paper, the *Santa Cruz Local Item*, of the 17th inst. says: Both early and late sown grain is looking remarkably well at and about this point and through the Pajaro Valley. Rain of course is needed, and would materially assist the growing crops, but the frequent fogs which visit some portions of this county, render a good crop almost always certain. The fruit crop also bids fair to be abundant, if later frosts do not nip the buds and blossoms. Thus far but slight damage has been done by frost, and grain, fruit and flowers are thriving splendidly.

SONOMA.

DAMAGE BY THE FROST.—*Petaluma Argus* of the 17th inst. reports the following:

John Shearer, whose place is seven miles from this city, near the Valley House, informs us that the late frosts have done little damage to the fruit in his neighborhood. Grain crops are very promising.

We are informed that the frosts of the early part of last week did much injury to peaches, almonds, cherries and plums in Sonoma Valley. Grapes suffered but little, which is attributed to their having been pruned later in the season than heretofore.

TULARE.

FLAX.—From the *Times*, 17th inst: We were shown some very fine specimens of flax this week, that grew on the ranch of M. E. Churcher, on the plains north of Visalia. He says that it has grown where surrounding wheat fields have made almost an entire failure, and bids fair to make a moderate crop. From the best information we can gather, flax is adapted to this country, and can be made a very profitable crop.

PLANTING SHADE TREES.—The *Democrat* of 17th inst. says: The owners of the Cotate ranch, between this place and Petaluma, fully appreciate the benefits of planting shade trees. On that portion of their large estate lying in the plain destitute of trees, they have set out twelve park elms, fifteen maples, twelve South Carolina poplars, twelve acacias and fifty black walnuts. On the hill land upon which there are no native trees, they have set out in groves 125 Monterey cypresses, seventy-five pines and seventy-five blue gums, with the view of providing shade in summer and shelter in winter for their sheep on hill ranges.

YOLO.

NOT SO BAD.—From the *Democrat* of 16th: Since Wednesday the north wind has ceased, and we are getting Sierra breezes with dewy nights. Rain is badly needed in some localities, while in others it is not particularly needed.



In the Nest.

Gather them close to your loving heart—
Cradle them on your breast;
They will soon enough leave your brooding care—
Soon enough mount youth's topmost stair—
Little ones in the nest.

First not that the children's hearts are gay,
That the restless feet will run;
There may come a time in the by-and-by
When you'll sit in your lonely room and sigh
For a sound of childish fun.

When you'll long for the repetition sweet,
That sounded through each room
Of "mother," "mother," the dear love calls
That will echo long in the silent halls,
And add to their stately gloom.

There may come a time when you'll long to hear
The eager boyish tread,
The tuneless whistle, the clear shrill shout,
The busy bustling in and out,
And the pattering overhead.

When the boys and girls are all grown up,
And scattered far and wide,
Or gone to that beautiful golden shore
Where sickness and death come never more,
You will miss them from your side.

Then gather them close to your loving heart—
Cradle them on your breast;
They will soon enough leave your brooding care—
Soon enough mount youth's topmost stair—
Little ones in the nest.

Farm House Chat.

[By MARY MOUNTAIN.]

In the flush of astonishment that followed the appearance of

His Letter,

I rashly promised that the Story of Discontent should be continued this week, and the husband of Flora allowed to "rise and explain."

It seems the right thing to be done; and yet how can I tell whether this response comes from the right woman's husband?

He seems perfectly satisfied, however, on the question of identity; and the gentle reader who has become interested in the troubles of Flora may perhaps be justified in transferring a share of sympathy to the other side of the house.

But public and personal "statements," pro and con, of domestic affairs, are not exactly to my taste; and when once I have allowed this quiet man to have his quiet say, I shall "never do so any more."

Unless, well, unless some other long-suffering "partner" shall show as good cause for speaking out as my unknown correspondent, who writes as follows:

"Mrs. MOUNTAIN—I don't generally cry out when I'm hurt, but here is the RURAL PRESS & Wife Martha has got a Letter in it and Flora, but its sure enough Martha because about the Canary Bird & me being an old man quiet & so forth. Well she did ask for it, and I said if she would look After the Chickens a spell most likely shade turn inter Canaries, & I ment it so to be for her to have the singing Bird she wanted, but she scord and dispised the Chickings. If ther was anny breeze about it I forgot it, & I thot she forgot all about it long ago.

The other little fixins she shall have em righte away, but a Man dont allways see his way clear. Before me & Martha married I told Her all about the Mortgage and how that would have to be lifted first & we mite have a Spell of hard work.

If she forgot it a man dont want to bee digin such troubles at his wife all the time & she has Brothers of her own but is a Spunky little Piece thats certin.

Then I come in over tired and not over Patient & the duse of it seems to be after a man speaks a hasty wurd it dont seem easy to take it back & so it goes.

It is true that wife is fond of reading & I dont care for Her Kind and she dont care for my Kind & a big amount of hard work is not frendly to much reading. Her Kind was near being the Death of little tot one day for the poor little tuing fell in a pale of Water & if I haint happened along just that minet but I got her ont Alive and for once Martha dropped her story Book in a hurry.

After a while I went in to see how baby got along and there was Martha berid in her Story Book again and I begun to wonder what it could be like to make a Woman forget her babies so easy. When she was getting supper I looked it over & it was its title

R d s a R o e W a s S h e.

Now I cant make no sense out of that but Martha is smart and often says how she wont read no trash.

Most likely I'm too old to sute Her but she knew that from the start & I told her to think it over if she could be happy with me so I old

& working so hard. Here is home and here is the children & what can a man do but try to keep things going & there dont seem much chance to make life run easy. Ive been thinking it all over since I red that letter of Hers to Mrs. Anthony.

The mortgage is about paid up & she can have the little fancy fixins to trim round the Rooms. Did not think she cared so much & about the flowers perhaps I grumbled at them when I had to wate so long for my Dinners.

Its heavy on a Man to write him np for the Papers & faze Play is the word.

If you think it will do any good & keep the naibors wives from writing up thare husbands becaus every Body has plenty of faults & enough to be sorry for. But you can put this in the Paper if you think it will do anny good. It mite make things even & Martha & me get along better.

Yours Respectfully,

THE QUIET OLD MAN.

P. S. Fix it over & whittle it down if you wanto. I aint much use to writing long Letters.

"In Those Days There Were Giants."

[Written for the Press by Mrs. C. I. H. NICHOLS.]

In No. 2 of that admirable compendium of information for those seeking homes on this coast, the *Pacific States Industrial Guide*, I find an article under the heading, "Growth of Man," in which the writer says, "Observations regarding the rate of the growth of man have determined the following facts." He then states as one of these "facts," that "the size attained at eight years of age is half that which it is to become when full grown."

Prompted by curiosity and a lurking misbelief, I measured two little girls who were standing by my side, the one seven, the other nine years of age, neither of them of more than ordinary size. Deducting two inches (the growth of a year, as stated by the writer) from the height of the eldest, and adding two to the height of the youngest, I found that when full grown the youngest would be nine feet, the eldest nine feet and one inch!

It is all very well for forest trees, or squashes, potatoes and other vegetable growths, that can be kept outside or buried under fodder, but for boys and girls, that must be housed and lodged and clothed, a mammoth growth is quite another thing. And Eastern people who have come to believe in our unwieldy beets and cabbages, as evidencing the exhaustless resources of our soil and climate, may well hesitate about emigrating to a country where boys and girls are liable to attain to such marvellous growth. For the article not being credited to any other section of the world, must be accepted as part and parcel of the information given to guide emigration to the Pacific States.

I think most of our eight years old children will be found to measure about four and one-half feet in height, but beyond six feet, or six feet three inches, I am quite sure the "growth of man" has made little advance, even in California.

"Size," in the article quoted, cannot be confined to height alone. Bulk or weight should form an important factor in the calculation.—Eds. PRESS.]

The Stump Fence.

John Harnett and Susan Day were in love with each other, so all the neighbors said. John was just home from college, and considered himself a little ahead of the rest of the young fellows of the town. He was more stylish in the cut of his coat, wore a tall hat and gloves and kept his boots well blacked in spite of the country mud and dust. Some of the plainer fellows, jealous of him no doubt, said that he carried a rag in his coat-tail pocket to dust off his boots in the churchyard Sundays before walking up the church aisle.

If he did Susan Day was partly to blame for it, for her father's pew was opposite the Harnett pew, and though her eyes were fastened intently upon the hymn-book, the moment she was conscious of his presence, she managed somehow to gather in every point of detail during the sermon and showed an evident approval of his *tout ensemble* when, the benediction pronounced, they met—accidentally, of course—in the aisle and walked out of church together.

But if Susan approved, old Farmer Day, who sat in the pew corner, and used his eyes as well, did not. He had no patience with these college learned young men, who might have Greek and Latin and such rubbish in their heads, but knew nothing of plain, practical farming and money making. "It's the fools that are sent to college," he was accustomed to say; "the wise ones stay at home."

John had the vanity to consider himself an all-conquering hero among the maidens of Mentonville, and with some reason. He was sure he could have any one of them for the asking, so he made love to Susan Day, the loveliest of them all, without much question in his mind of anything but smooth sailing into Susan's heart, and eventually into a part of Farmer Day's snug property.

John was an only child. His father had died while he was yet a lad, and left him with some little property in his mother's care; and she, a rather weak woman, doting upon the boy, had done her best to spoil him. She had, however, given him a good education so far as book knowledge goes. They lived upon a small

farm adjoining Farmer Day's, and, as you may suppose, the widow's land was not tilled on strictly scientific principles. It was an especial eyesore to Mr. Day; he hated anything like shiftlessness near him.

Susan was his youngest daughter, his especial pride and pet, the brightest, gayest girl in town. She was full of energy and character, with a great fondness for outdoor life, and glad at any time to accompany her father and brothers over the farm, or in the wagon to mill, or to the next town where most of the trading was done. She could drive the team herself, too, and thought nothing of going out into the pasture, catching the colt, throwing the saddle upon its back, and away for a wild race over the hills.

And yet she was not in the least unwomanly. You would be sure of that, looking into her soft dark eyes and at the tempting curves of her sweet mouth. She only filled herself so full of health, and happiness, and magnetism by this kind of life, that many another young man beside John found her dangerously attractive, and would have enjoyed a good knock-down fight with him because she gave his jannity ways the preference.

But even he could reach only a certain point in her affections. To all his pleadings she would make answer: "I fear my father is not willing I should marry you, and until you gain his consent I cannot be your wife."

"But what has your father against me? There isn't another man in town that would treat me so, nor girl either," he added, ruefully.

"Well then I wouldn't be treated so," answering the last part of his speech to avoid the first; "there are plenty of other girls who like you and will marry you." But it was this very treatment that held him to her, according to the perverse spirit that dwells in man and makes him follow that most eagerly which he is the least likely to obtain.

Farmer Day was in his potato field next morning when he saw young Harnett climbing the fence and coming toward him. Now, as I said before, the old gentleman had eyes and knew pretty well what was going on, although Susan was very reticent upon the subject, and he suspected what John was coming for.

He quickly made up his mind. I will not say no to him, he thought but, I will give him a job to do, that will either send him off or prove him of better stuff than I think.

He was hoeing diligently when John said "Good morning," and stopped only long enough to answer the greeting. John kept by his side down one row and up another, remarking upon the weather, the crops, and even last Sunday's sermon, although in his desperation he could not remember one word of it, and still the old man hoed on.

At last the piece was finished, and the farmer stopped to wipe the perspiration from his face. John seized the opportunity, and with a very red face and stammering tongue made known his errand. If the farmer had any recollection of his own experience of this kind, he should have had pity upon the poor fellow, but no feeling showed itself in his face as he slowly drew on his coat, and quietly proposed a walk across the fields. Full of wonderment John walked with him, glad the ice was broken, but with a certain foreboding as to what the answer would be. The farmer said nothing upon the subject at issue, but pointed out with commendable pride his corn and grain and stock, all in prime order, and conversed on the methods of farming and the experiments he had tried, until they came at last to a large meadow, level and smooth, enclosed upon its four sides by a magnificent stump fence.

"Do you see that fence, young man?" he said. "Well, I did all that myself. It is the best thing of its kind in the country, and can't be beat. When you make one equally good around the same amount of land you shall marry my daughter, but not before. Good morning, sir!" and the old man trudged back to his work, leaving the young man alone in the sunshine, with a wrath in his heart that for a while completely shut out the ache that was coming there.

"The old fool! that is his way of getting rid of me," he exclaimed at last; "but he won't succeed, though, for I'm made of better stuff than he thinks for."

He walked excitedly along the field, closely examining the work of the fence. The stumps were all of oak, cut of the same size and length, and laid upon their sides, and the roots so closely interwoven that hardly a squirrel could crawl through. It required a giant's strength, it seemed to him, to do it at all; but he did not doubt the farmer's word that it was the work of his hands.

He looked at his own hands, white and delicate, with a broad ring upon the little finger. He felt of the muscles of his arm, soft and flabby as a woman's, almost. What could he do at such work as that? I must confess it, he sat down upon one of the stumps and cried.

I think mothers are too apt to forget the fact that their sons must some day bear the burdens of life, and that it is better to train them to bear it, not by putting unnecessary burdens upon their young childhood—God forgive us for doing that—but by teaching them to meet bravely the troubles that must be met.

A great disappointment had come upon him, and the ache had begun with such strength that it completely shut out the possibility that still lay before him of gaining his love.

But by-and-by he saw a white sun bonnet and a pink dress coming over the field toward him, and he had barely time to dry his eyes and stow away his pocket handkerchief

before Susan was at his side. Of course she had espied the two men together in the potato field, and had watched every movement with love's anxiety; and when her father returned alone and John stayed away from her, she guessed the result. Taking her sun bonnet she stole away by the back door and found him here. She sat down by his side and listened to John's statement of matters. After he had finished she said, quietly, "Well, you can do it, John, if you will."

"I thought so, too, at first, Snsie; but you don't realize how hard a thing it is to do."

"Yes, I do; many and many a day I have watched him at this very work, and helped him too; and if he can do it you can."

"But he is strong and muscular, and used to such work."

"I think there is just where the trouble lies with you, dear John; a man is respected for his strength physically, as well as intellectually and morally, and this is something more than a careless way of dismissing you on my father's part. He gives you a chance still."

John did not answer, but arose and walked a little way off and stood leaning against a tree, with folded arms. Susan's words had struck home, and for the first time in his life he saw clearly wherein he was lacking. He saw his weakness, and then a strong inspiration came down upon him of what he was yet capable of doing, and he felt his strength. It was like a new birth.

He came back with swift strides to Susan, who had sat sorrowfully watching him, for she had the heart-ache, too, and seizing her two hands in his, bent over her with flushed face me Susie, until, I do this thing?"

and eager eyes and asked, "Will you wait for

"Yes, John, ten years if you wish."

"Not so long as that, my darling; but, God helping me, I will be worthy of you yet."

He gathered her in his arms, kissed her again and again, on lip and cheek and brow, whispered "Good-bye," and went away.

The next Sabbath the good people of Men-

tonville missed their accustomed sensation at the commencement of service, and on inquiry as to where John Harnett was, learned that he had gone West.

But three years thereafter a stranger walked up the aisle; a not very powerfully built man, but with frame well knit, sinewy and strong; a broad, full chest, brown hands that had evidently been accustomed to labor, and a fine, intelligent, manly face, that made you feel at once that there was strength and purpose there. He took the seat that John Harnett used to occupy, and glanced across the aisle to Farmer Day's pew. Susan was there, more mature and womanly, but none the less lovely, and as their eyes met he saw that her quick love had recognized him.

Old Farmer Day seemed much disturbed during the sermon; he put on his spectacles twice and peered sharply at him before he made up his mind that this man was indeed John Harnett.

There was more respect than he was accustomed to show even strangers, as he shook hands with him after church. John said quietly:

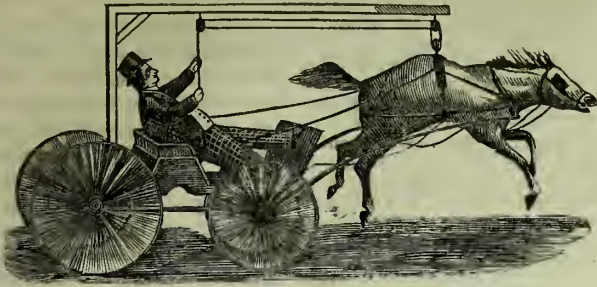
"I have a stump fence around my farm in Ohio, that I shall be proud to show you, Mr. Day."

"I do not doubt it. I do not doubt it, Mr. Harnett," said the old man, warmly; "I am too old to go and see, but I take your word for it, and there is my daughter if you still wish to marry her."

If you wish to see that fence you can do so by getting off the train at Harnettville, Ohio. The place is not down in geographies as noted for its stump fences, but it has one very nice one belonging to Judge Harnett, the hero of this story, after whom the town was named.—*Herald of Health.*

THE COMFORTS OF LITERATURE.—At no hour of your life will the love of letters ever press you as a burden or fail you as a resource. In the vain and foolish exultation of the heart which the brighter pictures of life will sometimes excite, the pensive portress of science shall call you back to the sober pleasure of her holy cell. In the mortification of disappointment her soothing voice shall whisper serenity and peace. In social converse with the mighty dead of ancient days, you will never smart under the galling sensation of dependence upon the mighty living of the present age; and in your struggle with the world, should a crisis ever occur, when even your country may seem ready to abandon herself and you; when even priest and Levite shall come and look on you and pass by on the other side, seek refuge, my unfailing friends, and be assured you will find it in the friendship of Lucretius and Seneca, in the patriotism of Cicero, Demosthenes and Burke.

TRUE HOSPITALITY.—True hospitality of the home is never loud and noisily demonstrative. It never overwhelms you with its greeting, though you have not a doubt of its perfect sincerity. You are not disturbed by the creaking of the domestic machinery, suddenly driven at unwonted speed for your accommodation. Quietly it does its work, that it may put you in peaceable possession of its results. He is not the true host, she is not the true hostess, who is ever going to and fro with hurried action and hurried manner, and breathes a countenance, as much as to say, "See how hospitable I can be;" but rather the one who takes your coming with quiet dignity and no needless pains-taking; who never intrudes attention, yet is very attentive all the while; who makes you, in one word—most expressive word in the English tongue—at home. There is no richer, deeper, larger hospitality than that.



A New Mechanical Movement—The "Patent Back-Action Brake" for Runaways.

Young Folks' Column.

A Little Talk to the Girls and Boys.

It is very hard for boys and girls between ten and twenty to believe what older people tell them concerning the selection of reading matter. If a book is interesting, exciting, thrilling, the young folks want it to read. They like to feel their hair stand on an end at the hairbreadth escapes of the hero, and their nerves tingle to the ends of their fingers at his exploits, and their faces burn with passionate sympathy in his tribulations—and what harm is there in it? Let us see what harm there may be. You know very well that a child fed on candy and cake and sweetmeats soon loses all healthy appetite for nutritious food, his teeth grow black and crumble away, his stomach becomes deranged, his breath offensive, and the whole physical and mental organization is dwarfed and injured. When he grows older he will crave spices and tobacco and alcohol to stimulate his abnormal appetite and give pungency to tasteless though healthful food. No man who grows up from such childhood, is going to have the first positions of honor and trust and usefulness in the community where he lives. The men who hold those positions were fed with milk and bread and meat when they were young and not with trash.

Now, the mind like the body grows on what it feeds upon. The girl who feeds her brain with silly, sentimental, love-sick stories, grows up into a silly, sentimental, lackadaisical woman, useless for all the noble and substantial work of life. The boy who feeds on sensational newspapers and exciting novels, has no intellectual muscle, no commanding will to make his way in the world. Then, aside from the debilitating effect of such reading, the mind is poisoned by impure associations. These thrilling stories have always murder, or theft, or lying, or knavery as an integral part of their tissue, and boys while reading them live in the companionship of men and women, of boys and girls, with whom they would be ashamed to be seen conversing, whom they would never think of inviting to their homes and introducing to their friends, and whose very names they would not mention in polite society as associates and equals. Every book that one reads, no less than every dinner that one eats, becomes part and parcel of the individual, and we can no more read without injury an unwholesome book or periodical, than we can eat tainted meat and not suffer thereby. Just as there are everywhere stores full of candy, and cake, and liquor, and tobacco, and spices, so there are everywhere books, newspapers and magazines full of the veriest trash, and abounding in everything boys and girls should not read. And just as the healthful stomach passing all these pernicious baits, will choose sound aliment, so the healthful mind will reject the unwholesome literature current everywhere, and select such only as is intrinsically good.

The other day we picked up a popular juvenile weekly, and presently found ourself knee-deep in slang, over our head in vulgar allusion, and in the midst of a low-lived metropolitan crowd, where cock-fights, dog-fights and man-fights were the condiments offered to whet the appetite for reading, and yet we know families where that paper is taken regularly. Do the parents read it? Do they know what company their children are keeping?

But, says the young inquirer, What shall we read, and how shall we know if books are suitable? Read such books as give you valuable information, histories, travels, and those works of fiction that are approved by people of correct judgment. Our leading magazines contain a vast amount of reading, interesting alike to young and old. Do not read what renders distasteful the ordinary duties of life, or renders vice attractive, or makes you long for an impossible and romantic career. Scott, Cooper, Jules Verne, Washington Irving, will never bring you into impure associations; and a correct taste, once formed and carefully consulted, will enable you to select the good and eschew the pernicious.

"Might I give counsel to any young hearer," says Thackeray in his lecture on Prior, Gay and Pope, "I would say to him, try to frequent the company of your betters. In books and life that is the most wholesome society; learn to admire rightly; the great pleasure of life is that. Note what the great men admired; they admired great things; narrow spirits admire basely and worship meanly."—N. Y. Tribune.

A LUNATIC'S NOTION.—Horace Mann used to tell a story of a conversation he once had with an inmate of a lunatic asylum at Worcester, Mass., whose mania resulted from an inordinate development of the bump of self-esteem: "What's the news? Has anything unusual happened of late, Sir?" inquired he, with a consequential air. Mr. Mann happened to recollect that a furious storm had occurred a few days previous, gave him some account of it, mentioning that on the sea-coast it was very severe, several vessels having been driven ashore and wrecked, with the loss of many lives. "Can you remember, Sir, what night in the week all that happened?" eagerly inquired the listener. Mr. Mann said he believed it was the night of Tuesday. "Ah!" said the lunatic, with an air of solemnity, mingled with triumph, and lowering his voice to a whisper, "I can account for it, Sir! That is the night I whistled so. I must be more careful in the future."

Fresco painting is so called because executed with water colors upon fresh plaster. This plaster is made of slacked lime and fine sand, and is applied upon a coating rough enough to make it adhere to it. The fresco needs a wall from materials tintured with saltpetre, and the colors must be such as the lime does not change. When the artist has polished and made very smooth the surface to be painted, he traces upon it the previously prepared composition. The designs, of the size of the picture, are called cartoons, because prepared upon large sheets of paper glued together. Upon the wall the drawing is traced with a point of ivory or wood, or the contour of the drawing is pricked with a pin and a tampon dipped in charcoal passed along the lines of the bores, which fixes the design on the plaster. Afterward the artist follows the tracing with a sharp pointed pencil or stylus, and the indelible contour is called the nail of the fresco.

WHAT A MAN CONSUMES.—"Having ascertained the weight of what I could live upon, so as to preserve health and strength," says the Rev. Sydney Smith, "and what I really have lived upon, I found that between the ages of ten and seventy years I had eaten and drunk forty-four horse wagon loads of meat and drink more than would have preserved me in life and health! The value of this mass of nourishment I consider worth seven thousand pounds sterling! So by my voracity I must have starved to death fully a hundred persons; a fruitful calculation, but irresistibly true."

SCRIPTURAL WOOLING.—A gentleman in a western city sitting in a pew with a lady with whom he had formerly been an intimate acquaintance, handed her a Bible with a pin stuck through the following verse: "And now I beseech thee, lady, not as though I wrote a new commandment unto thee, but that we had from the beginning, that we love one another." After reading it she stuck the pin through the following verse, and handed the book back to him: "Having many things to write unto you, I would not write with paper and ink; but I trust to come unto you, and speak face to face, that our joy may be full."

Two boys were standing before a cigar store, when one asked the other: "Have you got three cents?" "Yes," "Well I have got two cents; give me three cents and I will buy a five center." "All right," says No. 2, handing over his money. No. 1 enters the store, lights it and puffs with a good deal of satisfaction. "Come, now, give us a pull," says No. 2. "I furnished more than half the money." "I know that," says the smoker; "but then I'm the President, and you being only a stockholder, you can spit."

A LADY and her eight year old daughter were among the passengers on a Detroit street-car the other day, and presently the little miss observed a man take out his handkerchief, flourish it around, and then wipe his nose. The child leaned over to her mother and whispered: "Mamma, that gentleman is trying to flirt with me, but I shall give him the handkerchief signal that I distrust his motives."

A cow in Michigan lost three inches of her tongue in a peculiar manner last week. She was hitched on the barn floor, facing a stall containing a horse, and while trying to lap salt through a crack in the manger, the horse caught her tongue and bit it off.

If gilt frames are varnished with copal varnish, they can be washed with cold water without injury.

GOOD HEALTH.

How the Brain is Supplied with Blood.

The brain, says the *Herald of Health*, is supplied with blood by four arterial trunks which enter the cranial cavity at no great distance from one another and then unite into the "Circle of Willis," from which are given off the various branches that distribute arterial blood to every part of the brain substance. After traversing this, the blood returns by the veins, greatly altered by its chemical composition, especially as regards the loss of free oxygen, and its replacement by various oxygen compounds of carbon, hydrogen, phosphorus, etc., that have been formed by a process analogous to combustion. Now, if one, two or three of the arterial trunks be tied, the total supply of blood to the brain is diminished, but in virtue of the "Circle of Willis," no part is entirely deprived of blood, and the functional activity of the brain is still maintained. If, however, the fourth artery is compressed so as to prevent the passage of blood there is an immediate and complete suspension of activity, the animal becoming as unconscious as if it had been stunned by a severe blow, but recovering as soon as the blood is again allowed to flow through the artery. In fact a "stunned" state produced by a blow on the head is not directly dependent upon the effect of that blow upon the brain, which may have sustained no perceptible injury whatever, the state of insensibility being due to the paralysis of the heart and suspension of circulation induced by the "shock;" and the like paralysis, with the same result, may be produced by a blow on the epigastrium (acting on the great "solar plexus" of nerves), or some overpowering mental emotion. Again there is a curious affection termed hysterical coma, which consists in the sudden supervention of complete insensibility and the equally sudden and complete return of conscious intelligence without any other indication of brain disorder. The insensibility may come on while the patient is talking, so as to interrupt the utterance of a sentence, and the moment that it passes off the series of words is taken up and completed, without the patient being aware that it has been interrupted. With our present improved knowledge of the action of the vaso-motor system of nerves in producing local contractions of the arteries, and of liability to be influenced by those emotional irregularities in which hysteria essentially consists, we can scarcely doubt that the affection is due to temporary disturbance of this circulation through that agency. Further, if the blood transmitted to the brain, though not deficient in quantity, be depraved in quality by the want of oxygen and the accumulation of carbonic acid, (as in asphyxia), there is gradually increasing torpor of the mental faculties ending in complete insensibility.

The Heroic Treatment.

As an illustration of the power of one poison to counteract another in the human system a recent case in South Bend, Indiana, furnishes a highly important and interesting instance.

Dr. Harris was called to the relief of a would-be suicide, and administered the successful antidote. The person had taken between forty and fifty grains of opium, and was fast dying. He could no longer swallow, his extremities were cold and had turned black, while his respirations only numbered between six and seven to the minute. This last of itself seemed to indicate that all hope was gone, as anything less than eight respirations had heretofore been known as a sure precursor of death. As a last resort the doctor determined to try what is known as the heroic treatment, and he accordingly, with a hypodermic syringe, injected two-thirds of a drachm of nux vomica, dissolved in a teaspoonful of water, beneath the skin over the heart, stomach, spine, and on each arm above the elbow, and on the calf of each leg. The quantity of nux vomica would have been the death of any well man in existence, but in antagonism to the opium it was in this seemingly hopeless case an agent of life, and in fifteen minutes the man was sitting up in bed, conscious, and rapidly recovering.

Another Case of Heroic Treatment

Is told by the Springfield (Mass.) *Republican* of the way B. A. Leonard, a dumb man, residing in Southbridge, recently recovered his voice. He lost it about a year ago, while recovering from an attack of cerebro-spinal meningitis, but a few mornings since he was awakened about four o'clock by a sense of oppression and faintness. He became conscious enough to understand that gas was escaping from a coal stove, and that he would soon die unless he could get to fresh air; so, after many falls and tumbles he gained the outside of the door, where he fainted, but was soon aroused by the lapping and tugging of a faithful Newfoundland dog. Then the thought came to him that his wife and child were in the house, and though he had not spoken for months he called loudly for help. His cries, united with the howls the dog set up, soon roused a neighbor, to whom he told his troubles, and again fainted, and was insensible for two hours. On recovering he was unable to talk, but the doctor, on beating the case, caught an idea, and ordered him to visit the gas house and breathe air in the purifying-room. After spending an hour and a half there he could talk in a whisper, and has since steadily regained the perfect use of his voice.

DOMESTIC ECONOMY.

Snail Eating in France.

A correspondent of the *St. Louis Globe* writes as follows: Some of the dishes of Paris are peculiar. Snails, for example, are greatly relished. You can see them in the windows of the third-rate restaurants, and they may be had at the first-class places, but not generally. Snail-eating is an ancient Roman custom, still practised in Italy. The old Romans regarded the mollusk as a great delicacy, taking unwearied pains to cultivate it. The wealthy epicures had maileries, causing snails to be fattened with boiled spiced barley and aromatic wine. They were imported from Sicily and the Balearic Isles, and commanded a high price.

The snails in the Paris market usually come from the wine-making regions in the vicinity. They are very fond of grape leaves, on which they are found, and sent in quantities to the capital. They are sold wholesale to the Halles Centrales and other markets for from twelve to sixteen sous a hundred, and are retailed for from one to three francs a hundred, according to quality and size. The French often suck them out of the shell, as "Yankees" do oysters; but, generally, they boil them in the shell, and eat them with a batter composed of butter, pepper, salt, herbs and eggs.

There may be—probably there is—something abhorrent to you in swallowing a snail. It is all a matter of education. I once had a feeling of repulsion concerning the little slimy creature, but I have overcome the feeling. The snail greatly resembles the oyster, except that it is terrene instead of marine. If we had never eaten oysters, we should shrink from the idea of eating them, and yet we devour them with the greatest satisfaction, and count persons foolish who have not learned to like them.

There is no more intrinsic reason to recoil from a snail. I remember the first time I swallowed one. It was a year ago in Venice. I had seen the Italians undergo the suction without a shudder—nay, with gusto. I swallowed a snail by a pure effort of will, and with the greatest difficulty prevented myself from imitating Vesuvius. My imagination played me sad tricks for a few minutes. I fancied I could feel it crawling within, that the flavor was disagreeable, that it had nauseated me, etc. I was sure it was a delusion, and so it was. The cause was the novelty of the experience. I swallowed more snails, and discovered that they tasted not unlike shrimps. Once to get rid of the idea of what they were, was to relish them—at least moderately. I prefer them cooked to raw. They are excellently cooked here, and I am confident that every one who enjoys shell-fish would enjoy snails, were he left in ignorance of their name. Persons who want to cultivate their taste in this direction should begin with the mollusks boiled and served with butter.

The Burgundy snail, so called because it is found in the domains of the old province, is the largest and best in this market. It is about two inches long, and might easily be mistaken by the palate for a small oyster.

The police, who always supervise everything here, whatever the change of government, do not neglect the snail market. It is essential they should not. The animal has a partiality for unwholesome and poisonous plants, particularly tobacco and belladonna; devouring them greedily and without ill consequences. Still, if it were eaten in any quantity, after continuous feeding of that sort, its effect on the human stomach could not be healthful, and might be disastrous. The snail, therefore, undergoes inspection. Its nativity and rearing must be vouched for, and its condition ascertained before it can enter the gates. The mollusk is best after it has fasted for several days, and most appetizing to the stranger, doubtless, after he has also fasted for some time.

OYSTER PIE.—Fifty oysters, two eggs, two teaspoonfuls of flour, quarter of a pound of butter, a little vinegar, chopped parsley, pepper, salt and nutmeg. Beat the eggs until they are light, drain the oysters from their liquid, put them in a stew pan, and let them simmer for five minutes. Melt the butter, and stir the flour into it perfectly smooth. To the butter add the beaten eggs, parsley, nutmeg, pepper, salt and vinegar. Mix well, and to this add the oysters. Let them simmer together for ten minutes; then put into the paste. Place in the oven immediately and bake.

WASHING cotton goods without injuring the colors is done by placing the goods in a bucket of rain water so hot that the hand can not be held in it, and added to this as much bran as an eighth part of the fabric would weigh. Stir it lightly with a stick and let it come to a boil. Let it cool until the goods can be washed out as usual, then rinse and dry, and you will find the clothes pure and clean, and the colors bright as ever.

MINCE PIES.—Five pounds lean beef, three pounds suet, or two and a half pounds, as you like; two pounds raisins, two pounds currants, one pound citron, three or four pounds of sugar to taste, quart of good brandy, spice and lemon juice to taste.

The above is to keep on hand awhile, and as you make the pies add chopped apples, say two medium sized ones to a pie.



PUBLISHED BY
DEWEY & CO.
A. T. DEWEY. W. B. EWER. G. H. STRONG. J. L. BOONE
PRINCIPAL EDITOR.....W. B. EWER, A. M.

OFFICE, No. 224 Sansome street, Southeast corner of California street, where friends and patrons are invited to our SCIENTIFIC PRESS, Patent Agency, Engraving and Printing establishment.

SUBSCRIPTIONS payable in advance—For one year, \$4; six months, \$2.25; three months, \$1.25. Remittances by registered letters or P. O. orders at our risk.
ADVERTISING RATES.—1 week. 1 month. 3 months. 1 year
Per line.....25 .80 \$2.00 \$5.00
One-half inch.....\$1.00 \$3.00 \$7.50 24.00
One inch.....2.00 5.00 14.00 40.00

Large advertisements at favorable rates. Special or reading notices, legal advertisements, notices appearing in extraordinary type or in particular parts of the paper, inserted at special rates.

No Quack Advertisements inserted in these columns.

GET UP CLUBS FOR THE RURAL PRESS.

OLD SUBSCRIBERS and other reliable persons are authorized to get up clubs of five or more subscribers for this paper at \$3 per annum for each name. Our terms for all subscribers are cash in advance. Postage will be prepaid by us after January 1st, 1874. The papers will be addressed singly to each individual. Regular subscription price \$4. Sample copies free. Let those who will work for the Rural Press in mind that they will confer a lasting benefit on new subscribers, besides improving their own talents by business practice. Try your hand and report at once. We offer all a chance. You do not know what can be done till you try!

SAN FRANCISCO:
Saturday, April 24, 1875.

TABLE OF CONTENTS.

GENERAL EDITORIALS.—The Champion Resper and Mower in California; Points Gained for Mohair; Sub Soling, 265. Another Progressive Step for the Alden Process; California's New Surplus; Text-Book Decision; The University and its Naughty Boys; The Present Crop Situation; The Immigration Question, 272. A New Industry: A Spoiled Dog; Concrete Houses, Fences, Etc., 273. More Enquiries from Abroad; Patents and Inventions, 276.
ILLUSTRATIONS.—The "Champion" Self-Raker in Down or Short Grain; The "Champion" Mower on the Road, 266. A New Mechanical Movement—The "Patent Back-Action Brake" for Runaways, 271. Paper Barrel Complete; Paper Barrel in Parts, 273.
CORRESPONDENCE.—Potter Valley—Crops, Fruit, Etc.; Lands in Amador County; Jack Rabbits and Grasshoppers; From Yacaville; Wheat Damaged by Frost; Further from Los Angeles County; Curb on a Horse; From Fresno County, 266.
POULTRY YARD.—Ashes for Poultry; Ulcer in Throat—Treatment of Chickens, Etc., 267.
SHEEP AND WOOL.—Eastern Wool Market; The Most Profitable Kind of Merino Sheep, 267.
PATRONS OF HUSBANDRY.—Progress of the Patrons in California; New Granges; Meetings; Etc., 268-9.
AGRICULTURAL NOTES from various counties in California, 269.
HORTICULTURE.—Things to be Noticed in Town Gardens, 269.
HOME CIRCLE.—In the Nest (Poetry); Farm House Chat; "In Those Days There Were Giants"; The Stump Fence; The Comforts of Literature; True Hospitality, 270.
YOUNG FOLKS' COLUMN.—A Little Talk to the Girls and Boys, 271.
GOOD HEALTH.—How the Brain is Supplied with Blood; The Heroic Treatment, 271.
DOMESTIC ECONOMY.—Snail Eating in France; Oyster Pie; Mince Pies, 271.
MISCELLANEOUS.—Hygienic Boot Soles; Imitation of Tortoise Shell; Power Required for the Circular Saw, 266. Importance of Home Manufactures; The Wool Product of California; Lace Leather; A Useful Table, 267.

Another Progressive Step for the Alden Process.

It will be seen by the new advertisement of the Alden company which will be found in our paper to-day, that still greater inducements are offered for the general adoption of this process of fruit drying. Entire satisfaction was given by this apparatus as heretofore used and at former prices, and now we have the additional guarantee that the same apparatus, as improved for the coming fruit drying campaign will dry one-third more fruit than formerly and has been materially reduced in price.

The announcement of these new points in the Alden process will, we are confident, be received with pleasure by our readers, and will confirm them in the belief that this is to be our chief reliance in the vast fruit drying system of the future.

RUBBER PAINT.—The U. S. Hospital at the Presidio and the Governor's mansion at Sacramento are both being painted with the rubber paint manufactured by the Pacific Rubber Paint Co., No. 207 Sacramento street. This paint is fast coming into more general use as its merits become known, and the manufacturers have all they can do to fill orders.

ON FILE.—The Santiago and Lick Mill Paper Manufacturing Company, "G. W. M.;" "Poultry," J. W. R.; "How our Plains may be Irrigated, etc.," M. W. R.; "The Coming Man," E. E. A.

California's New Surplus.

The question, how shall we dispose of our surplus fruit, has, for the present, lost its paramount interest, for the very good reason that we are not likely to have any surplus fruit, for one year at least, possibly for a longer period. But rather opportunely, a question of a similar character and of equal importance arises to take its place; namely—what shall we do with our surplus immigration? Possibly this question will, at no distant day, meet with the solution that so effectually disposed of our surplus fruit; that is, we shall probably in a short time have but little immigration to dispose of.

To the spectators who find amusement in witnessing the "ground and lofty tumbling" of the American press, the summersault which the California papers have recently turned on the immigration platform, must be particularly amusing. Journalists who six weeks ago magnanimously pledged the State to give immediate and profitable employment to 200,000 new coming workmen, are at the present time throwing up their hands in despair, and exclaiming: "what shall we do to be saved from this rush of immigration;" and this, too, before a tenth part of this 200,000 has reached California, and a fair proportion of this small part, we may suppose, do not ask to be "disposed of" by journalists or anybody else. Those who are concerned for the reputation of California will find more cause for regret in the present position of the country on the immigration subject, than in any case where the people have been supposed to give utterance to their views through the press. In the eyes of these observing new comers, and in the estimation of the world at large, California must certainly appear either as a heartless flirt, or as being entirely incompetent to deal with the not at all momentous responsibility of the hour. We are represented as deploring this "great tidal wave," as the newspapers call it, as a sort of punishment. The papers of the interior accuse those of the cities of letting down the bars for the entrance of this horde of home seekers, while they turn on their accusers and say "you did it."

But the milk of journalistic kindness flows forth in the suggestion that somebody ought to do something toward the immediate disposal of this new surplus. We are told that these people have been induced to come hither by exaggerated statements concerning the advantages that California holds in store for the immigrant, and that it is our duty to do for them what we cannot do for ourselves, that is, to place them at once in an easy running groove leading to fortune; and we are called upon to prepare for them something that will approximate the bed of roses which it is supposed they expected on their arrival. But is there not a palpable misconception of the constituent parts of this "tidal wave," of the power that placed it on this coast, and of our responsibilities in connection with it. We think there is. In the first place nothing but a very superficial view of the subject would tolerate the apparently prevailing impression that these tens of thousands of people are led, or rather misled, by one motive, and that they are of a uniform type. What this type is any newspaper reader can tell.

Now we cannot see the propriety of paying more deference to the immigrants who come here in 1875 than to those who came here in other years. The wrong we are most likely to inflict upon these new comers is the supposition that they come here with the expectation of being petted and provided for. Though we do not subscribe to the arbitrary type that has been attached to this immigration, we believe that the great majority of men composing it cannot be spoiled, even by any association that may be established in their behalf, to provide employment for them or to maintain them in idleness until employment is found. It would be an easy matter to found such institutions; there are plenty of men who would be willing, at "a moderate salary," to trot about our streets with a pen over their ear, or to sit in offices dealing out rations of advice to the unprovided for, and whose views as to which is the promised land, are possibly biased by what they have promised to owners of certain lands. And, unless this tidal wave is entirely different from all other waves of emigration, there will be no lack of applications for any promised benefits from such associations.

The suggestion that there are undoubtedly some "bummers" among these many thousands of earnest, industrious people, may possibly shock the over sensitive of our own people, and it may seem like throwing a wet blanket on a worthy and benevolent undertaking to hint at the danger of creating bummers by such schemes; but it is these contingencies for which we are really called upon to provide, instead of disposing of this massive wave in a body.

The industrial element of which this symbolic wave is largely composed will, like the water of the real wave, soon find its own level. Such as are members of secret orders will at once fraternize with their brethren, and receive such attention as their case demands. Mechanics will go to the shops of their trades, and will derive more real benefit from ten minutes conversation with the workmen of their calling than all the newspapers and societies in the

country can supply. Farmers will start for the district where their favorite branch of farming is practiced, and none of these will starve or suffer for want of shelter, though they may have to rough it for a season, like the rest of us.

There seems to be a prevailing fear that these people will be woefully disappointed when they find that no provision has been made for them, and will return in disgust. There are no grounds for such apprehensions. We should bear in mind that they have just emerged from as great a surplus as they will find here; the notable difference being that there it is almost hopelessly permanent; here it is but temporary; while the charms of the climate will cover a multitude of evils in the estimation of those who have endured the severities of the past winter in the East. When we consider the marvelous adaptability of the American character we can see no cause for alarm in the present situation. It will soon be seen how quickly the new comers will adapt themselves to the country, and how Californians will play their part in this mutual adaptation.

Meanwhile we shall continue to do all in our power for the benefit of this and other waves of immigration.

With this view we shall give in our columns, under the head of "Openings for Immigrants," such information as we can gather concerning those localities where openings are supposed to occur.

Text-Book Decision.

The Supreme Court, April 19th, Chief Justice Wallace presiding, in the case of "The People ex rel. Bellmer vs. the State Board of Education," which involves the legality of the adoption by the Board of the "Pacific Coast Readers," decided that as the Board of Education neglected to give six months' notice of the proposed change, as is required by the Code, their action was null and void. This decision leaves the text-book question where it stood before the meeting of the State Board in January.

The Act of April 4, 1870, sec. 88, contains the following provisions: "Any books once adopted in the State series shall be continued in use for a period of not less than four years." The Political Code, as originally adopted, contains the following provision: "Sec. 1874—Any books once adopted as a part of a uniform series must be continued in use for not less than four years." It is apparent that the provision of the Code last recited is "substantially the same" as the provision found in the Act of April 4, 1870, and under the rule of construction prescribed by the fifth section of the Political Code, sec. 1874 of that Code is a continuation of sec. 88 of the Act of 1870. It is in fact a mere repetition of sec. 88 of that Act in reference to the use of books under the established system of public instruction administered through the agency of common schools. Neither the Act nor the Code permitted a discontinuance of an adopted series of books until such series had been in use for the period of four years, and neither of them prescribed the procedure by which, even after the lapse of that time, the adopted series might be authoritatively changed. This defect was remedied by the amendment of section 1874 of the Code, by which six months' notice of any proposed change was required to be given. The authority of the Board to effect the change was thereby made dependent upon the giving of the prescribed notice, and its exercise was forbidden, except after such notice first given. It is not seriously claimed that any notice of the attempted change here in question was ever given, or attempted to be given upon the part of the Board. Certainly the circumstance that the proceedings of the Board, in which their intention to effect a change was declared, subsequently appeared in the columns of a newspaper as a mere matter of public interest, could not be claimed to amount to official notice given by authority of the Board pursuant to the provisions of the statute in that behalf.

In accordance with this view of the case the judgment of the Court below was affirmed, and it was so ordered.

The Present Crop Situation.

By reference to our "Agricultural Notes," it will be seen that the present condition of the fruit crop corresponds very closely with the view of it expressed in the Rural Press of last week, but the prospect of the wheat crop is less encouraging than at that time. The frost was more damaging to wheat than was at first supposed, and in some localities where the crops were believed to be beyond the liability to suffer from drought, dry winds have, within a few days, been very destructive to the wheat. To what extent the crop has been damaged cannot at present be ascertained.

But, though the present view of our wheat crop is somewhat discouraging, it is without doubt more promising than that of the Atlantic States. An investigation of the condition of winter wheat by the Statistical Division of the Department of Agriculture presents the crop as a whole much below the status of last year in April.

CITIZENS of Waitsburg, W. T., contemplate the erection of an oil mill so as to utilize the large product of flax in that section.

The University and its Naughty Boys.

It has generally been supposed that *The Berkeleyan*, a monthly publication issued by the students of the State University, was tolerated, and even encouraged, by the institution, on the supposition that it would keep the boys out of mischief by furnishing them with harmless recreation. But "boys will be boys," and the youthful get-togethers of *The Berkeleyan* have been "telling tales out of school," which are extremely discreditable to the parent institution.

In the April number of this periodical are found two rather promising attempts at toadyism, Presidents Gilman and Le Conte being the subjects of the same. The sins against literary taste, and even the palpable toadyism of these productions would have passed uncensored had not the one which relates to President Gilman contained a passage which is evidently a studied insult to the farming community. In an entirely uncalled for review of circumstances connected with the withdrawal of the late President, the following passage occurs:

"Let us not omit among the supporters of the University, the Grangers, those rude, sagacious men, who discuss with equal facility law-making, education and the potato rust. They should be remembered because they know by instinct how to run a University, whereas most men have to learn it by hard experience. They have proved conclusively that an agricultural institution should teach a man to plow. They will, no doubt, demonstrate the advisability of a bakery establishment, in order that the lady graduates may be good bread makers. It was unfortunate for President Gilman's popularity that he could not accept these various views for the improvement of the University."

The above may make the unskillful laugh; but it will certainly make the judicious grieve. It is probing an old sore which the farmers, at least, were willing to leave untouched. Those who still retain doubts of the friendliness of the State University towards agriculture will, perhaps, see in this effusion new indications of the presence of shoddy in the educational fabric produced by this establishment, and will be confirmed in the belief that the compliments conferred on some who are supposed to represent the farming community, were really meant as practical jokes. But the general opinion will undoubtedly be that the mother institution did not know that her boys were out on this skylarking expedition, and is therefore really not to blame for what was done, but that they should, nevertheless, be taken across the parental knee and receive a good spanking for insulting their superiors.

The Immigration Question.

The present rush of immigrants to this coast and the need that they should be properly guided in the matter of finding future homes among us demands and is receiving that attention from our merchants and citizens generally which its importance demands. Among those who have taken an active interest in this matter we may mention the firm of Charles Clayton & Co., commission merchants, northeast corner of Clay and Front streets. They have issued a printed circular to their correspondents throughout the State, desiring to be placed in possession of information in regard to lands for sale and labor requirements, and are now in receipt of a large number of letters daily, the information from which is being collated and arranged for the benefit of all comers free of cost. They have set several clerks at work in this matter at their own expense, and have thrown open the doors of their office to all who may see fit to visit them in search of information for the benefit of immigrants. We understand that there are also many others among our merchants who are giving freely of their time and money in the furtherance of this good work. We would call attention in this connection to the concerted action of our merchants whose proceedings at a public meeting on Leidesdorff street are recorded in another column.

Some six years ago there was a similar rush of immigrants to this city, which was not met in a proper manner, as this is now being received. The consequence was that the larger portion of these persons found their way to Oregon and added some thousands to the population of that State, instead of remaining in California. Our merchants are determined that that mistake shall not be repeated.

TOULOUSE GEESSE WANTED.—MESSRS EDITORS:—Will you or some of your readers please inform me where I can obtain a pair of Toulouse geese or eggs, stating price of birds per pair and eggs per dozen. I mean who in this State has them. I see no advertisement of any in your paper. Any one having them or knowing where they can be procured will confer a favor by giving the desired information.
H. H. STEVENSON.

San Jose, April 19, 1875.

OUR NEXT SUPPLEMENT.—On May first we shall publish with the regular issue of the Rural Press another eight page supplement, containing, with other matter, the monthly Grange Directory, revised and corrected.

A New Industry.

A collection of all the various articles of domestic and commercial use into which paper enters as the chief constituent, would form quite an extensive and interesting museum. With the expanding progress of invention it is difficult to forecast where the end will be to the application of this simple yet useful material. So extensive has become its application that the rag bag of the housewife, the gleanings of the cheffonier, and the waste of the cotton mill, long since failed to meet the wants of the paper manufacturer in the way of new material, and almost the entire fibrous material of the vegetable kingdom, not even omitting the growth of the forest, has been called upon to supply the ever increasing demand for paper "pulp."

The latest use to which paper has been applied is the manufacture of barrels of various sizes, from the size of a fruit can capacity up to the largest packages employed for packing flour, sugar, etc.

Were we not already familiar with the paper collar, paper bosom, and even the full length extension of shirt, paper handkerchiefs, pants and coat—the last made even water-proof—we might have regarded the idea of a paper barrel as preposterous. But nothing in the way of handiwork possibilities can now surprise the ordinarily intelligent Yankee; and so, when some months since we heard that to that curious collection of machinery employed in the wonder working mechanisms that may be daily witnessed at the Pacific Barrel Factory of Flint, Peabody & Co., on Brannan street, near Eighth, was to be added still another set of machinery for converting the straw of our wheat fields into convenient packages for conveying to market the grain itself, we suppressed any demonstration of curiosity, but resolved to "keep an eye out" and watch closely the development of that new Yankee notion. True to our purpose, we have from time to time made some excuse or another for just happening in, you know, at the works, until one day the past week we observed the workmen actually engaged in making paper barrels, and judging from the *modus operandi* and the quality of the article produced, we see no reason why that institution would not better serve the public and themselves, by converting their supply of timber into kindling wood, and turning their entire force to converting the waste straw of our wheat fields into the neat looking and substantial paper barrels with which they are now prepared to supply all who may be in need of that kind of package.

What is a Paper Barrel?

Is a question that the reader will very naturally ask—how is it constructed? In answer we would say that this barrel is made of successive layers of ordinary straw paper board, cemented together, and subjected in the process to an enormous pressure, the result of which is a compact sheet of considerable thickness, and of far greater resistive force than the same thickness of the toughest wood that the forest can produce. The sheet thus formed has its two ends dove-tailed, as shown in Fig. 1 of the accompanying illustration, which are afterwards brought together and closed in the form of a cylinder, as shown in Fig. 2, backed by a cleat of the same material, and held firmly in place by double pointed tacks, which are driven through and clinched on the inner side. The heads of the barrels are turned from wood and flanged, as shown in section, and inserted in the cylinder, and so secured as to be much stronger and safer than in a common wooden barrel. The barrel may be subsequently strengthened by hoops, either of paper or iron, as may be desired, although the former seems all that is needed. The resisting power and durability of these barrels will be perfectly apparent to any person who will take the trouble to examine them. The following may be mentioned as

Some of the Advantages

They possess over the wooden barrel. Their form being that of a uniform cylinder there is a saving of fifteen per cent. in stowage. This would be a large gain in stowing in a vessel, and also in cost of storage in warehouse.

They have successfully stood all trials as to liability to burst, having been tested with 4,000 pounds inside pressure without bursting.

The paper is made water proof, impervious to air or moisture, and hence is not liable to absorb the odors arising from other articles when stored together in a vessel, and being about air tight they are especially desirable as a protection against the insects and vermin which abound in warm climates and against loss of flour or sugar by sifting out in handling.

They are more easily handled than the wooden barrel, as they roll at a true angle, while the wooden barrel, from its convex shape, is liable to roll in any direction. Neither will the heads fall out as readily as those of wooden barrels.

They can be shipped each part complete, and set up as required, thus saving much space and cost in transportation; and in this way any man can be his own cooper. Any boy can put them together. A smart boy can set up from one hundred to one hundred and fifty barrels per day. The hoops are only added for protection in rolling, so that if they become

loose, or are even knocked off, the barrel is in no degree impaired.

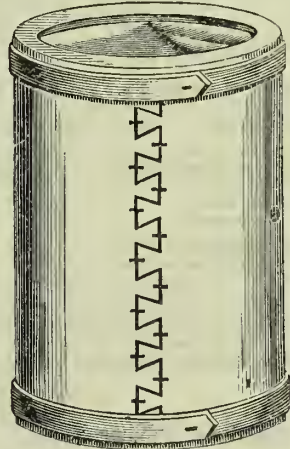
The paper from which the barrel is made is manufactured from wheat straw, and it is evident that nothing can be cleaner or sweeter for the packing of flour than the straw on which it is grown. And the same advantage applies to sugar and many other articles.

These barrels are lighter and more easy to handle than any others of equal capacity, or than boxes. They are also proof against dust, bugs or insects, as they are so tight that none can enter.

They can be unheaded without injury to barrel or head, and when empty will form a valuable and even ornamental article for many household purposes, such as for the storage of soiled clothing, furs, linen, vegetables, etc. They are especially calculated as desirable packages for flour, sugar, rice, cheese, butter, meal, grain of all kinds, coffee, spices, dried and other fruits, etc.

At some future time, when the machinery is in more full and complete operation, we propose to give a detailed description of the machinery by which they are constructed, and the mode of manufacture. This, we believe, is the seventh factory for this manufacture which has been put in operation, their order being as follows: Chicago, Jacksonville, Ill.; Beloit, Wis.; Decorah, Iowa; Winona, Minnesota; Kansas City, Missouri; and San Francisco.

In this connection we desire to make particular reference to the energy and enterprise of the Pacific Barrel and Keg Company, who have manifested such persistent energy in the inception of and carrying into the most successful operation this important branch of manufacture—the only establishment of the kind on the Pacific coast. In addition to difficulties which always attend any new manufacturing enterprise on this coast, they had the misfortune, soon after they started on the Potrero, to lose their entire stock and machinery by fire. But, nothing daunted, they immediately ordered new, more perfect and more extensive machinery, and rebuilt at their present location. They have been constantly adding new and improved machinery from time to



Paper Barrel Complete.

time, thus keeping their establishment constantly abreast of the best appointed institutions of the kind in the country, and always ready to supply the public with the best character of work. It is in furtherance of this desire to be behindhand in nothing, that they have just added the new feature which forms the subject of this article. We may also add, in concluding, that much of the success of this enterprise has been due to the energy, urbanity and untiring devotion to his charge of the chief manager, Mr. James L. Crosset, who has been in charge of the works from their very first inception until the present time.

LOCAL INFORMATION FOR IMMIGRANTS.—We have received from W. P. L. Winham a pamphlet entitled "The Great Salinas Valley," showing the material advantages and present condition of this portion of Monterey county.

If the enterprising citizens of other portions of the State would do likewise, they will confer a favor on us and on the prospective and arriving immigrants, and will also advance the interests of their localities. What is wanted is a plain geographical description of the country, statistics of population, schools, churches, agricultural products; the price of land in the country and rates of house rent in the villages; the local prospects for mechanics with limited means and manufacturers with abundant capital. If people in different parts of the State will furnish us with the above information concerning their respective localities it will be received as a favor to us, and we will endeavor to turn it to the advantage of immigrants and of the country also. We shall not expect to publish all that is sent to us in this connection, but by having it on hand for reference, it will best serve the interests of all parties.

THE Contra Costa Gazette is of the opinion that enough has been done under the provisions of the abatement law to prove that it is practicable to abate the squirrel nuisance entirely, and people should resolve to have it done.

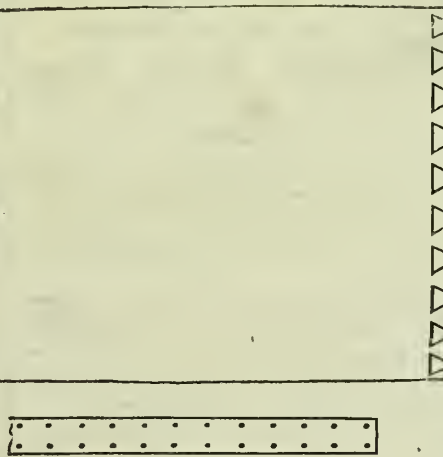
THE haying season has opened at Los Nietos, Los Angeles county.

A Spoiled Dog.

In the case of spoiled children it seems to be expected that neighbors and relatives shall sniffer about equally with the parents, the spoilers of the same, but we had not supposed that the community, especially the cane and pistol-carrying portion of it, were to be annoyed by spoiled dogs. But no man knows what troubles, trials and responsibilities will be laid at his door by each coming day. An unexpected requisition was made upon our fund of knowledge this morning by a letter from "Subscriber," who wishes to be informed of the proper way to treat a spoiled dog. Subscriber admits that the animal has been spoiled, and that "when you try to set him after stock he will hunt for a place to hide; and with all the kindest efforts, it is impossible to make him understand it is the stock you want him to chase, instead of hunting for a place to hide." He says further that he is a good dog, is very watchful at night, but will not chase stock.

This case certainly presents some notable points. We have no reason to doubt the veracity of Subscriber, but the statement that a good dog will go hunting for a place to hide instead of chasing stock, is startling, to say the least. If he had stated that the animal would chase stock, and then go and hide, it would have seemed perfectly natural. Why, we have known even bad dogs that would voluntarily chase stock by the hour.

We feel as though something ought to be done in this case. Some editors would shirk the responsibilities here involved by simply telling Subscriber to bring a dog up in the way



Paper Barrel in Parts.

he should go and when he is old he will not depart from it; but this is not our way. We would advise our friend to first try mild, reformatory, educational measures. He should subscribe for some young folks' publication, and read to him stories about bad boys who begin a long career of vice by gum chewing and end by becoming members of Congress, or of good boys who find purses belonging to very bald headed and very wealthy men, who have nothing in the world to do but to sit cross-legged in their offices in arm chairs, with backs unreasonably high and sign bank checks for charitable purposes, are taken at once into the employ of these office portraits, becoming partners in due time, and end their career of hypocrisy by marrying the only daughters of the establishments. If this does not induce him to chase stock he should be utilized some other way. Are there no sausage factories in Subscriber's neighborhood? Our spoiled boys, the hoodlums, are ground up metaphorically into newspaper items, and coming back to the public in this form are much relished. This has become one of the most prosperous industries of our large cities.

We shall look anxiously for further information from this quarter; meanwhile if any other subscribers discover any character defects in their cats or dogs we should be informed of it at once.

THAT CANAL MATTER.—A few weeks since we published an article on the subject of a canal for irrigating and navigating purposes, which, we are glad to hear, has been extremely well received in the locality which it was intended to benefit—"the great San Joaquin valley." A communication signed "Ellis" has been received, which requests the republication of the article alluded to, as it is thought that it might thus be made still more effective for good. If Ellis and his neighbors will give this matter proper consideration, they will, we think, agree with us that this would be doing an injustice to the great mass of the readers of the Press. Anything fresh on this subject that is pertinent and proper will meet with a favorable reception.

THE agricultural fair grounds at Reno, Nevada, are being fixed up.

Concrete Houses, Fences, Etc.

Two little books, bound in cloth, are lying upon our table. One of these is entitled "A Home for All, or the Gravel Wall and Octagon Mode of Building," and having at the bottom of its elaborate title page the motto: "There's no place like home," especially, it is to be inferred, if this home is built of concrete. This work is, of course, the production of the American philosopher, O. S. Fowler. The other work, less in size and less profusely gilded, bears the promising title: "The Poor Man's Home and Rich Man's Palace; or, The Application of the Gravel Wall Cement to the purposes of Building." George Barrett confesses to have written the above.

Works like the above are, as a rule, not allowed a place on our table; and our readers will find the excuse for their present appearance there in the following enquiry, received from a subscriber at Santa Clara:

"EDITORS PRESS:—Can you give any information in regard to concrete houses and fences; the material to make them of, mode of making, cost compared with other material, etc.? Do you think the sand in the vicinity of Anaheim would do to make concrete? If you can give any information, please do it, and oblige a subscriber."

In order to answer these questions intelligently we procured the above works, as the only available authority on the subject. In answer to the first question, "the material to make them of," we find on page 20, of "Homes for All," the following: "All that is wanted is stone and lime. The stone requires to be of various sizes, from tolerably fine sand all the way along up to stones as large as you can well deposit in your wall. A wall made simply of lime and sand will answer, yet stones add considerably to its solidity, especially while the wall is yet soft, and serves the purpose of holding a wall up while it becomes hard; but once hard, sand and lime make just as solid a wall without stone as with." In regard to the lime, the same author says: "The lime I used was of the coarsest, commonest quality, such as farmers put upon their lands; was slacked at the kiln (probably the author means kiln), and cost 4½ cents per bushel." Mode of building: The directions in these works on mud architecture are intended for localities where people have foundations for their houses, and when the foundation is laid, make a sort of mould with boards, having it the thickness of the wall—about fifteen inches—and making the sections in height and length as large as you wish to fill in at one time; put in the concrete, leaving it from twelve to twenty-four hours to harden, then shift the mould and fill in as before described.

There are so many contingencies growing out of the matter of the comparative cost of concrete, lime and other materials, we forbear going into this part of the subject.

Now as to the fitness of the sand in the vicinity of Anaheim for forming concrete, the best we can do under the circumstances is to quote from "Poor Man's Home and the Rich Man's Palace:" "Clean deposits of gravel made along the banks or in the beds of rivers is undoubtedly the best of any; bank gravel however is good; the great point of excellence consists in the absence of loam and clay, or its being, as the masons say, 'free from dirt,' much loam or clay will spoil it."

With regard to the relative proportions of gravel and lime, the same authority declares, "I doubt whether there has yet been time since its discovery for experience to have demonstrated the fact, but certain it is that very great latitude is embraced between the limits of proportional admixture, which brief experience has proven to be perfectly safe."

This is all the enquiry called for, but we claim, as a partial recompense for wading through the above works, the privilege of expressing our opinion of this and kindred matters. America has been particularly unfortunate in the production of innumerable books and other publications of the type quoted from. We have here among us a class of men who are sharp enough to detect in the American character the presence of shrewdness and practical sense, but who are entirely incapable of fathoming that character to its depths in sentiment and feeling, or of following it up in its higher reaches of thought. They evidently think they are aiding intellectual progress by cramming the public with what seems to them useful information, in the form of diluted science and calcined sentiments, and attempting to rebuild the social system of a sort of concrete similar to that described above. Because they are not profound, they expect to be credited with being practical; and by potently ignoring all claims to rhetoric, they evidently hope to have the gross defects of their style escape criticism. They clutch thoughtlessly at everything labelled "practical," announcing it as a good thing before they have properly examined it, and are continually advising others to do what they would not do themselves. They disclaim all pretensions to "the intellectual" but have somehow succeeded in crowding thinking people out of the intellectual pursuits, and as a perfectly natural consequence, the professions proper in this country, are not up to the intellectual standard of the people; and when the American intellectual and social systems succeed in shaking off these encumbrances, the nation will appear in its true light as a people of fine feelings and really speculative minds. But in the meantime we must suffer the practical results of being a little too practical.

BREEDERS' DIRECTORY.

PURCHASERS OF STOCK WILL FIND IN THIS DIRECTORY THE NAMES OF SOME OF THE MOST RELIABLE BREEDERS. OUR RATES: Six lines or less inserted in this directory at 50 cts a line per month, payable quarterly.

CATTLE.

R. ASHBURNER, Baden Station, San Mateo Co., Cal., breeder of Short-horn cattle. Pure Bred Bulls for sale, from cows of choice milking strains.

J. BREWSTER, Galt Station, Sacramento Co., Cal., breeder of Short-Horn Cattle.

J. D. CARR, Gabilan, Monterey Co., Cal., breeder of Trotting Horses, Short-Horn Cattle, Thoroughbred Spanish Marino Sheep and Swine.

A. MAILLARD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.

W. L. OVERHISER, Stockton, San Joaquin Co., Cal., breeder of Short-Horn Cattle and Berkshire Swine.

PAGE BROTHERS, 304 Davis street, San Francisco, (or Cotate Ranch, near Petaluma, Sonoma Co.): Breeders of Short-Horns and their Grades.

STANTON & POWERS, Sacramento, Cal. Breeders of Jersey Heifers and Bull Calves at low rates. Address L. C. Powers, Sacramento, Cal.

MOSES WICK, Oroville, Butte Co., Cal., breeder of Short-Horn Cattle. Young bulls for sale.

SHEEP AND GOATS.

H. F. BUCKLEY, Hopeton, Cal. Thoroughbred also $\frac{1}{4}$ and $\frac{3}{4}$ Cotswold grade sheep.

MRS. ROBERT BLACOW, Centerville, near Niles Station, Alameda Co., Cal. Pure-Blooded French Merino Sheep for sale.

THOS. BUTTERFIELD & SONS., Hollister, San Benito, Cal. Importers and breeders of Angora Goats and Sheep.

N. GILMORE, El Dorado, El Dorado Co., Cal., importer and breeder of Angora Goats.

LANDRUM & RODGERS, Watsonville, Santa Cruz County. Pure-Bred Angora Goats and Cotswold Sheep for sale.

SEVERANCE & PEET, Niles, Alameda Co., Cal., breeders of Thoroughbred Spanish Merino Sheep.

A. G. STONESEFER, Hill's Ferry, Stanislaus Co., Cal., breeder of Pure-Blooded French Merino Sheep.

L. M. SHIPPEE, Stockton, Cal. Importer and Breeder of Spanish Merino Sheep, Durham Cattle and Essex Swine.

POULTRY.

GEO. B. BAYLEY, Cor. 16th and Castro streets, Oakland, Cal. Imported Brahmas and other choice Fowls for sale.

ALBERT E. BURBANK, 43 and 44 California Market, San Francisco. Importer and breeder of Fancy Fowls, Pigeons, Rabbits, etc.

M. EYRE, Napa. Bronze Turkeys, Emden Geese, Choice Fowls, Pigeons, Rabbits, Ferrets.

WILLIAM KNOWLES, Brooklyn, Alameda Co., Cal., has for sale Eggs for Hatching, carefully packed, from pure-bred Bronze Turkeys, at \$7.50 per dozen; Brown Leghorns at \$4.00 per dozen; Houdans, White Leghorns and Buff Cochins at \$3.00 per dozen; two dozen for \$5.00. Sent C. O. D. to any address.

Mrs. L. E. McMAHAN, Dixon, Solano Co., Cal. Bronze Turkeys now ready for sale from the best imported stock; also eight varieties of choice Chickens; Eggs in season can be purchased very reasonably.

Mrs. L. J. WATKINS, Santa Clara. Premium Fowls. White Leghorn, S. S. Hamburg, Game Bantams, and Aylesbury Ducks. Also, Eggs. 21v8-3t

Live Stock Notices.

The Imported Draft Stallion, ADOLPH,

Will make the Season of 1875 at the Stable Proprietor,

COR. FOURTEENTH AND MISSION STREETS, SAN JOSE, COMMENCING MARCH 1st, AND CONTINUING FOR NINETY DAYS.

Adolph was imported from Belgium to Illinois in June, 1873, and to California in October last. He is a pure-bred Draft Horse, of the French Farnamack stock, of a dark brown color, good life, kind disposition and fine movement for a horse of his size. Is seven years old, 16 $\frac{1}{2}$ hands high, and weighs 1,650 pounds.

Terms, For the Season - - - \$25.00. Payable during the season in U. S. gold coin, or \$10 paid down and \$15 payable when mare is known to be with foal.

Mares from a distance can be kept on good pasture and cared for at \$4 per month. All accidents and escapes at the risk of the owner.

I have imported 12 head of the same stock of horses from Illinois, and invite examination and comparison with any stock of the class in the State. Four three-fourth blood stallion colts for sale. Can be seen on my farm, three and one-half miles east of the city.

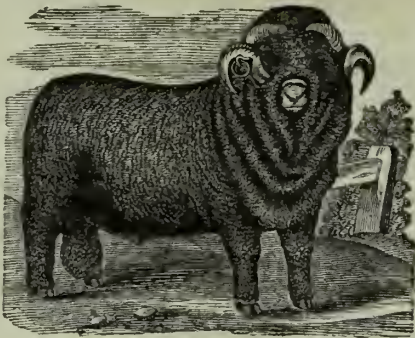
L. V. WILLITS.

Thoroughbred Spanish Merinos FOR SALE.

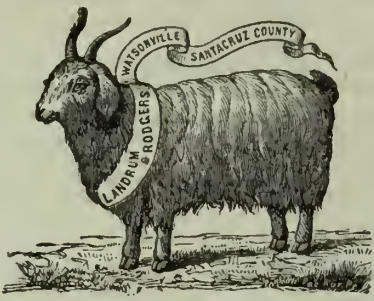
60 one and two-year old Thoroughbred Spanish Merino Rams, California bred, from Ewes imported from Vermont, and sired by Severance & Peet's Celebrated Ram "Tremont," and by their Ram "Green Mountain," which took the first premiums at the Bay District and State Fairs. Last shearing—35 $\frac{1}{2}$ lbs—years' growth.

Also, about 100 Ewes and Lambs, all of "Green Mountain" Stock, bred this year.

B. F. WATKINS,
Santa Clara, Cal.



Pure Blooded French Merino Rams
For sale by MRS. ROBERT BLACOW, of Centerville, Alameda County, Cal., near Niles Station, on the Western and Southern Pacific Railroad.
These Sheep are guaranteed of pure descent, from the French Imperial Flock at Rambouillet, and are equal, if not superior, to any of this breed in size and quality of wool, and are proved to be the heaviest shearers in the world.



We respectfully invite the attention of wool growers to our fine stock of Cotswold Sheep and Angora Goats. We have 200 head of Pure Bred Angoras to select from; we have some of the finest Goats in America; we guarantee everything we sell to be as represented; our prices are as low as any in America for the same grade of stock. Call and see, or address,

LANDRUM & RODGERS,
13v7-cow-1f Watsonville, Cal.



GABILAN HERD

Spanish Merino Sheep.

I have just purchased of Mr. George Hammond, of Vermont, three car-loads of Spanish Merino Sheep, (335 head, Ewes and Bucks) which, with others that I purchased last Fall, (also direct from Vermont) makes my band of Thoroughbred Spanish Merinos about 650 head.

I am prepared to sell both Bucks and Ewes, of Pure Blooded Spanish Merinos—as good as can be had in the World—so says Mr. Hammond. Parties interested will please give me a call. I am ten miles from Salinas City, Gabilan P. O., Monterey County.

J. D. CARR.

N. B.—I have also Good Graded Bucks for sale, and can dispose of some Good Graded Ewes. J. D. C.

12 Short-Horn Bulls,

fat and sleek, thoroughbred, just from Kentucky, at SAXE'S Stables, 35 Ritch Street, between Folsom and Harrison, two blocks from Grand Hotel. Inquire at SAXE'S Stables, or Room 32 Rms House. 3v9-3m

FOR SALE.

400 Pure Blood French Merino Rams,
On the Oristimba Ranch, six miles west of Hill's Ferry, Stanislaus County, Cal. All Rams delivered at the railroad, free of charge. Terms easy and prices liberal.

A. G. STONESEFER.

EMPIRE PARLOR MATCHES

We have imported the requisite Machinery and Chemicals to add to our previous assortment of Matches the celebrated Parlor Match, deservedly popular among families and smokers, on account of brilliant burning qualities, and absence of smell or odor. Manufactured from the best sugar pine, a wood superior to any other, and found only upon the Pacific Coast. They are full corn, and without objection of any kind. Packed in boxes of most desirable style. Brim tone and safety Matches of superior quality, manufactured, and are guaranteed to give entire satisfaction. Encourage home industry, and get superior goods at less cost than the imported article.
Ask your grocer for the EMPIRE PARLOR MATCHES, and be sure you get no others. For Sale by all Grocers.

B. BENDEL & CO.,

MANUFACTURERS, 318 FRONT STREET.

FACTORY—Corner Eleventh and Harrison streets, S. V 1v6-cow

Grangers' Business Association of California. Principal place of business, City and County of San Francisco.

Notice is hereby given, that a meeting of the Board of Directors of the Grangers' Business Association of California, held on the 7th day of April, 1875, an assessment of ten per cent, two dollars and fifty cents per share, was levied upon the capital stock of the corporation, payable May 15th, 1875, to Wm. Vanderbilt, Secretary of the Grangers' Business Association, at his office, No. 6 Leidesdorff street, San Francisco, Cal.

A stock upon which this assessment shall remain unpaid on the day fixed, to wit: May 15th, 1875, will be delinquent, and advertised for sale at public auction, and unless payment is made before, will be sold on the 16th day of June, 1875, to pay the delinquent assessment, together with costs of advertising and expenses of sale.

WILLIAM VANDERBILT,
Secretary Grangers' Business Association of California.
Office—No. 6 Leidesdorff street, San Francisco, Cal.

Miscellaneous Notices.

J. Y. WILSON. WM. FAULL W. L. MERRY

WILSON, MERRY & CO.,

Provision Packers

And Dealers in

SALTED AND SMOKED MEATS,

Lard, Etc.

PROP'S BLACK POINT PACKING HOUSE.

We respectfully call the attention of Farmers and Stock Raisers to the fact that we are always prepared to purchase hogs, cattle and sheep at full market prices, for Cash, and shall be glad to answer promptly any inquiries addressed to us on the condition of the Market.

Office No. 223 Sacramento St., Near Front, San Francisco.



ROWLANDS' ODONTO

Whitens and preserves the teeth, prevents and arrests their decay, strengthens the gums, and gives a pleasing fragrance to the breath. The success of the last seventy-five years has proved its superiority over all other preparations for the teeth. Sold everywhere by all druggists, chemists, and patent medicine dealers. Ask for Rowlands' Odonto, of 20, Hatton Garden, London, and avoid all imitations.

THE CELEBRATED H. H. H. HORSE MEDICINE

IS STILL AHEAD OF ALL OTHERS.

The Wholesale Druggists of San Francisco, give evidence of its appreciation throughout the State, by and rapidly increasing orders. We pledge it a cure for SPAVINS, WIND GALLS,

SWEENEY, SCRATCHES,

LAME AND STIFF JOINTS,

CALLONS, LUMPS,

AND ALL BLEMISHES,

SPRAINS OR BRUISES.

It is a household blessing and no family should be without a bottle in the house. For sale everywhere.

WILLIAMS & MOORE, Prop's.,

25v8-6m Stockton, Cal.



Woodland Poultry Yards.

W. J. PRATHER, - - Proprietor.

PRICE LIST:

EGGS PER DOZEN.	FOWLS PER TRIO.
Light and Dark Brahmas.....\$5 00	\$15 to \$25
Buff and Partridge Cochins.....5 00	15 to 25
White Cochins.....5 00	15 to 25
White Polands.....6 00	15 to 25
Houdans.....4 00	15 to 25
S. and G. Spangled Hamburgs.....6 00	15 to 25
White Leghorns.....4 00	12 to 20
Brown Leghorns.....6 00	15 to 25
Golden Seabright Bantams.....5 00	12 to 15
Bronze Turkeys.....8 00	PER PAIR.
Rouen Ducks.....4 00	\$30
Black Cayuga Ducks.....4 00	10
Aylesbury Ducks.....4 00	10

CALVERT'S



CARBOLIC

SHEEP WASH.

Sole Agency for California and Nevada

T. W. JACKSON'S,

416 Sacramento Street, San Francisco.

CARD.

EXCELSIOR FORCE PUMP
greatly improved. COPPER LINED BRASS VALVES AND VALVE SEATS every way equal to a BRASS PUMP. PRICES reduced. Send for Circular. BRITTAN, HOLBROOK & CO., Agents.

SUPPORT HOME INDUSTRY.

WHEATEN STARCH,

MANUFACTURED BY

J. JOHNSTON.

SAN JOSE, - - - CALIFORNIA.

This starch is made from the best of wheat, and is used by the laundries and hotels, who pronounce it Superior in Strength and Fine Satin Gloss to any imported starch—one pound being equal to one and a half pounds of Eastern starch.

Commission Merchants.



H. K. CUMMINGS. 1858. H. H. BALSTON. 1875.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission House,

ESTABLISHED 1858.

No. 424 Battery street, southeast corner of Washington, San Francisco.

Our business being exclusively Commission, we have no interests that will conflict with the use of the producer. 4v23-1y

MOODY & FARISH,

Wool Commission Merchants,

No. 210 Davis Street, S. F.

Eureka Glycerine and Carbolic Sheep Dip; Sheep Shears; Wool Sacks and Twine constantly on hand at low prices.

Davis & Sutton, Commission Merchants,

For California Fruits; also for the sale of Butter, Eggs, Cheese, Hops, Green and Dried Fruits, etc., 75 Warren street, New York. Refer to Anthony Halsey, Cashier, Traders' National Bank, N. Y.; Ellwanger & Barry, Rochester, N. Y.; O. W. Reed, Sacramento, Cal.; A. Lusk & Co., Pacific Fruit Market, San Francisco, Cal.

For Bleaching or Washing In Cold or Warm Water.

FALKINBURGH & CO'S

GRANGER SOAP

HAS NO EQUAL.

Don't fail to give it a trial, and be assured of a saving of money, time and labor. It speaks for itself. Warranted to accomplish more and do greater execution than any other soap. It is pressed, wrapped and perfumed.

ONCE USED, ALWAYS USED.

Sold by the principal Grocers throughout the country. Manufactured by

FALKINBURGH & CO.,

Oregon St., below Front, bet. Washington and Jackson, San Francisco, Cal. 4v9-10p

SEEDS. PLANTS.

OF EVERY VARIETY.

Fresh and reliable, such as experience and care only can select.

GRASS AND CLOVER SEEDS, KENTUCKY BLUE GRASS, HUNGARIAN, ORCHARD, ITALIAN RYE, RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL, CHOICE CALIFORNIA ALFALFA, WHITE CLOVER, RED CLOVER, Etc.

Also, RAME, JUTE AND TOBACCO SEEDS; together with a fine and complete collection of TREE SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGANTEA, PINUS INSIGNIS, Etc.

For Sale, wholesale or retail, by

B. F. WELLINGTON,

(Successor to E. E. Moore).

425 Washington St., San Francisco. 2v7-1y

FARM HANDS.

The Grangers' Scandinavian American Employment Office

Has been removed from 6 Leidesdorff to 608 Clay street, and Consolidated with the Pacific Coast Employment Office. This office is in constant communication with Grange Headquarters, and is the only one in the city conducted by members of the Order. Our facilities for furnishing MALE and FEMALE help of all kinds are unequalled by any office in the city. Great care taken to select reliable help. Chinese Orders for servants, in door and out, promptly filled.

In ordering help, be particular in describing work, wages, fare, etc., Real Estate and General Business Agency.

PHILIPS & FLIGGLE.

The Employment Office of Talbot & Co. has no connection whatever with the Granges.

I. G. GARDNER.



5,500 ACRES

Of the best portion of the old NOMELOCKEE RESERVATION, in Tehama County, for sale very low; only five dollars per acre; one-third down, one-third in one year and one-third in two years, with interest at one per cent per month. Will be sold all together or in two parcels. This is one of the finest tracts of grazing land in Northern California; is abundantly watered by numerous perpetual springs and has two miles of the Elk Creek, a clear mountain stream. Its grass never fails from drought, and is of the best quality for sheep and has no clover burr. 800 acres of level plow land; timber for posts, fuel, etc. Enquire of ALLEN WILCOX, Los Angeles, or F. B. WASHINGTON on the tract, twenty miles west of Tehama.

Banking.

Grangers' Bank of California

INCORPORATED APRIL 27th, 1874.

Capital \$5,000,000, in 50,000 Shares
of \$100 each.

Directors:

PRESIDENT—JONATHAN V. WEBSTER..... Alameda
V. PRESIDENT—C. J. CRESSEY..... Stanislaus County
THOMAS McCONNELL..... Sacramento
JOHN G. HILL..... Ventura County
J. V. WEBSTER..... Alameda County
JUSTICE C. MERRYFIELD..... Solano County
J. LEWELLIN..... Napa County
GILBERT W. COLBY..... Butte County
J. P. CHRISMAN..... Contra Costa County
F. J. WOODWARD..... San Joaquin County
C. S. ABBOTT..... Monterey County
F. A. CRESSEY..... Secretary.

Office, 415 California Street,

SAN FRANCISCO. - - CALIFORNIA

The Bank was opened on the first of August, 1874, for the transaction of ordinary Banking business.

Current Accounts are opened and conducted in the usual way, and interest at the rate of $\frac{1}{2}$ per cent per month is allowed on the minimum monthly balance.

Deposit Receipts in sums of \$50 and upward received, and receipts given for the amounts, repayable on 30 days' notice of withdrawal. These deposits bear interest at rates varying with the current rate of discount.

Deposits for Fixed Periods are received, and interest allowed at the following rates: Three months, 6 per cent.; Six months, 7 per cent.; One year, 8 per cent. A share of the patronage of the public is solicited.

Anglo-Californian Bank.

LIMITED.

Successors to J. Seligman & Co.

London Office.....No. 3 Angel Court
San Francisco Office.....No. 412 California street.

Authorized Capital Stock, \$6,000,000,

Subscribed, \$3,000,000. Paid in, \$1,500,000.
Remainder subject to call.

DIRECTORS IN LONDON—Hon. Hugh McCulloch, Renben D. Sassoon, William F. Scholfield, Isaac Seligman, Julius Singleton.

MANAGERS:

F. F. LOW and IGNATZ STEINHART,
SAN FRANCISCO.

The Bank is now prepared to open accounts, receive deposits, make collections, buy and sell Exchange, and issue Letters of Credit available throughout the world, and to loan money on proper securities. 2v27-cowbp

Insurance Companies.

California Farmers Mutual
Fire Insurance Association.

Office, 6 Leidesdorff St., - San Francisco.

Directors:

A. WOLF, A. W. THOMPSON, I. C. STEELE,
I. G. GARDNER, J. C. MERRYFIELD, J. D. BLANCHARD,
G. P. KELLOGG, Treas.

Finance Committee:

I. G. GARDNER, J. C. MERRYFIELD, A. W. THOMPSON

Trustees:

J. M. HAMILTON, Lake Co. I. C. STEELE, San Mateo Co
J. C. MERRYFIELD, Solano Co. A. B. NALLEY, Sonoma Co
G. W. COLBY, - Butte Co. O. S. ABBOTT, S'ta Bar'ta Co
H. B. JOLLEY, - Merced Co. A. W. THOMPSON, Sonoma Co
A. WOLF, San Joaquin Co. E. W. STEELE, S.L. Ohispo Co
J. D. BLANCHARD, Pres't. W. H. BAXTER, Sec'y.

This association is organized for the purpose of affording the farmers of this State the means of safely insuring against loss by fire, at actual cost of insurance, without being connected with city risks. a822-4f

The Pacific Mutual Life Insurance
Company of California.

No. 41 Second street, - - Sacramento

ACCUMULATED FUND, NEARLY

\$1,250,000.00.

\$100,000 Approved Securities, deposited with the California State Department as security for Policy holders everywhere.

LELAND STANFORD.....Presiden
J. H. CARROLL.....Vice-President
JOS. CRACKBON.....Secretary

All Policies issued by this Company, and the proceeds thereof, are exempt from execution by the laws of California. THE ONLY STATE IN THE UNION that provides for this exemption.

Polices issued by this Company are non-forfeitable, and all profits are divided among the insured. Policies may be made payable in Gold or Currency, as the applicant may elect, to pay his premium.

Executive Committee:

LELAND STANFORD, J. H. CARROLL,
ROBT. HAMILTON, SAMUEL LAVENSON,
JAS. CAROLAN.

SCHREIBER & HOWELL,

II-29-cow-bp-3m General Agents, Sacramento.

Geo. W. Chapin, Real Estate Agent, 434 Montgomery St., San Francisco, has and sells Ranches in all parts of the State. City Real Estate exchanged for country Pro per by. MONEY LOANED. Post Office Box 1122

PUMPS.

"PEOPLE'S PUMP."

THE FARMERS' FRIEND.

BEST IN USE FOR HOUSE AND STOCK PURPOSES. CAN
BE USED WITH HOSE FOR WASHING

WAGONS, WINDOWS, AND

WETTING GROUNDS.

SEND FOR CIRCULAR.

DUNHAM, CARRIGAN, & CO.,

Successors to

Conroy, O'Connor & Co.,

eow

San Francisco

BOWEN'S PREMIUM YEAST POWDER.

Bowen's Premium Yeast Powder.

Bowen's Premium Yeast Powder.

Bowen's Premium Yeast Powder.

Bowen's Premium Yeast Powder.

Best in the World! Every Can Guaranteed!!

For Sale in Every Village, Town and City on the Pacific Coast.

Ask Your Grocer for It.

Manuf'd by BOWEN BROS., 432 Pine St., S. F., and 11th & 12th Sts., Oakland.

IRON PIPE.

Pipe Fittings & Brass Goods,

AT BOTTOM PRICES.

JAMES L. BARKER,

406 & 408 Market street, S. F.,

HARDWARE AND METAL

Commission Merchant.

Orders by mail will receive prompt attention
mrl3-cow-bp

14 GMG OZ.

STEARIC ACID
CANDLES
GEO. M. GRANT & CO.
PHILADELPHIA.

The Candles sold under the above well known "brand" are made only of Pure Stearic Acid, twice hydraulic pressed, are not cheapened by adulteration with crude material, and upon burning, give a large and brilliant flame, without running. 13v9-2ampb

AMMONIA!

For Washing and Cleaning Purposes.

For Sale by all Grocers.

This article is universally used in Europe, and, recently introduced for general family use in San Francisco and neighborhood, is already in great demand. It is now the intention of the manufacturers to introduce it all over the Pacific Coast, at prices which will bring it within the reach of every household.

It is unequalled for cleansing Woolen Fabrics, Cutlery, Carpet or Crockery; for Scrubbing Floors, Washing Paint, Removing Grease Spots, Shampooing or Bathing. It renders water soft, and imparts a delightful sense of coolness after washing.

DIRECTIONS.—For Laundry, use two to four tablespoonfuls to a wash-tub of water. For bathing, use one table-spoonful in the bath tub. For removing grease spots, apply with a brush, undiluted, and wash with water afterward. For stimulating the growth of plants, use a few drops in every pint of water used in watering.

PRICE.—Per Pint Bottle, 25 cents; per quart Quart Bottle, 40 cents; per Half Gallon, 75 cents. Also, SULPHATE OF AMMONIA for chemical purposes, fertilizing and the preparation of artificial manures. AMMONIACAL PREPARATION for the prevention and removal of boiler scale. CRUDE AMMONIA for general manufacturing and PUR. LIQUOR and AQUA AMMONIA for chemical and pharmaceutical purposes. Manufactured by the

SAN FRANCISCO GAS-LIGHT CO.

eowbp

Averill Chemical Paint,

MANUFACTURED BY THE

Cal. Chemical Paint Co.

PURE WHITE, AND ANY SHADE OR COLOR.

This Paint is prepared in liquid form, READY FOR APPLICATION—requiring no thinner or dryer, and will not spoil by standing any length of time.

It is Cheaper, more durable, more Elastic, and produces a more Beautiful Finish than the best of any other Paint.

It will not Fade, Chalk, Crack, or Peel off, and will last twice as long as any other Paint.

In ordering White, state whether for Outside or Inside use, as we manufacture an Inside White (Flat) for inside use, which will not turn yellow, and produces a finish superior to any other White known.

Put up in $\frac{1}{2}$, 1, 2 and 5 gallon packages, and in Barrels. Sold by the Gallon.

For further information send for Sample Card and Price List, or apply to the office.

OFFICE AND DEPOT:

FACTORY:

117 Pine Street, near Front. Cor. 4th & Townsend Sts.

3v9-cow-bp-ly

SAN FRANCISCO, CAL.

Books Published by

A. ROMAN & CO.,

SAN FRANCISCO.

THE RESOURCES OF CALIFORNIA. By John S. Hittell. Sixth Edition, rewritten. "The most complete and comprehensive work of the kind."

One volume, 12mo., cloth.....\$1 75

One volume, 12mo., paper.....1 25

NEVADA AND CALIFORNIA PROCESSES OF GOLD AND SILVER EXTRACTION. By Guido Kustel. The best practical work on the subject.

8vo., cloth.....4 00

8vo., leather.....5 00

LEGAL TITLES TO MINING CLAIMS AND WATER RIGHTS IN CALIFORNIA. By Gregory Yale. 8vo., leather.....5 00

TREATISE ON SILK AND TEA CULTURE AND OTHER ASIATIC INDUSTRIES, Adapted to the soil and climate of California. By T. A. Kendo. 12mo., cloth.....50

SULPHURETS. What they are, how Concentrated, how Assayed, and how Worked, with a chapter on the Blow-pipe Assay of minerals. By Wm. Barstow, M. D. 12mo., cloth.....1

A liberal discount to Booksellers and Newsdealers from the above prices.

Any of the above works will be sent, postage prepaid, on the receipt of the price, by the publishers,

A. ROMAN & CO., No. 11 Montgomery St., S. F.

eow-hp

ARMES & DALLAM,

WHOLESALE DEALERS IN

WOOD AND WILLOW WARE

Baskets, Brushes and Twines,

Clothes Wringers,

Doty's Washing Machines,

AND

GENERAL HOUSE FURNISHING GOODS

And Manufacturers of

BROOMS, PAILS, TUBS, WASHBOARDS,

DASH,

CYLINDER,

THERMOMETER,

AND SQUARE BOX

CHURNS,

215 and 217 Sacramento St., San Francisco.

THE BOOKWALTER ENGINE.

Effective, Simple, Durable and Cheap.

The want of a small Portable Engine and Boiler, so constructed as to be furnished at a price within the reach of every one, has long been felt. This has been accomplished in the Bookwalter Engine, an engine which for Effectiveness, Simplicity, Durability and Cheapness, can not be surpassed.

For processes requiring light power, such as wood-sawing, running cotton gins, elevators, printing presses or cheese factories, pumping water, a large variety of farm work, and in fact all light manufacturing purposes, this engine is expressly adapted, both in construction and cost.

Prices, delivered at the Railroad Depot, San Francisco:

3-Horse Power.....\$290 00
4½-Horse Power.....350 00

FOR SALE BY

AUZERAIS & POMEROY,

SAN JOSE, CAL.

LAND PLASTER.

(Sulphate of Lime.)

This fertilizer is especially well adapted to California lands and climate, and is destined to be used to immense advantage.

PRICES GREATLY REDUCED.

In bulk, \$10 per ton; in barrels or bags, \$12.50.

Golden Gate Plaster Mills.

LUCAS GESNER & CO.,

215 and 217 MAIN STREET, SAN FRANCISCO.

THE PACIFIC COAST
12 Per Cent.
CONSOLS.

Interest Payable Monthly, in Gold and Silver.

A MINING, REAL ESTATE AND LAND COMPANY.

Incorporated February 12th, 1875.

Capital Stock, - - - \$27,000,000,

IN CONSOL SHARES OF \$1 EACH,

Of which 13,500,000 shares constitute the Sinking and Investment Fund. Interest payable monthly at the rate of 12 per cent. per annum. Certificates of CONSOLS shares receivable at their par value in exchange for any Mining, Real Estate or Landed Property of the Company.

Directors:

T. PHELPS, W. S. REYNOLDS,
B. M. FETTER, L. K. GOODMAN,
J. H. BATES.

Certificates of CONSOLS only issued at the rate and proportion of 50 per cent. of the cash valuation of property to be represented in CONSOLS shares. Dividend paid from profits and sales of property, and only on shares of CONSOLS that have been issued for property valued and entered on the books of the Company.

Principal Office, 526 Kearny Street.

Principal Depository Agency, — Bank, San Francisco.

Depository Agencies for payment of interest on CONSOLS will be established in the principal cities in the United States and Canadas, and in London, as when required.

Interest payable on the 5th of each month at any Depository Agency of the Company.

Certificates of interest-bearing CONSOLS, Class A, First Series, issued for Mining Property in Washoe, Storey and Lyon counties and on the Comstock Lode, in Nevada, will be ready for delivery to subscribers and purchasers on or before April 10th 1875.

Orders for not less than one hundred shares of CONSOLS, with the purchase money required (\$1 per share), may be sent through Wells, Fargo & Co.'s, at our expense. No certificate of stock issued for less than twenty shares. All orders must be addressed, "Office of the CONSOLS M. R. E. and L. Company, 526 Kearny street, San Francisco."

T. PHELPS, President.
W. S. REYNOLDS, Secretary.

apr3-sa-hp

ERNEST L. RANSOME,

Artificial Stone Manufacturer,

No. 10 Bush Street, San Francisco,

Office Hours 1 to 2 Daily.

GRINDSTONES at 3, 2½ and 1 cent per pound according to quality. In ordering state for what purpose the stone is needed.

"I have used one of your grindstones for some time, and it is the best I ever had." F. J. CUREX,
November 20, 1874. Prop. S. F. Boiler Works.

EMERY STONES, VASES AND FOUNTAINS, GRAVESTONES AND CEMENTERY WORK. STONE DRESSINGS GENERALLY. NATURAL STONE HARDENED AND PRESERVED. SILICATE OF SODA for Soap Makers and Laundrymen, &c.

PORTLAND CEMENT for Sale in Lots to Suit. Send or Price-List. eow-bp

ALEX. BUSWELL,

BOOK BINDER, PAPER RULER

AND BLANK BOOK MANUFACTURER.

521 Clay Street, S. F.

Blank Books Ruled, Printed and Bound to Order

More Enquiries From Abroad.

Following is another of the many letters of enquiries addressed to us by parties who wish to obtain all available information about California with a view of emigrating hither.

We take in hand to-day one from Thomas W. Noland, White Church, Wyandotte county, Kansas, who propounds the following questions, which we proceed to answer, according to request, in the order in which they occur:

"How much capital is wanted to commence farming there?"

This is one of those vague questions which do not admit of any definite answer. If a man has but \$500, or even less, he could commence farming in California under some situations, or he could expend \$25,000 in commencing farming under certain other circumstances. It depends altogether on the gauge of his aspirations.

"How are we off for churches and schools?"

We are aware that we should at once lay our selves open to adverse criticism were we to venture to use the slang term "bully" in connection with the subjects of religion and education, but confess this temptation was never stronger upon us than in giving an answer to this question; for we claim that we are not surpassed by any State in the Union in the number and character of our churches and schools.

"What can a man buy good raw land for, so that he could make a good farm with timber and water, and what part of the State would you advise a man to visit, etc.?"

We would advise you to visit the foothills in search of such a place. Go to Nevada county, for instance, which is rich in timber, is tolerably well supplied with water, has many cozy nooks that might be converted into good little farms, and where land might now be bought, probably, at from \$10 to \$50 per acre. But in this connection we would take occasion to point out the impracticability of fixing valuations on California lands; for, in the first place, the fluctuating tide of immigration necessarily produces a corresponding fluctuation in the price of land; then, in mining districts—and let us tell you here that these districts present many desirable locations to farm hunters—the price of land goes up or down according to the paying capacity of the neighboring mines; while in the agricultural districts the projection or completion of irrigating canals or ditches, or the supposed course of prospective railroads will often entirely revolutionize former schedules of prices of land. Those who make enquiries about the price of land in this, or any other new country, should consider these contingencies.

"What terms of fare can be had for families coming to California?"

We have made enquiries on this point, and learn that the following rates were recently effected for a number of families from Omaha, sufficient to occupy a car: From Omaha to San Francisco, first-class, without sleeping car privileges, \$90 per ticket; from Omaha to Los Angeles, second-class, \$67. Our Kansas friend may form some estimate from this. Families intending to come to California should communicate, and combine in these matters for the sake of economy and comfort.

"How we advise a man to bring any live stock?"

No, emphatically. Do not bring any kind. Stock is cheap in this country, and the little money that you derive from the sale of what you have at home would replace it here with just such stock as your new situation requires; whereas a portion of that which you would bring along with you might prove a mere incumbrance here.

"How are times in regard to money?"

Here we come to a point which we would like to dilate a little, it being an important one, and one which is imperfectly understood by Eastern people; and by Californians too, as to that. Because California has escaped the periodic monetary panics that have swept over other portions of the country, it is too generally supposed that trade here is exempt from reverses. This is not so. The laws of trade are as immutable here as elsewhere, and human nature is as much inclined to go counter to them here as at the East; and the consequences of this violation are as inevitable, taking, however, a different form in our case. The usual course of Eastern trade is, a series of years, more or less, of fair weather and lively winds, followed by a season or two of dead calm, which is finally broken by a terrific storm, from which none but the most skillfully managed crafts escape. The reverses of trade in this country are probably as numerous and disastrous in the main, but the regularity of their occurrence makes them less noticeable than in the periodic disasters of Eastern trade. Men are continually going under in the current of trade here—yet and of farming, too—but they don't stay under, as at the East. They are continually reappearing upon the surface; so that a man has really a far better chance here to show what metal he is made of than in countries where if he goes down he is expected to stay down. At present times are good and money is plenty; in fact, we never hear the whining about dull times that is so prevalent at the East.

"What are lands worth in Russian River valley?"

They are worth from \$20 to \$50 per acre.

"Are the secret orders of Masonry and Odd Fellowship working well in your State?"

Yes, decidedly. They could not be otherwise, being formed of the best social material in the country. They are independent, non-aggressive, and are doing a vast amount of good in an unostentatious manner.

We would state for the benefit of our Kansas friends that John Edwin Martin, of Wichita, Kansas, is getting up a colony to come to California. They expect to start in thirty to sixty days.

Industrial Items.

THE California wool clipping and machine manufacturing company has been incorporated. The object of the corporation is to contract for clipping, trading in wool and the manufacture of wool clipping machines.

THE Consolidated tobacco company are largely increasing their facilities for manufacturing at Gilroy. By the addition now making the company will be able to manufacture 1,750,000 cigars every month.

COLONEL DONAHUE offers to build his railroad to San Rafael, if the people at that place will cut a tunnel through the hill at the *puerto suello*, at their own expense, an item of \$50,000.

THE Nevada State Journal says that Mackey & Fair, the great Comstock millionaires, contemplate building a narrow-gauge railroad from Virginia City to Reno.

The Eureka (Nev.) Sentinel declares the construction of a narrow gauge railroad from that place to Ruby Hill a settled fact.

THE citizens of Modesto had a meeting last week and inaugurated a plan for the establishment of water works in town.

SILK ribbon in large quantities are now being manufactured at the Union Pacific silk mills in South San Francisco.

THE machinery for the Petaluma woolen mill has arrived from the East and will be put up immediately.

THE Donahue railroad company is fitting up a most elegant train of cars that will be ready for service about the time the new steamer goes on the route.

Goods to the amount of \$10,000 are turned out each month at the Stockton woolen mill.

A MANUFACTORY of agricultural implements is soon to be started in Stockton.

MR. H. C. YERBY, of Yolo, has sold his 800 acre ranch near that place to B. F. Peart, of San Francisco. Consideration, \$32,000.

GRASSHOPPERS are making their appearance in the vicinity of White river, and other localities in Tulare county.

THERE are 450 acres of land in Mendocino county devoted to hop culture—double what there was last year.

THE frost did but little damage to the fruit on Sherman island, and the grain fields are in excellent condition.

THE San Mateo Times thinks early potatoes have been badly injured by the late frosts along the coast.

Coming Fairs and Exhibitions.

[Officers of industrial societies will please inform us of their approaching fairs and exhibitions.]

The Centennial International Exhibition, at Fairmount Park, Philadelphia, will open on the 19th of April, 1876, and close on the 18th of October following.

International Exhibition of Chili, Santiago, will open nominally August 15, 1875, continuing until April 2, 1876. Officially from September 16, 1875, to January 1, 1876. Articles for exhibition may be entered at any time from the 15th of August to the 16th of September and can remain on exhibition if the exhibitor so desires until the 2d of April following.

Tenth Industrial Exhibition of the Mechanics' Institute of San Francisco, commencing Tuesday, August 17, 1875, to continue open at least one month.

American Pomological Society, Fifteenth session, at Chicago, Wednesday, September 8, 1875, continuing for three days.

The Alabama State Grange Fair, at Selma, Alabama, Tuesday, October 26, 1875, continuing five days.

PATENTS & INVENTIONS.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

[FROM OFFICIAL REPORTS FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.]

By Special Dispatch, Dated Washington, D. C., April 20, 1875.

FOR WEEK ENDING APRIL 6.

BOOT CLAMP FOR BOOT-BLACKS.—Orin Collier, Sacramento, Cal.

SCUTTLE ELEVATOR.—Ferdinand A. Smith, Portland, Oregon.

AERIAL TOY.—Peter B. Fernandez, S. F., Cal.

AERIAL AND MARINE GRABATOR.—Peter B. Fernandez, S. F., Cal.

BRUSH AND MOP-HOLDING DEVICE.—Richard C. May, Sacramento, Cal.

TRADE-MARK.

FOR LIFE OINTMENT.—William Ostrander & Co., Watsonville, Cal.

"The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue. Note.—Copies of U. S. and Foreign Patents furnished by DEWEY & CO. in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with perfect security and in the shortest possible time.

The Russell End-Shake Thresher.

Read what Farmers and Threshers Think of it.

1959 SACKS IN 12 HOURS!

CASTROVILLE, Cal., February 13th.

MR. LAUFENBURG—Dear Sir: I have been in the threshing business twelve years. I was always bothered, more or less, in cleaning as fast as I could thresh, until I put in your Patent Shoe, and now I have had no trouble in cleaning all the grain that I could get to the machine. I think it is the greatest improvement ever put into a machine. I put one into my three machines in 1869, and they work with less power, and a great deal easier to the Separator. It takes all the side shake off, and there is less shaking of the machine. They will clean faster and better than the old Shoe. One of my machines which has your Shoe would clean 3,000 sacks without clogging in the least. I consider them \$500 advantage in one season's work, and even more. They can be taken up and set down in a great deal less time than the old. A machine will also last longer, there being no jar to wrench it. I have threshed, in six days, 7,200 sacks, and in one day made a run of twelve hours, less five minutes, and threshed 1,959 sacks. We weighed four sacks at the machine, which averaged 112 pounds to the sack. This was done in one of the wettest days of the season, and part of the grain was very poor; but it did not clog the sieve in the least—it kept perfectly clear, and did not blow over any more than it would in common threshing.

Yours truly, E. J. PRESTON.

CASTROVILLE, March 19th, 1870.

E. J. Preston makes oath before me that the above statements are true.

E. J. WILLIAMS, Justice of the Peace.

THE "FEEDER" THAT RUN THROUGH THE 1959 SACKS.

CASTROVILLE, Cal., February 13th.

MR. LAUFENBURG—Sir: I received your note, and in reply I would say that I think your Patent Shoe is one of the best improvements ever made on threshing machines. I was head feeder on the "Old Red" that threshed 1,930 sacks, averaging 112 pounds; and of my own barley, at Moss Landing, I threshed 1,690 sacks in one day, and 1,500 the next. The sacks averaged 100 pounds. It was all cleaned well, and I never had the sieves clog. Yours respectfully, A. HALL.

Our Agents.

OUR FRIENDS can do much in aid of our paper and the cause of practical knowledge and science, by assisting Agents in their labors of canvassing, by lending their influence and encouraging favors. We intend to send none but worthy men.

J. L. THARP—San Francisco.
B. W. CROWELL—California.
A. C. CHAMBERLAIN—Tulare, Fresno and Inyo Counties.
D. J. JAMES—Australian Colonies.
J. C. EWING—Contra Costa County.
JOHN ROSTRAN—Sonoma County.
W. C. QUINBY—Eastern and Western States.
B. E. LLOYD—Nevada and Placer Counties.
B. GOODWIN—California.
A. C. KNOX—Southern California.
G. W. MCGREW, Santa Clara county.
L. P. MCCARTY, California.
H. D. MORGAN, Santa Cruz County.

ONE of our most valued exchanges is the PACIFIC RURAL PRESS, published by Dewey & Co., San Francisco, California. Every number contains a large amount of general news from the far west, besides much valuable information in the way of Grange news.—The Farmer's Friend, Mechanicsburg, Pa.

WOODWARD'S GARDENS embraces an Aquarium, Museum, Art Gallery, Conservatories, Tropical Houses, Menagerie, Seal Ponds and Skating Rink.

THE ALDEN FRUIT PRESERVING COMPANY, OF CALIFORNIA.

OFFICE, 426 MONTGOMERY ST., S. F.

Our improved apparatus will do one-third more work than that erected last season, while our prices have been materially reduced. A portion of the purchase money may be paid in the products of the Alden factories. We guarantee against infringements. The Alden is the oldest, the best and the cheapest process known for preserving fruits, vegetables, meats, etc.

It would be unwise to purchase the new and untried dryers before they have demonstrated their superiority by at least one year's regular work. Send for our circulars.

SANBORN & BYRNES.



Mechanics' Mills, Mission Street.

Bet. First and Fremont, San Francisco. Orders from the country promptly attended to. All kinds of Stair Material furnished to order. Wood and Ivory Turners. Billiard Balls and Ten Pins, Fancy Newala and Balusters. 2578-8m-bp

Grangers' Bank of California.

(Incorporated April 27th, 1874.)

Offices, 415 California street, San Francisco.

CAPITAL authorized, \$5,000,000, in 50,000 shares of \$100 each. Subscribed, \$2,568,700. (Number of shareholders, 1,571). Paid up, \$481,200.

DIRECTORS—J. V. WEBSTER, President; CALVIN J. CRESSEY, Vice-President; C. S. ABBOTT, J. P. CHESMAN, G. W. COLBY, J. H. HILL, J. LEWELLYN, THOS. MCCONNELL, J. C. MERRYFIELD, A. F. WALCOTT, F. J. WOODWARD.

OFFICERS—Managing Director, CALVIN J. CRESSEY; Cashier, ALEXANDER WATSON; Secretary, FRANK J. CRESSEY.

The bank was opened on the 1st of August, 1874, for the purpose of affording additional banking facilities to the producers of the State, and for the transaction of ordinary banking business.

CURRENT ACCOUNTS are open and conducted in the usual way, and interest allowed on the minimum monthly balance at the rate of three per cent. per annum.

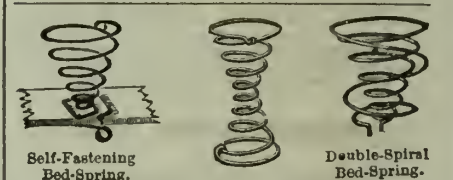
CERTIFICATES OF DEPOSIT are issued in sums of \$50 and upwards, payable on 30 days' notice of withdrawal, bearing interest at rates varying with the current rate of discount.

TERM DEPOSITS are received in gold, silver or currency, and interest allowed as follows, namely: Three months, six per cent. per annum; six months, seven per cent. per annum; one year, eight per cent. per annum.

COLLECTIONS are made throughout the State on the most favorable terms.

DISCOUNTS—The bank advances on real estate in the different counties, on merchandise and grain in warehouses, etc., with a fair margin, charging a uniform rate of one per cent. per month.

ALEXANDER WATSON, Cashier.



We manufacture all sizes of BED and FURNITURE SPRINGS, from No. 7 to the smallest Pillow Spring; also, the Double Spiral Spring, which is the most durable Bed Spring in use. It is adapted to upholstered or skeleton beds. We have the sole right in this State to make the celebrated Obermann Self-Fastening Bed Spring. Any man can make his own spring bed with them. They are particularly adapted to Farmers' and Miners' use. Send for Circulars and Price List to

WARNER & SILSBY,

137-27 -cow-bp-5m 147 New Montgomery St., S.

J. M. NEVILLE.

G. H. BRYANT

NEVILLE & CO'S FACTORY

113 Clay and 114 Commercial Sts.,
SAN FRANCISCO.

BAGS of All Kinds,
TENTS, All Sizes and Descriptions.
HOSE for Hydraulic Use.
CANVAS, All Numbers.
TWINE for Sewing, Etc.

GREAT EASTERN AND WESTERN

Horse and Mule Market,

Cor. Fifth & Bryant Streets, San Francisco.

A choice stock of Carriage, Draft and Farm Horses on hand, and constantly being received from the East. All classes of Horses and Mules purchased and sold.

WASHBURN & RAN DALL, Props

Hooper's South End Grain Warehouse

Japan and Townsend Streets.

SAN FRANCISCO, July, 1874.
I herewith inform you I have leased the above first-class Fire-Proof Brick Warehouse, now being erected by Geo. F. Hooper, Esq., and will be ready to receive storage on the 1st of August. This warehouse offers superior inducements to parties desiring to store grain and flour, as it is situated on the Water Front, and on the line of the O. P. R. R. and S. F. R. R. It is well ventilated, rat proof, and combines all the modern advantages and improvements. Yours respectfully, JOHN JENNINGS.
Advances and insurance effected at the lowest rates. Storage taken at lowest current rates. 478-ft

LOCKE & MONTAGUE,

IMPORTERS OF

Stoves, Ranges,

Tin Plate, Sheet Iron, Iron Pipe,

House Furnishing Hardware,

Plain Japanned,

Planished and Stamped

TIN WARE,

112 and 114 Battery Street,

SAN FRANCISCO.

METALS.

Apply to

MRS. ROWLANDSON,
On the Premises San Antonio C

Nurserymen.

1875. Established 1857. 1875.

Capital Nursery and Seed House

W. R. SMOON and ROBERT WILLIAMSON, Proprietors, having united their interests in the Seed and Tree business, offer to the public the largest and finest growth of both Seeds and Trees ever offered to the California public, of their own production, and also from the largest and most reliable houses of the Eastern States and Europe, all of which we offer as low as Eastern Dealers.

TREES. TREES. TREES.

Fruit, Shade, Ornamental, Evergreen, etc., raised in our Nurseries of the very best varieties. Dealers and Growers furnished at very lowest rates. Among our numerous varieties we call especial attention to BRIGGS' RED MAY PEACH, the earliest known, large, handsome of excellent flavor and good shipper.

SEEDS. SEEDS. SEEDS.

Vegetable, Flower, Field and Tree Seeds, and Flowering Bulbs and Plants.

100,000 pounds Finest Quality California ALFALFA, RED AND WHITE CLOVER, KENTUCKY BLUE GRASS, RYE GRASS, ORCHARD GRASS, VERNAL GRASS, MESQUIT GRASS, TIMOTHY, RED-TOP GRASS, and every other Grass adapted to the Pacific States and Territories.

All the finer qualities of our Seeds will be forwarded by mail (post-paid) to customers at Catalogue rates, on receipt of money, which can be sent by postal orders or registered letters, or express, at our risk.

CATALOGUES AND PRICE LISTS on application, and forwarded by mail.

WAREHOUSE, 8 and 10 J street. NURSERIES, U street, SACRAMENTO CITY. TREE YARD, 1 street, next to Library Building.

W. R. STRONG & CO.

Established 1853.

Stocks for Nurserymen.

Plum Seedlings, Mirobolan, the best French stock, does not sucker.....	\$50 per 1000
Apple Seedlings.....	10 per 1000
Pear Seedlings.....	10 per 1000
Cherry Seedlings, Mazzard.....	12 per 1000
Cherry Seedlings, Mahaleb.....	20 per 1000
Walnuts, English, 4 to 6 feet.....	15 per 100
Cork Elm, best Elm, 4 to 6 feet.....	15 per 100
Blue Gum or Eucalyptus, in variety.....	5 to 10 per 100

Magnolia Grandiflora.....	
Magnolia Acuminata.....	
Magnolia Tripetala.....	
Golden Arborvitae.....	
Crataegus Arbutifolia.....	
Swedish Juniper.....	
Irish Juniper.....	
Heath-leaved Arborvitae.....	
Heath, Mediterranean.....	\$2 50 per doz.
Laurustinus, 6 to 12 in.....	2 50 per doz.

LARGE STOCK

Making the growth of Oranges and Lemons a specialty, I have imported from all sources the best known varieties, and now offer five thousand Grafted Trees properly worked and twice transplanted at \$18 per dozen. Grafted oranges by the 100 or 1,000 at prices on application. The amateur in want of large PALMS, large AURICARIAS, large CAMELIAS and large TREE FERNS, a good stock on hand; also the usual large stock of fruit and ornamental trees.

BERNARD S. FOX,

San Jose, Cal.

THOS. MEHERIN, Agent, 516 Battery Street, San Francisco. 24v8-8

ESTABLISHED IN 1852.

THE STOCKTON NURSERY

I have for sale for the ensuing season a Large and Well Grown Stock of All Varieties of

FRUIT TREES, SHADE, ORNAMENTAL and EVERGREEN TREES,

GREENHOUSE PLANTS, AUSTRALIAN GUMS, SHRUBS, ROSES, BULBS, PALMS.

Send for Catalogue.

W. B. WEST, Stockton, Cal.

F. LUDEMANN. RUD. MIK-ELSEN.

PACIFIC NURSERY,

Baker St., Between Lombard and Chestnut San Francisco, Cal.

P. O. Box 475.

We offer this Season a Large and Complete Selection of Well Grown

EVERGREEN AND DECIDUOUS TREES AND SHRUBS, FLOWERING AND ORNAMENTAL PLANTS

At very reasonable Prices. Our Descriptive Catalogue of Evergreens and Deciduous Trees and Shrubs, and our Wholesale Trade List (For Dealers and Nurserymen) will be sent on application. All Orders promptly filled.

F. LUDEMANN & CO.

KING'S NURSERY,

Twenty-fifth St., bet. Telegraph & Broadway OAKLAND, CAL.

Fruit, Shade and Evergreen Trees, Shrubs, Roses, Etc. Persons laying out new grounds would do well to call and examine our stock before purchasing elsewhere. A large stock of EUCALYPTUS, including BLUE GUM Plums and OYPRESS from six inches to twelve feet high. Acacias in Variety; Young Stock for Nurserymen; Pines and Cypress; Three Thousand Magnolia Grandiflora from six inches to five feet high; Camelia Japonica; Gardenia Cape Jessamine; Araucarias in Variety, at Lowest Rates. Orders attended to. Address, M. KING, Nurseryman, Oakland, Cal.

SUPERIOR FRUIT TREES

TRUE TO NAME.

A fine collection of Evergreen and Deciduous Trees. Australian Gum Trees in variety, by the hundred or thousand. Monterey Cypress in quantities and sizes to suit all. Orange and Lemon Trees at reduced prices. A general variety of Nursery stock.

Also, Rhubarb and Asparagus root.

T. CORLEY,

18v29-tf

315 Washington Street, S. F.

BELLEVUE NURSERY,

Telegraph Avenue, Oakland.

WE OFFER FOR SALE THE PRESENT SEASON A LARGE ASSORTMENT OF

Ornamental Trees and Shrubs

OF BEST TRIED VARIETIES.

Many fine specimens of good size can be seen on the grounds to select from. Choice collections (true to name) put up for those starting a garden.

Street cars pass every fifteen minutes.

3v9-tf

S. NOLAN.

Thos. A. Garey's

Semi-Tropical Nurseries.

LOS ANGELOS, CAL.

Forty varieties of the Citrus family of semi-tropical trees, including many rare and beautiful, as well as useful and profitable kinds.

Grafted and Budded Orange Trees a specialty. Trees packed to arrive in good order. Priced Catalogue sent free. Address me P. O. Box, 528, Los Angeles city, Cal.

23v8-6m

THOS. A. GAREY.

PEPPER'S NURSERIES.

(Established in 1858.)

PETALUMA, CAL.

Green Houses and Tree Depot corner Washington and Liberty streets.

4 Green Houses. 3,000 feet of Glass. Fruit Trees a Specialty.

We offer for sale at lowest market rates a general assortment of Fruit and Shade trees, small Fruits, Vines etc. Evergreen trees and Shrubs in great variety. Green House, Conservatory and Bedding Plants, Roses, etc.

We are now ready, Nov. 1st, to fill orders for trees and plants. Catalogue and price list furnished on application.

Address,

W. H. & G. B. PEPPER,

19v8-tf

Petaluma, Sonoma Co., Cal.

PEACHES, APRICOTS AND PLUMS

are specialties at the Vacaville Nursery, Solano Co., Cal. Alexander's Early, Thurber and Peento in hand, 50 cents each. Beatrice, Louise, Rivers' Early, Lord Palmerston, Lady Palmerston, Prince of Wales, Princess of Wales, Piquet's Late, Lady Parham, Italian Dwarf, Golden Dwarf, Bloodleaved and many other varieties of new Peach in bud, at 25 cents each; Trees of Alexander's Early, \$1 each. Beatrice, Plowden, Freeman and a general assortment of the leading varieties, 25 cents each; Apricots, Plums, Apples, Pears, Cherries, Almonds, Figs, Olives, Pomegranates and including most of the leading varieties of fruit for sale at low prices. D. E. Hough, Vacaville, Solano Co., Cal.

FOR SALE.

10,000 Acres Grazing Land—San Luis Obispo County. Title, U. S. Patent. Apply to MOODY & FARISH, 210 Davis street.

BLOOMINGTON NURSERY, Bloomington, Ill.—F. KRENN. Spring lists free, or the set of four catalogues post free for twenty cents.

The Nurseryman's Directory.

The undersigned have in preparation, a NURSERYMAN'S DIRECTORY, embracing a list of the Nurserymen, Florists, Seedsmen and Tree Dealers of the United States. The work will be sold wholly by subscription, the price of which will be FIVE DOLLARS PER COPY. A limited space will be given to Advertisements, at the following low rates:

Full Page.....	\$25.00
Half Page.....	14.00
One-third Page.....	10.00
One-fourth Page.....	8.00

One-sixth Page, \$5.50.

For Sample Pages, and further information, Address

D. W. SCOTT & CO.,

Printers and Publishers,

Galena, Illinois.

J. & P. N. HANNA,

IMPORTERS AND DEALERS IN

Grain, Wool, Ore and Bean Bags. Flax, Cotton and Linen Twines.

COTTON, DUCK, RAVENS AND DRILLS—33, 36, 40 and 45-inch Wide Duck; 8, 10, 12 and 15-Ounce Duck.

Ore Bags, Tents and Hose

MADE TO ORDER.

Nos. 208 and 310 DAVIS ST.,

San Francisco, Cal.

Agricultural Articles.

VINE AND FRUIT GROWERS,

TO RAISE LARGE CROPS

YOU MUST IRRIGATE.

To irrigate successfully, you must have the power that does not give out when the wind fails.

Laufkotter Bros. & Churchman's Horse-Power,



(PATENTED FEBRUARY 13TH, 1872.)

Never fails to supply more water than four or five Windmills, even supposing you had all the wind you want. It is also suitable for running light machinery, such as Barley Cracks, Corn Shellers, Fanning Mills, Grain Separators, or for Sawing Wood. They are never failing, cannot get out of order, easily worked, substantial, and always give satisfaction wherever they have been used. One horse can easily work two 8-inch pumps, with a continuous flow of water. Force Pumps, from 3,000 to 10,000 gallons per hour. WINDMILLS of all kinds manufactured to order. Wells Bored, Windmills and Horse-Powers set in any part of the State, and repairing of all kinds done.

Manufactured and for sale by

LAUFKOTTER BROS.,

v7-2m-3m

Cor. J and 10th Sts., Sacramento.

KIMBALL CAR, CARRIAGE

—AND—

AGRICULTURAL IMPLEMENT

MANUFACTURING CO.,

Cor. Bryant and Fourth Sts., San Francisco

The CALIFORNIA TUBULAR IRON AND WOOD FRAME HARROW—two, four and six-horse Iron Harrows, \$60, \$70 and \$75. Wood Frame Harrow, \$10 less on each size than the Iron.

The Harrow has an easy seat for the Driver. The middle section rests on three wheels with wings hinged on each side.

By use of Levers the Driver in his seat can raise or lower the Harrow, regulating at will the depth of the teeth in the soil, and in the same manner fold or raise the wings from the ground so as to drive from the road to the field, saving the use of a wagon.

Our CALIFORNIA SCRAPER is also made for the ease of the Driver, enabling one person to ride, manage the team and do the work.

Is adapted for leveling and preparing the surface of the soil for irrigation. And for making roads, removing dirt from ditches, cleaning barn yards, sheep corals, etc.

The IMPROVED EAGLE HAY PRESS—Best in use on this Coast. Cheap, Economical, Powerful, and easily repaired.

Will press bales weighing from 250 to 325 pounds, using less rope than any other press.

Three men with a good team of horses will bale from 10 to 15 tons per day.

Adapted for haling wool, hides, cotton, rags or moss. Price, \$250. Weight of press, 2,500 pounds. Please send for circulars.

MATTESON & WILLIAMSON'S



Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m

MATTESON & WILLIAMSON,

Stockton, Cal.

O. OREGO.

S. O. BOWLEY.

CREGO & BOWLEY,

Importers and Manufacturers

—OF—

CARRIAGES and WAGONS,

No. 9 Merchant's Exchange.

CALIFORNIA STREET.....SAN FRANCISCO

Keep constantly on hand top and open Buggies, top and open Rockaways, Jump-seat Buggies, Track and Road Buggies, Skeleton Wagons, Basket Phaetons of the very latest style and finest workmanship.

We would call particular attention to our fine stock of light Road and Trotting Wagons, made to order by the following celebrated makers:

Charles S. Coffrey, Camden, New Jersey; Helfield & Jackson, Rahway, New Jersey; Gregg & Bow, Wilmington, Delaware; And the first-class makers, which we are prepared to sell on the most reasonable terms.

Also, a large assortment of single and double Harness of the most celebrated makers:

O. Graham, New York; J. R. Hill, Concord; Pittkin & Thomas, Philadelphia.

Also, a full assortment of Dress and Light Blankets, Fur and Lap Robes, Whips, Halters, Surcingles, etc., at wholesale and retail.

OREGO & BOWLEY,

No. 9 Merchants' Exchange,

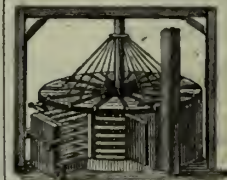
California street,

24v5-3m

San Francisco.

Plummer's California Fruit Drier.

PATENTED DECEMBER 29TH, 1874.



This is the Cheapest and Most Economical, Largest Capacity, and Most Speedy DRIER, and gives the fruit a better flavor than any other machine ever invented. 1st—It only requires a shed to work under; 2d—has boiler, engine, and steam pump for irrigating or other purposes, in connection with the Drier or separately; 3d—the cost is one-half less than any other of the same capacity, and there is no danger of burning the fruit. A sample machine is in full operation at our factory, No. 31 BEALE ST. Address, SPAULDING & BRO., San Francisco, Cal.

Send for Circulars.

Farmers and Threshers

WISHING TO HAVE

Straw Burning Engines

For next season must engage them soon, as most of those now building are already sold. Threshing Engines for Repairs should be sent in now. A number of Second-hand Engines—taken in exchange for "Straw Burners"—for sale cheap. For particulars and prices, address: H. W. RICE, Haywood, Alameda County.

23v8-3m

Haywood, Alameda County.

PUMPS SLUTHOUR PUMPS

Are sold 50 per cent. under any other in the market, considering the amount of water obtained for the power applied. They have now been fully tested for IRRIGATION, and entire satisfaction is guaranteed. Call and see them, or send for Circulars.

J. M. KEELER & CO., Agents, 306 California Street, San Francisco.

ENRIGHT'S

Portable Strawburning Engines

Burns either Straw, Wood or Coal, Manufactured and sold by JOSEPH ENRIGHT,

mr-13-3m

S. Jose.



STOCK OWNERS OF THE PACIFIC COAST TRY THE CARBOLIC SHEEP DIP. It is a SURE CURE for Scab, Lice, and all Parasites that infest Sheep. Prevents scratching and greatly improves the quality of the wool. One gallon of the Dip properly diluted with water will be sufficient to dip one hundred sheep, so that the cost of dipping is a mere trifle, and sheep owners will find that they are amply repaid by the improved health of their flocks.

This is a Sure Cure for Scab, Lice, and all Parasites that infest Sheep. Prevents scratching and greatly improves the quality of the wool. One gallon of the Dip properly diluted with water will be sufficient to dip one hundred sheep, so that the cost of dipping is a mere trifle, and sheep owners will find that they are amply repaid by the improved health of their flocks.

This Dip is guaranteed to cure when used according to directions, and to be vastly superior to Corrosive Sublimates, Sulphur, Tobacco, and other remedies which have heretofore been used by farmers.

Circulars sent, post paid, upon application, giving full directions for its use, also certificates of prominent sheep growers who have used large quantities of the Dip, and pronounce it the most effective and reliable known Cure and Preventive of Scab and other kindred diseases in Sheep.

mr13-hp

Union Box Factory,

GEO. W. SWAN & CO.,

115 and 116 Spear St., bet. Mission & Howard SAN FRANCISCO.

Apple, Pear, Plum, Peach, Cherry, Grape, Orange, Lime and Wine Cases.

Tomato, Potato, Fig and Raisin Boxes.

Strawberry, Raspberry and Blackberry Chests and Drawers, and Baskets for all kinds of Berries.

Peach and Picking Baskets, Butter Chests and Boxes, Cheese Boxes, Square and Round Egg Carriers.

Drums for Figs, Cherries, Raisins, and for other Dried Fruits.

Free Packages—Boxes not to be returned—a good article, costing less than Sawed Boxes.

Lard Caddies, Coffee and Fruit Caddies.

Turkey and Chicken Coops, Bee-Hives, Etc.

Packing Boxes for Dry-Goods, Cigars, Candles, Candied Fruits, Honey, Macaroni, Crackers, Sugar, Soap, Boots, Etc.

In fact, every style of Boxes manufactured in the Union, and turned out in the Best Style at Favorable Prices. Orders from the country well attended to.

THE ALDEN

Fruit Preserving Company

OF CALIFORNIA.

Is now prepared to sell rights and furnish the necessary machinery for using the "ALDEN PROCESS," acknowledged to be the best method known for preserving Fruits, Vegetables, Meats, etc.

For full particulars call at the company's

Office, 426 Montgomery St., S. F.

G. W. DEITZLER, President.

W. M. WHEAT, Vice-President.

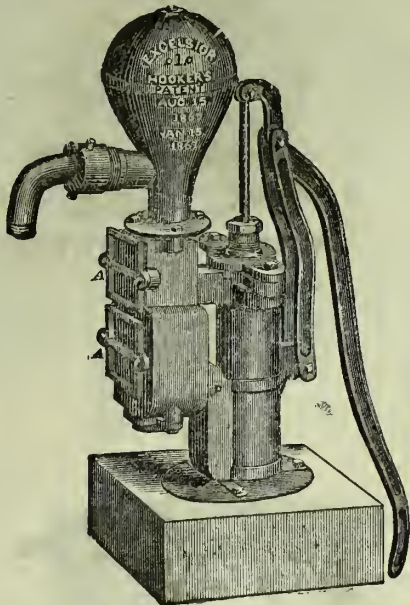
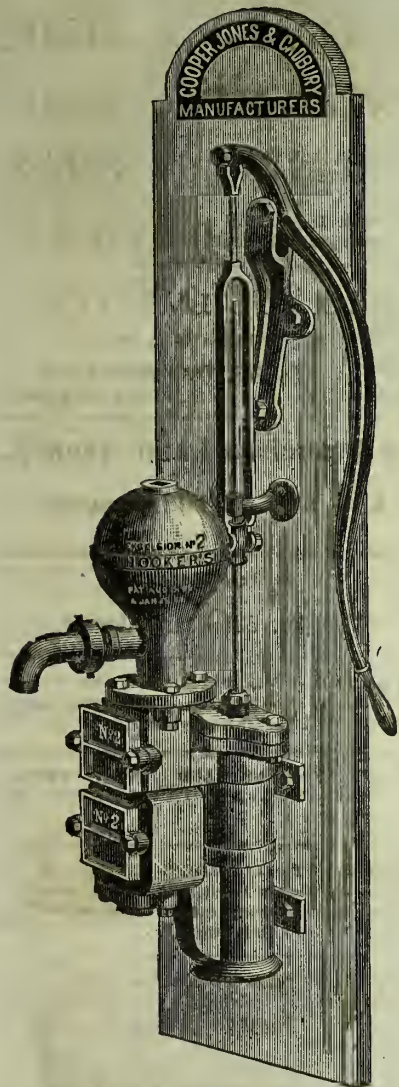
FRANK PYLE, Sec'y and Sup't.

BANK OF CALIFORNIA, Treasurer.

11v7-6m

THE "EXCELSIOR" FARMERS' PUMP.

After Eight Years' use, proving itself the Best Pump on this Coast, and consequently the CHEAPEST.



BASE.

We can advise all parties to buy the Pump to be worked by hand, windmill or horse power. All sizes for sale.

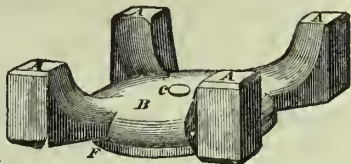
REMEMBER,

Every Pump is tested to 125 lbs. hydraulic pressure per square inch.

Will pump water 250 feet high.

So simple every farmer can keep it in order.

EVERY PUMP WARRANTED.



VALVE.

MOUNTED.

BRITTAN, HOLBROOK & CO.,

111 & 113 California St., S. F., (and also Sacramento,) Gen. Ag'ts.

Send for circular.
mar27-2am

The Hoadley Regulating Cut-off

THRESHING ENGINES.



The above cut represents the Hoadley New Style Threshing Engine, 15-horse power, with Patent Cut-off Governor. We also have the same style and size, with HOADLEY'S NEW PATENT STRAW-BURNING FIRE BOX. This new Engine has been thoroughly tested, and we are prepared to warrant it to give satisfaction, OUR GUARANTEE GOES WITH EVERY ENGINE INTO THE FIELD. This new engine is fitted out complete, with High Seat, Foot-Board for Driver, California Roller Brake (not shown in engraving), Iron Hub, Patent Wheels, Forged Bent Axle, and all Mountings in Perfect Order.

THE

Hoadley Straw-Burning Threshing Engine

Is no heavier than wood-burning engines of same power, and is unquestionably the Best Threshing Engine in the world. It is Lighter, Better Made, Safer, and will do More Work than any other engine of same size and price ever built. THIS FACT IS INDISPUTABLE.

Farmers and Threshers desiring to buy Straw-Burners for coming season, should secure their Engines Early, as the number is not large, and many are already engaged. All Engines will be tested in presence of customers, when required. Send for Circular and Prices. Address,

TREADWELL & CO., Sole Agents, San Francisco.

SHOT-GUNS, RIFLES, PISTOLS, REVOLVERS,

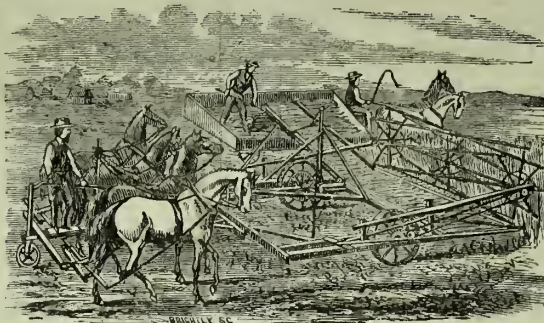
Of any and every kind. Send stamp for Catalogue. Address Great Western Gun and Revolver Works, Pittsburgh, Pa.

FARMERS write for your paper.

Brittan, Holbrook & Co., Importers of Stoves and Metals, Tinners' Goods, Tools and Machines, 111 and 113 California, 17 and 19 Davis streets, San Francisco, and 178 J street, Sacramento.

\$5 to \$20 Per Day at home. Terms free. Address G. E. E. & Co., Portland, M.

OUR IMPROVED HAINES' HEADER,



With Compound Leverage,

Doing away with all Ballast or Weights,

Either on the Lever or Frame; will be appreciated by Header Men. Also, a new device for driving the Knife, making the Header run one horse lighter than any header ever imported. The driving of the Reel is an improvement; in turning, the Reel runs just as fast as when driving straight ahead. The improvements will be found to meet the demands of California trade.

Our Excelsior Mowers are Improved for 1875.

Three Sizes—"Junior," "Medium" and "Senior."

J. I. CASE & CO.'S

SEPARATORS AND STEAM ENGINES

Are the Largest Works of the Kind in the World.

The Threshers and Engines are Made Expressly for this Trade.

Pitts' Down and Mounted Powers, "Foust's" Hay Loader, and Keller & Co's Sulky Revolving Hay Rake,

An age in advance of any other Rake. See these goods before buying; they can be found with us only. Our Stock of Implements is Complete.

THRESHERS, ENGINES, POWERS, HEADERS, REAPERS, MOWERS, RAKES, HAY PRESSES, CORN PLANTERS, CORN CULTIVATORS, CORN SHELLERS, CIDER AND WINE MILLS, HAY CUTTERS, DERRICK FORKS, BELTING, PUSH CARTS, PLOWS, HARROWS, CULTIVATORS, GORHAM SEEDERS AND CULTIVATORS COMBINED, FISH BROS., PACIFIC WAGONS, REGULATOR WINDMILLS AND PUMPS, ETC.

KELLER & CO., 43, 45 & 47 J Street, Sacramento, Cal.

SEND FOR CIRCULAR.

DURYEA'S SATIN GLOSS STARCH

AND

DURYEA'S IMPROVED CORN STARCH

Are the Best in the World.

USE IT ONCE AND YOU WILL USE NO OTHER.

For Sale by All Grocers.

FAC-SIMILES OF PRIZE MEDALS AWARDED THE



The Messrs. Duryea have succeeded in refining Starch to entire purity and developing its entire strength and clearness, an improvement that will be readily perceived in the great strength of the Starch, the superior luster that it gives, and in its reliable uniformity. Much of the so-called starch contains from one-fourth to one-third foreign matter, readily perceived by sourness, mustiness, or a golden yellow tinge, peculiar to inferior starches, a color not desirable for one's linen, but inseparable from the use of common starch. They pledge themselves to the public to give a uniformly superior article, from one-fourth to one-third stronger than any other starch in the world, and at the common market rates.

EGERTON, ALLEN & CO., Sole Agents for the Pacific Coast
San Francisco, California.

RELIABLE.

UNEQUALED.

THE

ONE PRICE DRY-GOODS HOUSE,

42, 44, and 46, Third Street, San Francisco.

THE GOODS ARE ALL MARKED, IN PLAIN FIGURES,

PEIXOTTO & SILVERMAN.

1874. GUIDE AND CATALOGUE 1875.
FREE.

To persons contemplating purchasing I will send my ILLUSTRATED, DESCRIPTIVE CATALOGUE and GUIDE to the VEGETABLE and FLOWER GARDEN WITHOUT CHARGE. It contains the most extensive and valuable list of



Flowering Bulbs, Roots and Plants, Semi-Tropical Trees, Ornamental Shrubs, Fruit and Shade Trees, etc., ever offered in this market. It tells how to successfully grow the Australian Blue Gum, the Monterey Cypress, Pine, etc., and the proper method of Cultivating Tobacco on this Coast.

My stock of Seeds is in part my own raising and in part direct importations from the best European and Eastern growers, and is unsurpassed in all respects by that offered by any other establishment. 100,000 Australian Blue Gums and Monterey Cypress in boxes at from \$30 to \$50 per 1,000, raised at my own Nursery at San Rafael.

R. J. TRUMBULL.

Grower, Importer, Wholesale and Retail Dealer in Seeds, Shrubs, Trees, etc.

2078-6m-16p

427 Sansome street, S. F.

HEALD'S Business College.

No. 24 Post Street, San Francisco.

The largest and best Business College in America. Its teachers are competent and experienced. Its pupils are from the best class of young men in the State. It is under the very best discipline. Its scholarships are good in the Thirty-Six Bryant & Stratton Colleges. It employs four of the best penmen in the State. It has the largest rooms, the largest attendance, and the most complete system of business training of any commercial school in the country.

For information, call at the office, 24 Post street, or address, for circulars,

E. P. HEALD.

President Business College, San Francisco

M. FALLON,

Cor. Seventh & Oak sts.,

OAKLAND, CAL.

Light & Dark Brahmas, Buff, White and Partridge Cochins, Spangled, Golden and Silver Polish, Spangled, Golden and Silver Hamburgs, Pure White-faced Black Spanish, White and Brown Leghorns, Silver Grey Dorkings, Houdans, Silkies, Black-Red Games, Bronze Turkeys, Rouen and Aylesbury Ducks. All from Premium Stock of Best Strains.

Fowls of above varieties for sale; also, Chicks in their season. Eggs packed with care and sent in rotation as orders are received. 1v3-16p-tf

Bronze Turkeys

12 Gobblers from 8 to 20 months old, 22 to 40 lbs each, for sale now. Hens 14 to 18 lbs.

**Emden Geese**

40 to 50 pounds per pair at maturity.

BLACK CATUGA DUCKS.

Games, Brahmas, Leghorns, Houdans, Bantams, etc.

Eggs, fresh, pure, true to name; well-packed so as to hatch after arrival.

For Illustrated Circular and Price-List, address

M. EYRE, Napa, Cal.

FERRETS.

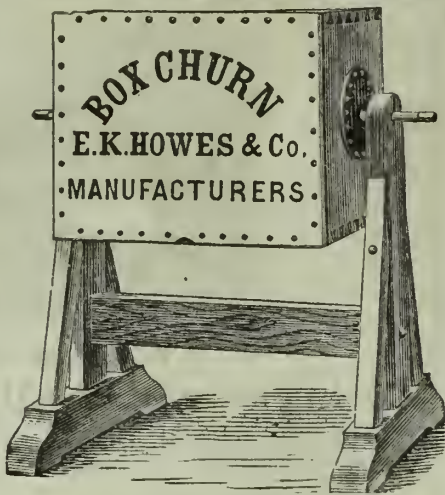
RABBITS.

PIGEONS.

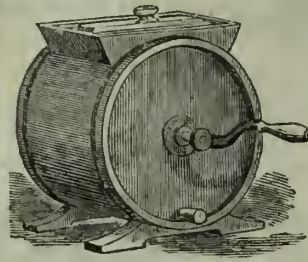
Please state where you saw this advertisement.

E. K. HOWES & CO.,

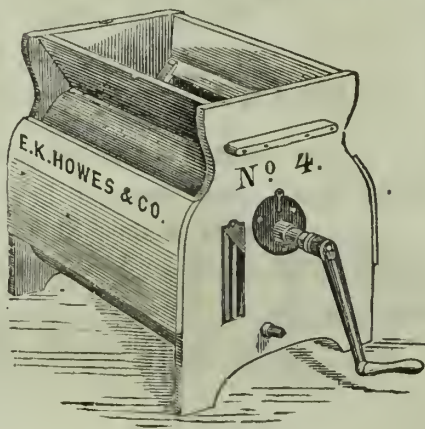
NOS. 118, 120 and 122 FRONT ST., SAN FRANCISCO.



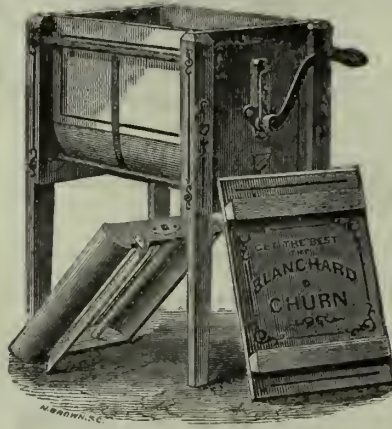
BOX CHURN.



CYLINDER CHURN AND DASHER



THERMOMETER CHURN.



BLANCHARD CHURN.

SOLE MANUFACTURERS ON THIS COAST OF

All Descriptions of Churns, Butter Workers & Moulds, Butter Tubs, (35, 50 & 60 Pounds), Butter Kegs—Plain and Gal Hoops—Wholesale & Retail.

Send for Price List and Illustrated Catalogue. Single Churns sent by Express, C. O. D., if desired. 9v9-cow-3m-16p

CALIFORNIA WINE COOPERAGE AND MILL CO.

30, 32 & 34 Spear St.

M. FULDA & SONS

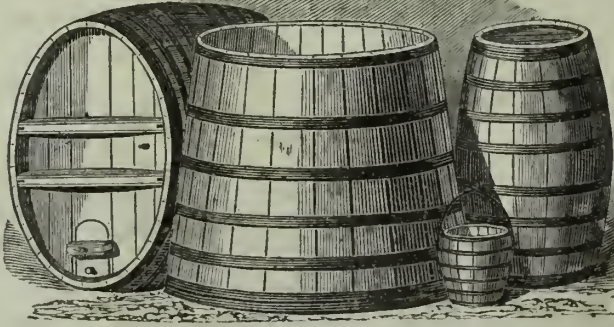
Proprietors.

Manufacturers of WATER TANKS, SHIP TANKS, MINING WORK,

WINE, BEER AND LIQUOR CASKS, TANKS, ETC.

Cooperage and Tanks, Steamed and Dried Before or After Manufacture at Reasonable Rates.

Sawing, Planing, etc. at Short Notice. cowbp

**LOOK!**

ALBERT E. BURBANK, Importer and Breeder of Fancy Fowls, Pigeons, Rabbits, etc. Also Eggs for hatching from the finest of imported stock. Eggs and Fowls at reduced prices. Send for Price List.

ALBERT E. BURBANK, 1v8-3m 43 & 44 Cal. Market S.F.

**EMPLOYMENT.**

I want 1,000 agents to canvass for the COMPLETE HERBALIST, and THE GROWING WORLD. I will give such terms and furnish such advertising facilities that no man need make less than \$200 per month and all expenses—no matter whether he ever canvassed before or not. Address Dr. O. PHELPS BROWN, No 21 Grand street, Jersey City, N. J., and full particulars will be sent by return mail.

NEW CROP OF BLUE GUM SEED.

GRASS AND CLOVER SEEDS.

FLOWER AND VEGETABLE SEEDS.

TREE AND FRUIT SEEDS.

OF EVERY DESIRABLE VARIETY AND OF THE BEST QUALITY; OFFERED AT WHOLE-SALE OR RETAIL, BY

GEO. F. SILVESTER,

SEEDSMAN,

No. 317 Washington Street,

24v8-tf

SAN FRANCISCO

San Francisco Land Agency,

E. L. SMITH & CO., Managers.

A Medium for the Sale of Every Description of Real Estate.

Office, No. 331 Kearny Street.

WANTED—DESIRABLE LANDS AND FARMS in every county of the Pacific Coast, at SAN FRANCISCO LAND AGENCY, No. 331 Kearny street.

WANTED—SHEEP AND SHEEP RANGES For Sale at SAN FRANCISCO LAND AGENCY, No. 331 Kearny street.

EMIGRANTS INTENDING TO SETTLE IN Oregon or Washington Territory furnished with full information, free of charge, at SAN FRANCISCO LAND AGENCY, No. 331 Kearny street.

NOT WANTED—WORTHLESS LANDS, BAD titles or exaggerated descriptions, at SAN FRANCISCO LAND AGENCY, No. 331 Kearny street. E. L. SMITH & CO., Managers.

Improve Your Poultry,

IT COSTS NO MORE TO KEEP GOOD FOWLS THAN POOR ONES!

OAKLAND POULTRY YARDS,

Cor. 16th and Castro streets, Oakland, Cal.

Eggs for Hatching

GUARANTEED FRESH.

True to Name,

And to carry safely to any part of the country.



BRAHMAS, LIGHT AND DARK LEGHORNS, WHITE AND BROWN HOUDANS, COCHINS, BUFF, BLACK AND PARTRIDGE POLISH, GOLD AND SILVER, HAMBURG GOLD-EN, SILVER AND BLACK GAMES, AYLESBURY AND ROUEN DUCKS, DORKINGS AND BANTAMS.

BRONZE TURKEYS, the Largest in America. Send for Circular to

GEO. B. BAYLEY,

Box 659, San Francisco.

16p

Calistoga Real Estate Company.

Calistoga, with a population of about 800 persons, is a village watering place at the head of the valley of Napa, in California. It is four hours' travel north of San Francisco by steamboat and rail.

Its shipping port is Vallejo, on the bay of San Francisco, forty miles distant by rail. It lies at the head of the most charming valley in the State.

THE BEAUTIES OF NAPA.

In traversing this thirty-seven miles of fertile dale, the eye never wearies. If one ascends the sides of the leafy mountains that bound the valley on either side, whether looking up the valley or down, and from whatever point of view, the scene is one of ravishing beauty.

Mounting the summit of Mt. Helena, which towers over all, far to the east the snowy Nevada bound the view; and to the west spreads the Pacific ocean, with its winged ships and its blue horizon. To the north are the vast forests of Mendocino, its stately trees, turned to shrubbery and Clear Lake in its pride of expanse dwindled to a mill dam.

THE WARM SPRINGS.

From the beauties of Calistoga we turn to its other attractions. The estate covers 2,000 acres of fertile land. Its warm springs are crowded with invalids, who flock to its healing waters, and who return cured of their rheumatism, their dyspepsia, their torpid livers and their tender kidneys. The medicinal elements of the hot springs are principally iron, magnesia and sulphur. In this climate, the season of watering places is prolonged.

THE SURROUNDINGS.

By consulting a map it will be apparent that Calis-

toga is destined to become a commercial town of importance. It is the center to which converge innumerable highways leading to many of the richest cultivated valleys of California.

INDUSTRIAL ENTERPRISES.

A new industry is now being introduced at the head of the valley of Napa, which will give easy employment to all the boys and girls, and contingently it will support other new industries. It is but the beginning of many others. Three miles below Calistoga is selected as the site of a large factory for saving and canning fruits and vegetables that now go to waste, and encouraging the production of more. In no part of California can these healthful elements of human food be cultivated more cheaply or more abundantly. Considering the depth of its rich soil, its prolonged season, and the extraordinary vegetable growth in this country, one acre may be considered equal to three wherever this industry is carried on in the Atlantic States. If irrigation be wanted, artesian waterflow may surely be found all along the valley, for it is backed by mountain ranges full of living waters.

MINES:**GOLD AND SILVER AND QUICKSILVER.**

Calistoga is the center also of a great mountain range rich in mines of cinnabar and silver. Already its furnaces are producing mercury, and the product is increasing yearly. A number of valuable mines are now being profitably developed in the region around the base of Mt. St. Helena, at Pine Flat, on the Great Geysers road, and near Sillies' Mill, on the Clear Lake road. All of these are from ten to fifteen miles beyond Calistoga, to which point their products come, and from

which their supplies are carried. The deposits of cinnabar occur in well defined veins, and as they are now being scientifically developed they bid fair to rival in productiveness the celebrated mines of New Almaden.

CALISTOGA REAL ESTATE CO.

The splendid property above described, containing 2,082 acres, divided into town lots, suburban lots, country seats, hotel property and farm tracts, has been bought by the above named company, and is now offered for sale to the public.

The Capital Stock of the Company is **\$1,000,000,**

Divided into 20,000 Shares of \$50 Each.

The sale of a certain number of shares has been authorized by the Board at the rate of **Twenty-five Cents on the Dollar, Making 12.50 Per Share.**

By an arrangement between the former owner and the present company, no portion of this land or the proceeds of its sale, is consumed by expenses or in even the smallest degree diverted from the use and benefit of the stockholder.

Whoever buys Stock in the Company receives his pro rata share of this property, with its Crops and Rents in the meantime, without one cent of deduction for expenses of any kind, even including Taxes. And

this, too, no matter how valuable the property shall become.

Unlike the homestead schemes which have heretofore attracted our people, this plan gives homes and interests in and adjoining a town already built; where trade and growth are already assured, and where daily increase gives promise of greatly added values to all its property. It is a division of this ripened heritage that is now offered to the subscribers.

TRUSTEES:

E. W. BURR, President Savings and Loan Society.

C. HARTSON, President Bank of Napa.

J. B. FRISBIE, President Vallejo Commercial Bank.

JULIUS WETZLAR, Pres. Capital Savings Bank, Sacramento.

COLONEL J. P. JACKSON, San Francisco.

WILLIAM H. MARTIN,

GENERAL AGENT,

No. 1 Webb Street, Cor. California, S. F.

PACIFIC RURAL PRESS

Volume IX.]

SAN FRANCISCO, SATURDAY, MAY 1, 1875.

[Number 18.

DOUBLE SHEET.—24 PAGES.

Haying Machinery.

We continue our descriptions in this issue of machinery for handling the hay crop, by

lieved to be twice as strong as those used previously. The top door beams have been increased in size one-third.

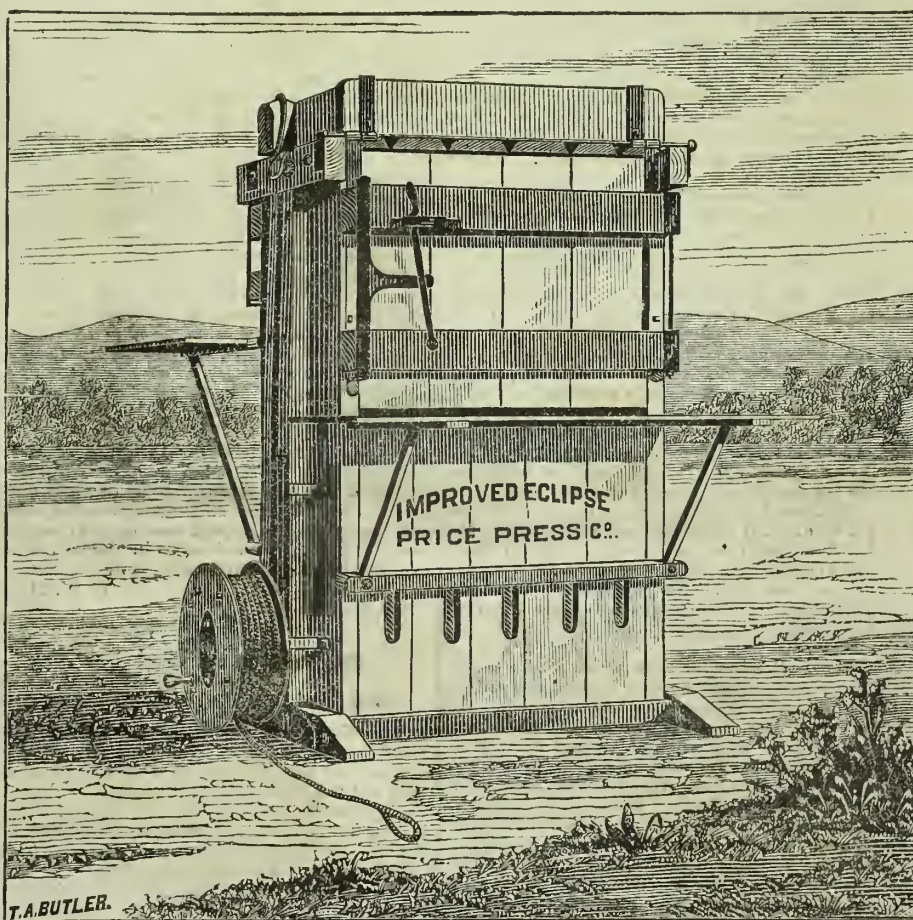
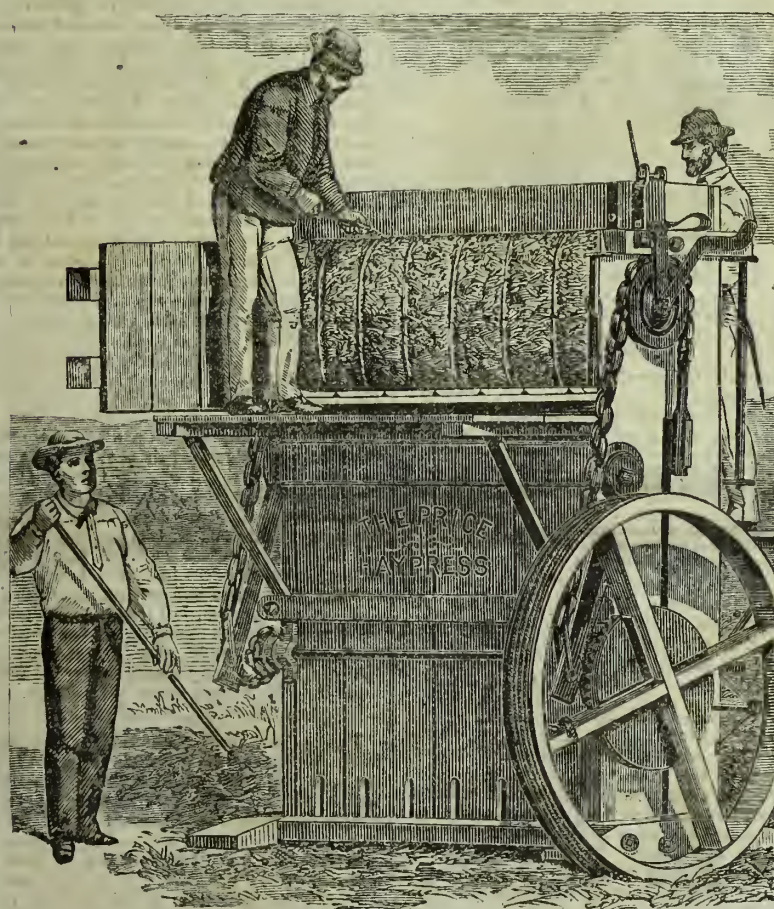
The Improved Eclipse Press.

This is a comparatively new machine, and was invented by Mr. Price, inventor of

The diameter of the screw is about two and three-quarter inches, and the thread is cut nearly three-eighths of an inch deep. The wrought iron arms, A, are one and one-half by two and one-half inches, and are attached to the follower in such a way that it cannot tip sideways. The small arms, a, keep the fol-

More Stupid than Trickish.

The late change in the postal laws in regard to the transportation of merchandise through the mails has become extremely obnoxious to the people by almost excluding transient news.



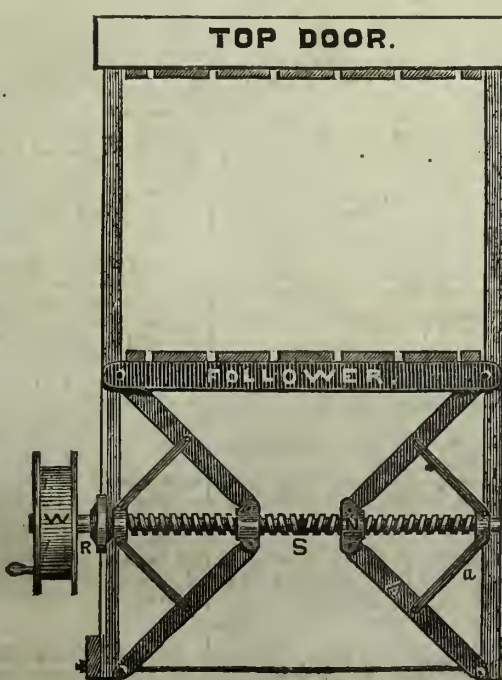
presenting illustrations of the presses made and sold by the Price Press Co. First in order is the well known and widely used Price or Petaluma press, a machine universally admitted to be the most rapid and powerful of its class ever made. This press, we are assured, has on some occasions, under favorable circumstances, baled from 24 to 26 tons in one day, using but four men. It would seem impossible that such an extraordinary amount of hay could be baled with one press in so short a period, and we should hesitate to believe it were not evidence at hand that 20 tons is no uncommon day's work. The company state that many parties around San Francisco bay make a weekly average of 100 tons, one week after another.

This press is in general use in California, Nevada, Utah, Colorado and Oregon. It is about eight feet in height, and weighs 2,600 lbs. The follower, which is but six inches thick, goes entirely down to the ground, making the box in which the hay is trapped seven feet six inches deep. The bales, when in the press, are 22 inches square and four feet long, and weigh from 240 to 320 lbs.

We are asked to call attention to points of superiority in those made the present season over those previously constructed, viz.: The wood work is made wholly of the best Eastern hard wood. The arms or levers are wrought iron, nearly as heavy as the cast iron ones used previously. The roller door fastenings have been discarded for an improved form of the bar fastening first used on this machine. It is shown on the cut of the improved Eclipse. The diameter of the driving wheel has been increased six inches, thus adding considerably to the power. The chains are made by the company of the best Norway or horse-shoe iron, especially for our presses. They are be-

lieved to be twice as strong as those used previously. The top door beams have been increased in size one-third.

In fact, the whole press is a model of compactness, neatness and simplicity, and can be run by any laborer that "knows enough to turn a grindstone." It is only necessary to fill the box with hay, close the doors and turn the driving wheel in the right direction, with a span of horses, and the bale is pressed. Reverse the motion of the wheel by hand, a movement requiring five or six seconds, and the machine is ready for another bale.



Price Press Co., 17 Front street, San Francisco, Cal.

The Price press is a California invention that has stood in the foreground for a long time, and as a standard machine is well worthy of the prominence we here give it in the columns of the RURAL.

Crops about Santa Barbara promise well.

lower and screw exactly level, and effectually prevent any tendency to bind or chafe against either end of the press. The driving wheel, W, is about two feet in diameter, and is keyed to the screw, which moves up and down in slots about two and three-fourths inches wide, provided for it. The top of the follower, when clear down, is about twenty inches from the ground, the levers and screw being compactly folded up beneath it. The press weighs 2,000 pounds and is sold for \$300. The Price press is sold for \$450. Further information concerning these splendid machines may be obtained by addressing

papers from the mail bags. There has been but one opinion in regard to the power behind the P. O. that dictated this law—this Bismarck-ing was, of course, done by the officers of the express companies. These parties accept the honor, and very graciously come forth with an explanation of the way the thing was done, and deny having anything to do with that feature of the bill which is most obnoxious to the people; that is, increasing the rates of postage on transient newspapers. In the *Expressman*, a magazine supposed to be the organ of these companies, the explanation alluded to is given. It confesses, or rather boasts, that this change was made under pressure from the express companies; but it is claimed that nothing further was intended than to restrict the transportation of merchandise by mail, and that they had no design to meddle with the newspaper department; and, according to the *Expressman*, this was simply a blunder on the part of congressmen.

Undoubtedly many of the chafing and crushing burdens imposed upon the people are the result of stupidity rather than trickery. Most men would rather be called knaves than fools, and the people have been too considerate of the feelings of their legislators in conferring upon them the first of these titles; and in the present brisk demand for "good, true men" we must be extremely careful that we do not have palmed off upon us men who are anything but good and true.

CROPS IN VENTURA.—We learn by private letter that the crops in the Santa Clara valley, Ventura county, are doing well, and that with but few exceptions there will be an average crop, reports to the contrary notwithstanding. Heavy fogs have prevailed for the past three weeks, amounting almost to rain.—*Mercury*.

CORRESPONDENCE.

From Los Nietos.

EDITORS PRESS:—Since my last, which you know, contained something with regard to late frosts, we have been visited with a severe calamity of this sort, which, however, as I see by the papers, did not leave us only sufferers. Whole crops of grain in bloom were entirely blasted, and so, also, some late crops, but strange as it appears, other fields were scarcely injured. The earlier fruits and the walnuts are almost entirely blasted. Grapes suffered severely, but as there are always reserve buds, in their case the damage is not so severe. Since the frost we have had very mild weather, with fogs of late, which is renewing the young grain and restoring its wonted freshness and promise.

I hope I shall not be charged with "blowing" if I call your attention to one particular farm in the vicinity of Los Nietos; and, as I have before called your attention to the uplands in this vicinity, I feel the more free to cite you another instance of what may be accomplished by good cultivation in these upland situations. Señor Ramirez cultivates a farm of 600 acres on the slope east of Old Los Nietos, to wheat, barley, beans, potatoes, melons and corn. I have recently paid a visit to his farm, and have been perfectly delighted with its appearance. This gentleman is one of the most industrious and thorough farmers in this country. His gardens are perfectly clean and mellow, and his grain fields are a marvel of neatness. Wonderful to state, the frost did him no injury whatever, although he had corn, beans, potatoes and melons up.

Will you permit me to give you a personal notice of this gentleman? He is now fifty-nine years old, yet he has for years done all the sowing on his large farm for three teams with gang plows, going on foot and carrying the grain. He is slender, but wiry. It is his unvarying habit to walk the entire circuit of his fields every morning on rising; and I assure you, he is not idle in his walks; he is constantly pulling weeds. I once had occasion to pass by his fields. His sons were mowing the young grain on account of malva and mustard, of which the land was very foul. They had left a narrow border unmowed, and there I found the old gentleman, pulling out the weeds as carefully as if it had been a garden.

He is the father of sixteen children, of whom fifteen are still living, and all in his house. He has four sons over twenty-one, who all have some education in English and speak the language very well. They manage their own machinery, of which they have all that is necessary for producing a crop and putting it in the market.

Señor Ramirez is now putting up a house that will cost about \$5,000; constructed on the most approved plan and of elegant finish. He is a most genial gentleman, and withal a very enthusiastic man in anything that he goes at. His enthusiasm has been his sustaining quality; for he has had many reverses and discouragements to labor against. If he failed one year, he worked as hopefully as ever for the next crop.

Such, undoubtedly, must be the history of every successful man. Indomitable energy and industry must be rewarded, and the absence of these qualities is sufficient reason for failure in life. Let a young man starting in life persevere in any particular direction and success is certain. He may have to wait long, owing to untoward circumstances over which he has no control, but let him but hold on and success is his.

Los Nietos, April 21, 1875.

Notes From San Jose.

[By Our Own Correspondent.]

The Saratoga and Lick Mill Paper Manufacturing Companies have two mills in operation in this county; one at Saratoga, ten miles south, and the other near the Alviso road, five miles north of San Jose. The last named place I had the pleasure of visiting a short time ago. The buildings here are of a more substantial and expensive character than are generally used for manufacturing paper; the main building being a very substantial brick, the store room a heavy frame. They are no other than the celebrated

Lick Mills,

Erected in 1852, as an inscription cut in a block of brown stone placed in the wall over the front door would indicate. The buildings were erected for flouring mills, and used as such for several years by our eccentric millionaire, James Lick, who no doubt spent large sums of money, as at that early day all such improvements were expensive, not only on the mills, but in constructing dams, reservoirs and flumes, to get water from the Guadalupe creek to propel it—to say nothing of the extravagant use of rosewood and mahogany in the construction of the bolting-chests and other inside works.

This was Mr. Lick's home for many years, and his large, airy dwelling house, with its surroundings of lawns, groves of ornamental trees, conservatories, bowers, fountains, etc.,

though bearing marks of several years' neglect, still retains the air of a quiet, pleasant place.

What remained of his orchard and vineyard after removing his favorite trees and plants, at great cost, to his new location south of San Jose, presents but a sorry and forsaken appearance.

This property, consisting of seventy-eight acres of good land, with all the improvements, was donated by Mr. Lick to the Tom Paine Club, of Boston, from whom the present company bought it, to be fitted up and used as a paper mill. Their machinery, which is of the most approved and substantial character, was made at Lee, Mass. They employ about twenty men and manufacture 250 reams of brown wrapping paper per day, using mostly straw for the same, though they intend soon to commence the manufacture of white paper for newspapers and other purposes. Their propelling power is a splendid engine of 120 horse power, said to be the best engine in the State.

The mill at Saratoga is of about the same capacity, and has been running for over eight years, making wrapping paper from straw, and is the leading industry of the place.

These mills like all other well conducted and successful manufactories, do good not only to the stockholders, but to the community at large, by giving employment to a large number of men, not only about the mills, but in hauling wood and straw, and making a market for both—utilizing that which used often to be burnt in the field.

Farm Notes.

J. W. Briggs, formerly of Marysville, an experienced nurseryman and fruit grower, has secured the right location, and made a good commencement for a first-class fruit farm about three miles north of San Jose. He has here 120 acres of the best quality of tree and vegetable land, bounded on the east by the Coyote river, with its fine fringe of trees, and on the south by the county road.

The quality of the land, the location, climate and surroundings are as desirable for fruit growing, and for making a beautiful California home as any that can be found in the valley. He has planted this year 1,000 cherry, 2,500 pear, and 3,000 plum and prune trees, all looking well. He has besides 35 acres in strawberries, 15 acres in asparagus and 4,000 rhubarb plants; besides planting 1,000 plum and prune trees on a 20-acre lot he has purchased in "the willows." Three strong flowing wells furnish all the water needed for his plants and small fruits. Mr. B. thinks he will not need to irrigate his fruit trees on this kind of land.

The smooth, well-graded and finely pulverized grounds—the straight rows of trees and plants of uniform size and shape, and the neat and workmanlike appearance of this whole new plantation, shows it to be in the hands of one who thoroughly understands his business.

G. W. M.

San Jose, April 19.

Irrigation on the West Side.

Meeting of Land Owners and Grangers.

A meeting of citizens on the west side of the San Joaquin river was held at Grayson on Tuesday last, for the purpose of consulting with a view to the adoption of some uniform and general system of irrigation for that section. The call for the meeting was issued by the West Side Grange, but parties interested who were not Grangers took part in the proceedings.

The convention was organized by the election of Lee Crittenden, Chairman, and George H. Copeland, Secretary.

Several short addresses were delivered by different speakers, all agreeing in the one statement that irrigation was a necessity to the country they inhabited; that, without, there was no assurance of cultivated crops, and that the valley must again be surrendered to the stock interests. Even for that purpose the pasturage would be so light that land owners could not expect to receive more than \$2.50 per acre. None doubted the practicability of irrigation, and the only question for solution by the convention was as to the manner of procedure. A committee of three, consisting of A. R. McDonald, H. Hamilton and Guy Kilburn were appointed to receive all plans and report to the convention at 7 o'clock the next morning. The convention then adjourned until Wednesday morning, April 21st, at 7 o'clock.

Second Day.

Pursuant to adjournment, the meeting was called to order by the Chairman at the hour appointed.

The minutes of the previous meeting were read, corrected and approved.

The committee on plan for operation made the following report, which, after being considered seriatim by the convention, was adopted:

Section 1. That this Convention organize itself into an association to be known as "The West Side Land Owners' Casual Association." That its object shall be irrigation, navigation, manufacturing and mining.

Sec. 2. That a committee of five be appointed by the Chairman to prepare a Constitution and by-laws to govern the Association, and to present the same to the Association at its next meeting.

Sec. 3. That a committee of three be appointed in like manner, whose duty it shall be to prepare a bill (to be presented to this Association at its next meeting for its approval), to be presented to the next Legislature for enactment into a law. Said bill to create an

irrigation district on the west side of the San Joaquin river, composed of the territory capable of irrigation from the proposed canal in the counties of Tulare, Fresno, Merced, Stanislaus, San Joaquin, Alameda and Contra Costa, said canal to begin at the most feasible point or points in Tulare or Fresno counties, and extending to Antioch in Contra Costa county. And also to create a Board of Water Commissioners, to be elected by the people whose lands would be benefited thereby, five in number, to manage the business of the Association; and providing that all water rights acquired thereunto, or connected therewith, shall be inseparable from the land so irrigated.

Sec. 4. That our next meeting shall be on Thursday, the 20th day of May next, and that at that time the territory above described shall be divided into five districts, and that time shall be set for an election, at which one Commissioner shall be elected for each district, to constitute a Board of Water Commissioners, whose duty it shall be to proceed at once to make a preliminary survey for said canal. That at the time and place for holding said election, three hundred dollars be raised by voluntary subscription in each district as a fund to defray the expenses of this survey, and that said Commissioners shall take immediate action to secure the water rights, if necessary, for said canal.

Sec. 5. That a Finance Committee be appointed to secure ways and means, and cause to be printed in a circular for the use of the Association, the proceedings of this meeting, and all other meetings, and also any other printing which they may deem advisable in the way of posters and hand bills.

The Committee in presenting this hasty report beg leave to say that the time has been so limited that it has been impossible to make anything very elaborate. All of which is respectfully submitted.

J. R. McDONALD,
GUY KILBURN,
H. HAMILTON.

The Chairman then appointed the committee, as follows:

On Constitution and By-Laws—J. W. Van Benschoten of Grayson, W. H. Broad of Oristimba, Martin Summers of Ellis, G. W. Kimball of Antioch, J. F. Jourdan of Badger Flat.

On Legislation—J. R. McDonald of Grayson, G. L. Fisher of Bonita, W. B. Bay of Ellis.

On Finance—Geo. H. Copeland of Grayson, Ira True of Cottonwoods, A. C. Wristen of Point of Timber.

The following resolutions were adopted:

Resolved, that all who are interested in this matter are invited to attend and take part in our next meeting, to be held at the Grangers' Hall, at Grayson, on Thursday, the 20th day of May next, at 10 o'clock A. M.

Resolved, that the Secretary be instructed to send a copy of the proceedings of this meeting to the Stanislaus News, Stockton Independent, Sacramento Record-Union, San Francisco Chronicle, Antioch Ledger, Merced Express and the RURAL PRESS, for publication.

The thanks of the meeting were then tendered to H. A. Manchester for his able speech at the commencement of the proceedings, and at 1 o'clock P. M. the meeting was adjourned to meet at this place on the 20th of May next.

Geo. H. COPELAND,
Secretary.

POPLAR TREES AS LIGHTNING CONDUCTORS.—Who has not heard of the perils which environ people who live near rows of tall Lombardy poplar trees, such as were formerly so common in many places in New England and which are still cherished for their beautiful stateliness in some parts of Europe. Their great height and tapering form seems to fit them especially as a medium for conducting the electric fluid earthward. The danger arises from the tendency manifested by the fluid to glance off before entering the ground, and commit sad havoc in and about the adjacent dwellings. To avoid the necessity of sacrificing these ornamental trees to the well grounded fears of their owners, M. Colladan, of Geneva, has published an essay on the subject of turning them into properly constituted lightning conductors by inserting in the lower part of the trunk a metallic rod, which he connects with the earth by a chain, so that the fluid can not leave the tree to dart at any object placed within a short distance, as at present so often happens.

THE FLIGHT OF BIRDS.—Birds have a more or less instinctive knowledge of engineering. When a bird commences its flight, if there is any wind, unless forced to take wing too suddenly, it will generally lean toward the wind at the start. The reason for such action is obvious. In order to readily ascend, each stroke of the wing must come in contact with a fresh volume of air, which could not be the case unless the bird either made a progressive movement or the air itself was wafted past the bird, as in a wind current. The downward impulse of successive strokes would be greatly impaired in their efficiency by heating largely upon air which comes in to fill the space from which the air has been removed by the preceding stroke. Hence, the onward movement of a bird plays an important part in the efficiency of the action of the wings.

BENDING HEAVY IRON.—It is now possible by the aid of hydraulic machinery to bend iron shafts of twelve inches in diameter to any required shape. Incredible as this statement may seem to an expert, crank shafts are now so made, instead of by the slow, laborious and expensive method of forging. The bent shafts are also said to be much better than forged ones, from the fact that the fiber of the metal runs in one direction continuously, whereas in forged ones it is often across the line of strain.

THE SWINE YARD.

Feeding Swine in Summer.

A correspondent of the Germantown Telegraph writes: "During the hot summer months I would feed very little solid feed, such as corn in the ear or uncracked. I would keep hogs upon green feed constantly, either grass, oats or rye, and feed them at regular intervals, once or twice a day, upon mashed feed, either shorts, chopped oats or rye, buckwheat, etc., fed in troughs. When fed in this way, and at the same time allowed access to water and shade, hogs will hear crowding through the hot months, a very good time, if not the best, to take on flesh. This puts them in the best of condition for corn feeding, which should commence about the 1st of September, when the new crop is still soft and tender."

This writer is on the eve of finding out that the hog requires bulky food as well as the cow or horse. Because pork is usually made by feeding grain, many farmers have almost ceased to regard the hog as a grass eating animal. When farmers shall study the nature of the pig and feed it accordingly, there will be little trouble with cholera, scurvy or other diseases. Both are no doubt occasioned by errors in feeding and uncleanly surroundings. One point mentioned in the above paragraph needs correction, and that is, that it is dangerous to feed high in summer. This idea has grown out of the fact that diseases are more prevalent in warm weather; but the cause of greater prevalence of disease, is that concentrated food creates fever in the stomach, and the hot weather increases the difficulty. Cold weather carries off much of the unnatural heat, and thus modifies the effect of grain diet alone. Now the pig should be fed in such a way that the stomach will be healthy at all times, and then the summer heat will aid the growth and laying on of fat. With grass or other green food, given with meal, the pig may be fattened much cheaper in summer than fall or winter; it requiring little food to keep up animal heat. The summer is the economical time to make pork; give plenty of clover, green rye, oats, turnips, beets, carrots or other green food relished by the pig, and with this give corn meal, ground oats, peas or any other grain, and your pigs will make healthy pork, and the pork cost fifty per cent. less than that made in winter.—Live Stock Journal.

SALT FOR HOGS.—The unrestrained appetite of swine will often lead them to consume things that are highly injurious to them. Cases of poisoning by partaking of excessive quantities of salt often occur among hogs at this season, when beef and pork barrels are emptied of the old brine and refuse salt. A case in which several hogs were lost in England was recently noted. Hogs require a certain amount of salt, as do other animals, but it should be given to them with caution, and either evenly mixed or scattered very thinly about their troughs, so that one more greedy than another cannot take more than its proper share.—Exchange.

PIGS.—The farmer should not forget that warm weather is the profitable time to fatten his pigs. He should not wait till it takes one-half of the food that the pig can eat to keep him warm. Now is the time to feed soft corn. The corn on an acre will make 25 per cent. more pork while soft than when it gets hard and flinty. In the soft state it does not need any cooking; it is then in the cooking process of nature. Feed your pigs now, judiciously, all they will eat, and push them on the fattening road as fast as possible.—Exchange.

A VALUABLE INVENTION.—Monsieur C. Jeanne, late an officer of the French Navy, is the inventor of a self-acting apparatus intended to show and register the speed of a ship, the number of miles made good, and the actual courses steered. It is to the last point the inventor more particularly invites attention. Attempts have been previously made, with more or less success, for the self-registering of speed, etc., but the automatic registration of a ship's course is something entirely new. The helmsman cannot vary a quarter of a point without its being shown. This part of the apparatus can be disconnected from the others and used alone, and from the practical experience of the inventor there is good reason for believing in the practicability of his invention. In the case of collisions, although the apparatus cannot, of course, prevent them, it would truthfully register the course steered by each ship, which is now one of the most debatable points with which official assessors have to deal, for this invention claims to give truthful evidence, and would thus far materially assist a correct decision being arrived at as to which vessel was right and which wrong, thus preventing maritime insurance companies from being unintentionally defrauded. This is a matter well worth the attention and consideration of underwriters, for with such a truthful "tell-tale" on board the wrong people could not well be called upon to pay.

VENTILATION.—The importance of a thorough ventilation in our dwellings may be inferred from the following: If the air of a crowded apartment is conducted through water, so much animal matter is collected in the water as to occasion a speedy putrefactive fermentation, with a disgusting odor.

THE VINEYARD.

The Scuppernong Grape.

As I am now having a little leisure time, I will take the opportunity to comply with the promise to furnish you with a short article on my operations with the Scuppernong grape this season.

At the outset, I will say I am amazed at the productiveness of this class of grapes; the quantity that can be raised on an acre of ground is no longer problematical with me. I have one vine covering an arbor twenty yards long and fourteen yards wide, and thirteen years old, which has given me thirty bushels of clean grapes, by actual measurement, being at the rate of 525 bushels per acre; and as a bushel of grapes weighs fifty-two pounds, and yields three and a half gallons juice per bushel, I am getting at the rate of thirteen tons and 1,800 gallons of wine per acre. This vine has never had an hour's cultivation nor any manuring since it was planted, other than the leaves that fall from it annually.

I have another vine larger and older than the above mentioned, being twenty-five years old. This is not so productive, in consequence of growing in ground too rich, being in my back yard, where, from its receiving the waste water incident to such a situation, its growth is too vigorous.

I have had clusters of grapes this season carrying twenty-four large berries, and numbers of berries measuring one and a quarter (1 1/4) inches in diameter each. I found one berry which measured 1 1/2 inches in diameter and 4 1/2 inches in circumference, which is the largest I have ever seen or heard of. I see in the papers some statements in regard to the large yield of grapes the present season in some of the vineyards in California, to-wit—four to five tons per acre. I have no doubt whatever that, with our Scuppernong, I can raise treble the number of pounds per acre than can be either in California or the Valley of Eschol, with any grape in the world.

I have about one hundred vines of various ages under cultivation.—J. VAN BUREN, *Clarks-ville, Ga.*

We clip the above from the columns of the "Rural Southern and Plantation" more to show what can be done with this popular grape on its "native heath," than any design of recommending it to the culture of Pennsylvanians. If we are not very much mistaken, our venerable friend, Jacob B. Garber, of Columbia, Pa., has given the "Scuppernong" a thorough trial, and finds it not at all adapted to the latitude of Lancaster county.

This grape is also said to be free from the attacks of *Phylloxera* and other enemies that this fruit is heir to, and that cions grafted on its roots will escape their infestations. The yield above described is so abundant, and the fruit so remarkably fine, that other attempts to acclimate it might result more favorable, and therefore be worthy of extended trial. Of course practical growers who cultivate grapes for profit will best know what to do in the premises. This is an experimental or transition period in the horticultural history of our country, and therefore in securing any step forward we must run the risk of temporary backward movement occasionally.—*Lancaster Farmer.*

Grafting and the Phylloxera.

At the meeting of the Missouri Horticultural Society, Prof. Riley, in an address upon the new grape pest, *Phylloxera*, called attention to the fact that certain varieties were exempt from the attacks of the insect. He recommended grafting as a remedy.

Speaking of this means as a preventive, he stated the absolute necessity of preventing the vine from taking root from the graft, as it would undoubtedly do without constant care, if the operation was performed, as is most common, underground. To obviate this, he recommended two well known methods of grafting above ground, but which are seldom practiced in the West. He said:

The first is by temporarily making a false surface and grafting in the ordinary manner, i. e., instead of digging away the earth and inserting the cion two or three inches below ground, it should be inserted two or three inches above ground, and the earth thrown up around it, to be removed only after the graft is thoroughly and permanently joined. There will then be no danger of the graft forming its own roots; and it is certainly as easy to throw the earth around the vine as to dig it away, while the mechanical work can be much more conveniently and agreeably performed above than beneath the surface. The second method is by inarching. This system of grafting does not seem to have been much practiced in this country, yet while it requires great care, and success may not as often crown the effort as in the former methods, I hope more attention will in the future be given to it.

The operation is comparatively simple. A slice two or three inches long is cut from one side of the vine to be grafted, and a similar slice from the vine which is to serve as stock, as near the base or butt as possible. The two cut portions are then brought face to face, so as to fit as neatly as possible, and are then bound together with cord, basswood bark, or other grafting bandage. In the course of a fortnight partial union takes place, when the bandage should be somewhat loosened, to admit

the expansion. In six or eight weeks, if the operation is successful, the stock and cion are firmly united, when the bandage may be removed. The graft immediately below the union, and the stock immediately above it, should then be partially severed, and in a week or two more should be entirely cut loose.

Prof. Riley closed by giving varieties upon which to graft, viz: Concord, Clinton, Herbe-mont, Cunningham, Norton's Virginia, Rentz, Cynthia, and also varieties to graft on to any or all of the above, as of first importance: Catawba, Iona, Delaware, Wilder; Goethe, any European or hybrid vine with such; of secondary importance—Ives, Hartford, Prolific, Max-atwayne.—*Western Rural.*

STOCK BREEDERS.

Durham or Short-horn Cattle.

This breed of cattle excel all other beasts of the bovine race in their large, rangy form, full chests, round barrel, length of carcass and depth of brisket. They have a good constitution, which gives them great capacity to put on an abundant supply of fine marbled beef. Their merits consist in a great measure, in their value for the shambles. There may be milking families; we have seen such, but their number is comparatively small in proportion to the great number that run to beef.

As food is essential to human subsistence, this class will supply more wants than the diminutive runts grown upon barren pastures and subjected to the rigid frosts of winter without sufficient food or shelter.

There is always a demand, at high prices, for large premium beefs, whose surplus flesh is marbled all over with fat. It is a luxury to get hold of the rich, juicy meat in which this class so pre-eminently abounds. They have become a great favorite in the market, and are destined to increase in public favor on account of their capacity to continue to put on flesh to correspond with the food consumed. It takes no more labor to take care of a large ox than it does a small one, and it does not consume more than one-fourth more food. Still you get twice as much weight in the same carcass. There is a saving in labor and food, which determines the cost of production.

The Short-horns are deservedly held in high estimation for their generous supply and good quality of beef, one of the leading objects in the production of live stock. They are especially adapted to fertile districts, where grass and grain abound in profusion. They will pay for the food they eat, and their early maturity make quick returns upon the capital invested. The advantages of quick growth and an early market encourages investments in this favorite breed for the purpose of short returns for re-investment. The breeder seeks that class which ripen young to realize from the adventure. The butcher prefers young, tender beef because it supplies the demand of his customers and pays the best. The consumer is better satisfied with young, thrifty Durhams that have grown tender because they have grown fast.

The Durhams have been long a favorite breed in England, where the population is crowded and the grazing land comparatively limited. It is necessary there to grow the greatest amount of food possible on the least number of acres of land to sustain the population, hence, this famous breed of Durhams were improved by eminent and gifted breeders to meet this emergency; to feed hungry working-men who eat their bread in the sweat of the brow.

Collins, Bates, Booth and other celebrated breeders of Short-horns must have reaped a great reward for their labors. Their herds served to enrich England, by being purchased at high prices and shipped to foreign nations. The founders of high-breed cattle have not only conferred a blessing upon their own country, but have given an impulse to the cause of improvement in every civilized country in the world.—*W. S. in Western Rural.*

Fine Stock Arrived.

J. A. Merrick arrived in California a few days since with a lot of valuable stock, most of which he brought from the blue grass region of Kentucky. He visited Petaluma on Wednesday and Thursday, and was so much pleased with our section that he has strong thoughts of locating here permanently. He regards this as the finest agricultural and stock-raising district he has ever visited, and expresses the opinion that its many advantages must eventually cause it to become wealthy and populous beyond present expectations. Among the horses brought from the East by Mr. Merrick are the celebrated horses Baywater, son of Lexington, and out of Bayleaf, by imported Yorkshire; Young Tiger, from Boone county, Kentucky; Commodore Patchen, a colt of Membrino Patchen, and a fine trotting jack. He also brought several brood mares and the short-horn bull Noble Duke the Second, an animal that has a predominance of Dutchess blood. The pedigree of this valuable bull is given on page 246, Vol. III, of the American Short-horn Record.

Since the above was written we have ascertained that Mr. Merrick has decided to locate in Petaluma. He will proceed to San Francisco to-morrow and bring his stock here immediately.—*Petaluma Argus.*

POULTRY YARD.

Fattening Chickens.

It is hopeless to attempt to fatten chickens while they are at liberty. They must be put up in a proper coop and this, like most other ap-purtenances, need not be expensive. To fatten twelve fowls a coop may be three feet long, eighteen inches high and eighteen inches deep, made entirely of bars. No part solid—neither top, sides nor bottom. Discretion must be used, according to the size of the chickens put up. They do not want any room; indeed, the closer they are the better, provided they can all stand up at the same time. Care must be taken to put up such as have been accustomed to be together, or they will fight. If one is quarrelsome it is better to remove it at once, as, like other bad examples, it soon finds imitators. Diseased chickens should never be put up.

The food should be ground oats, and may either be put up in a trough or on a flat board running along the front of the coop. It may be mixed with water and milk—the latter is the better. It should be well soaked, forming a pulp as loose as can be, provided it does not run off the board. They must be well fed three or four times a day, the first time as soon after daybreak as may be possible or convenient, and then at intervals of four hours. Each meal should be as much as they can eat up clean, and no more. When they have done feeding, the board should be wiped and some gravel spread. It causes them to feed and thrive.

After a fortnight of this treatment you will have good, fat fowls. If, however, there are but five or six to be fatted, they must not have as much room as though there were a dozen. Nothing is easier than to allow them the proper space, as it is only necessary to have two or three pieces of wood to pass between the bars and form a partition. This may also serve when fowls are up at different degrees of fatness. This requires attention, or fowls will not keep fat and healthy. As soon as the fowl is sufficiently fatted, it must be killed; otherwise it will not get fatter, but will lose flesh. If fowls are intended for the market, of course they are or may be fatted at once; but if for home consumption, it is better to put them up at such intervals as will suit the time when they will be required for the table.

When the time arrives for killing, whether they are meant for market or otherwise, they should be fasted without food or water for twelve or fifteen hours. This enables them to keep for some time after being killed, even in hot weather.—*Journal of Chemistry.*

Poultry Profits.

MESSRS. EDITORS.—Mr. E. B. Taft, on the French Camp road, a few miles from Stockton, San Joaquin county, kept last year 165 chickens and they gave him profit of two dollars per hen last year. This year he is going into the business more extensively. He has built fifteen chicken houses, size eight by sixteen feet, to keep 100 in each house. He has about 1500 young chickens and 500 old ones. I notice one good feature in these houses: the sides are hung on hinges just under the eaves of the roof. This permits of both sides opening up, so as to form a shade and thoroughly ventilate the house. His chickens are of common breeds, except 130 light Brahmas. J. W. RILEY.

COLOR OF THE CHAMELEON.—An English paper gives some interesting facts relative to the cause of change of color in the chameleon, which have been gathered from remarks made on this subject by M. Paul Bert, at a late meeting of the Societe de Biologie of Paris. This animal, whose natural color is dark green, has the power of changing to pale green, and very pale yellow, this change of color being entirely due to the nervous system. The explanation of this phenomenon is thus given: "Under the skin, and communicating with it, are vessels filled with pigment, coursing through little canals which intersect, cross, and interlace each other in all directions at the back of the epidermis itself. This pigment is afterwards drawn back into the vesicles by the involution of the animal, and the chameleon then takes on a pale tint produced by a pale yellow tissue, visible by its transparency." It has been discovered that the color of the animal is affected by light, and that if disturbed at night the side on which a light is thrown becomes pale, the other side remaining unchanged. So far, no explanation of this curious fact has been suggested, and it offers a field for research and observation which may lead to very important results.

IRON FURNITURE, made of hollow iron, has recently been introduced into Germany. A large factory devoted to this class of manufacture has recently been established there. Ribbon iron, of the best quality, is taken and converted into tubing in pieces of about eight metres long, which can be bent cold into any form suitable for the making of bedsteads, chairs, tables, etc. Hollow iron is stronger than solid iron, such as that usually employed heretofore, and possesses this special advantage, that rivets hold better, and that it does not itself break so easily, as is frequently the case in solid iron, which gives way where there is a flaw.

SHEEP AND WOOL.

The Eastern Wool Market.

NEW YORK, April 24.—The market, though quiet through the week, closes brisk on all descriptions except new Australian; there is really no demand for that class of Wool, and the prospects are that much money will be lost, as lots are being offered at 50¢51c, while it costs 52¢53c to lay it down here. The goods market continues flat, and prices are very unsatisfactory. The first lot of new Spring clip California has been received and placed at 32¢35c. Sales for the week are 30,000 pounds Australian combing at 58¢60c; 175 bales Cape, mostly at 35c; 96 bales Montevideo, 40c; 5,000 pounds Mexican, 20c; 3,000 pounds unwashed Syrian, 60 bales East Indian and 5,000 pounds Russian Noils, private; 150 bales Fall California, at 19¢23c; 155 bales Spring do, at 25¢30c; 18,000 pounds scoured do, 60¢75c; 10,000 pounds lambs' do, 26¢31c; 15,000 pounds white Colorado, 25c; 15,000 pounds black do, 21¢22c; 30 bags Western Texas, private; 40 bags black pulled, 42c; 2,000 pounds superfine do, 48c; 2,500 pounds X do, 45c; 20,000 pounds do, 143 bags super do, and 50 bags No. 1 do, private; 25,000 pounds X and XX Ohio fleece, 55c; 3,005 pounds Wisconsin, 52 1/2c; and 1,400 pounds fat sheep, 37c cash.

Boston, April 24.—The Wool market is steady, with a fair demand from manufacturers. Prices are unchanged. Medium and No. 1 fleeces, combing and delaine selections, and good lines of super and extra pulled are in demand, and continue to be taken as fast as offered at full former prices; but fine fleeces of Australia still continue to drag, and there is no improvement in this description, nor is there likely to be at present, while the demand seems to run so much on other kinds. Transactions in pulled Wools continue quite large; 215,000 pounds have been disposed of during the past week, principally at 47 to 53c for supers. Some very choice Eastern supers have been sold as high as 56¢57 1/2c per pound, but these are extreme figures, and only obtained for fancy lots on which the shrinkage is quite small. Combing pulled is in demand, with sales of 130,000 pounds at 56¢59c. Several instalments of new California have been received, and other considerable supplies are near at hand, although the break in the Pacific railroad will keep the supply back. A lot of 60,000 pounds of new Spring clip sold at 33 1/2c, and 12,000 pounds at 21¢35c. Sales of the week have been 321,000 pounds at 14¢28c for Fall, and 22¢36c for Spring. There is a disposition to place the new Spring clip as fast as received, as there is no prospect of any favorable change, and in consequence nothing to be gained by holding on. The margin is very close, and holders will find it difficult to obtain cost for many lots near at hand. Included in the sales of Fall are 50,000 pounds very choice at 25¢28c, and 90,000 do at 23¢25c, but these are extreme figures and obtained for Wool lately received and of superior quality and condition to any Wool yet placed on the market.

Sheep Gnawing Their Wool.

It is safe to suppose, when herbivorous animals of any kind are found eating bones, etc., that their systems require something not supplied by their usual food. When sheep gnaw their wool, it indicates that they are suffering from the attacks of parasitic insects, some of whom are so small that they cannot be seen except by the aid of a magnifying glass; or that their systems are not properly supplied with material for forming the natural covering to the body.

In the West, where the soil is new, the natural supposition would be that the food would contain the elements necessary to the support of all portions of the animal economy; and such is the fact, except in exceptional cases. We believe that in those cases when sheep eat their wool, when the gnawing is not done to rid themselves of the intolerable itching occasioned by parasites, it is more often indicative of a morbid appetite due to disease, or an acquired habit, than from any disorganization of the system occasioned by the want of bone or hair-forming material, etc.—just, for instance, as fowls acquire the habit of eating their own eggs and shells or feathers.

In any case, the sheep should be carefully examined first for parasites, and if found, the proper wash should be used for their eradication. In addition, a very little sulphur may be given with good effect in their daily food.

If these be not found, it will be safe to conclude that the animals require bone or hair-forming material more than is already supplied. In this case there will be found nothing better than bone-raw meal finely ground and mixed with their food. In addition, nitrogenous food, as roots, oats, barley, etc., can be given. If Indian corn be largely fed, especially in connection with straw, then there will be a strong additional reason for following the course here laid down.—*Exchange.*

A DOG WITH THE MEASLES.—A house dog in Upton, Mass., had the measles simultaneously with the children of the family, from whom he caught the disease. He was carefully doctored, and was getting along finely, when one day he slipped out of doors and played in a snow bank. This indiscretion was fatal. He took cold and died.

PATRONS OF HUSBANDRY.

THE HEADQUARTERS of the California State Grange are at No. 6 Leidesdorff street, in rear of the Grangers' Bank of California, No. 415 California street, San Francisco.

To the Stockholders of the California Farmers' Mutual Fire Insurance Association.

NOTICE.—There will be a meeting of the stockholders of this company on Tuesday, June 1st, 1875, at their office, No. 6 Leidesdorff street, San Francisco, for the purpose of increasing the capital stock to Three Hundred Thousand (\$300,000) Dollars. By order of Board of Directors.

W. H. BAXTER, Secretary.

A Feast at Yountville.

EDITORS PRESS.—It is getting to be so frequent occurrence to see communications in your paper giving expression of the pleasures and enjoyment had at some harvest feast, which are becoming so frequent as hardly to be any longer specially noticed, although admitted as one of the greatest enjoyments of the many social features of our Order. I presume you are becoming wearied at so many repetitions of descriptive enjoyments; particularly as you do not have the opportunity of participating.

I wish you could have accompanied Brother Cressey and myself to Yountville last Saturday to meet with Napa County Council at 9 o'clock P. M., and after finishing up the work of the Council to have the pleasure of meeting with one of the most thorough, efficient working Granges of the State, in one of the best Grange halls—a large two-story building, the property of the Grange—witness the conferring of the 4th degree to a large class in masterly style, and then be called upon to assist in relieving the table of its immense weight of every conceivable viand, sumptuously and elegantly spread out, even the product of the vine and the orchard bottled up and corked tight, yet the simple application of a knife to the cork, and the cork by some mysterious pressure was forced to the ceiling, contents of the bottle distributed to goblets and from there disappeared somewhere.

After spending about two hours in eating, drinking and social conversation the gavel called us to order, and to the gratification of all it was announced that Brother Cressey was going to give us a talk. That brought the house down. (Did you ever hear him talk? If you have not, don't fail to go the first time you hear it announced he is going to meet with a Grange.)

For the first half hour it was rather hard on the Brother; for, to use his own language, "Chicken was high up; but little space between chicken and brains;" no obstacle too great for him to overcome was sustained in this case, and I think I can confidently assert that he is equal to any emergency, for I think I have seen many a one give up on much less chicken, turkey, etc., than he did. From nine A. M. to half-past four P. M., was one continued feast of business and social and instructive enjoyment.

St. Helena, Rutherford and Napa Grange were well represented, and all agree in admitting that it was not only a day of pleasure but of great benefit, and that much good will result from the valuable information and instruction given by the big-hearted Granger and by the noble examples and inspiration of the whole assemblage, live Grange of Yountville. Too much credit cannot be given to the noble sisters of that Grange; as the worthy brothers admit to them is due, in a great measure, the enviable success of that Grange, which now stands at the head of the list in carrying out the principles of our Order.

Hoping the fire of enthusiasm and love kindled in the hearts of all who had the pleasure of participating in that day of feasting will be spread to every Grange in the State, is the best wish I can make to all interested in the good work. Yours fraternally, A VISITOR.

[We hope "Visitor" will make his visits and reports frequent in the future.—Eds.]

Appointments for Bro. Cressey.

Bro. C. J. Cressey will speak for the business information and good of the Order at 1 P. M., in Stanislaus and Merced counties, as follows:

At Salida.....Friday, April 30.
Modesto.....Saturday, May 1.
Merced.....Monday, May 3.
Turlock.....Tuesday, May 4.
Ceres.....Wednesday, May 5.
Plainsburg.....Thursday, May 6.
Badger Flat (probably).....Saturday, May 8.

At other places on the west side of the San Joaquin, according to announcements by the Granges themselves.

Grangers Tide Water Warehouse—Committee Report.

EDITORS PRESS:—Please give notice in RURAL PRESS that the committee appointed at the State Grange to select suitable places at tide water for the location of warehouses have reported in favor of Antioch as one point for such location.

J. B. CARRINGTON,
Chairman Committee.

Relief Report from State Grange Agent.

Following is the report of the State Agent relative to funds and grain received by him for the relief of the Kansas and Nebraska sufferers:

Upon receiving the published letter from General Brisbin, appealing for aid for the sufferers from the grasshopper plague in Kansas and Nebraska, I issued a circular to the various Sub-Granges in the State, asking them to forward to me grain and money, which was responded to as stated below.

The first consignment of grain was received from Tomales Grange before the circular was issued.

From Tomales Grange, 3 sacks barley, 2 sacks oats, 9 sacks wheat; from Reading Grange, 137 sacks barley; from Castroville, 8 sacks barley; from Turlock, 1 lot 41 sacks barley; from Sacramento, 74 sacks barley, 4½ sacks flour, 1 sack clothes; from Lodi, 49 sacks barley; from Dixon, 37 sacks barley.

Cash.

Farmers' Union, San Jose.....	\$69 00
Rountree Station.....	64 65
Santa Clara Grange.....	26 00
Lodi Grange.....	10 00
Salinas City Grange.....	95 00
Sutter Mills.....	25 00
Paso Robles.....	11 00
Castroville.....	5 00
Antelope Grange.....	125 00
Total.....	\$430 65

With the money I received, I purchased barley and forwarded with that sent from the various localities to General Ord, at Omaha, for the relief of the Kansas and Nebraska sufferers.

It is due to the Central Pacific rail road to state that they have kindly brought large quantities of grain, etc., from various interior localities to this city and subsequently forwarded the same to the sufferers.

The various Granges throughout the State have appointed Committees to solicit contributions in money and grain which has been largely responded to, and such collections have been forwarded to Kansas and Nebraska direct from points where they have been made before my circular was issued. Brother W. H. Baxter, Secretary of State Grange, has also forwarded money sent to him, as has already been stated in the newspapers. I. G. GARDNER.

From the Granges.

Salinas Grange, No. 24, P. of H.

EDITORS PRESS:—At the last regular meeting the following resolutions were passed:

WHEREAS, Trade and interchange of commodities have been in general use from the earliest ages; it is a law of our nature, and upon commercial business rests the enjoyment of the people; and that all honorable and just business transactions are conducted upon the basis of equal and full weights and measures; and

WHEREAS, It has become the prevailing and general custom in the State of California for retailers and jobbers in commodities to sell a great share of their groceries and small articles of merchandise by count, purporting to be a given amount in weight or measure, when in reality they fall far short of the required weight or measure; and

WHEREAS, The present mode of selling by count subjects the purchaser or consumer to paying from ten to forty per cent. more for those goods than was agreed upon or contemplated in the purchase of the same, thereby defrauding the buyer; and

WHEREAS, The former has not only to give full weight, but by custom is expected to allow a tare of one half pound on each one hundred pounds of grain, two to three pounds on each sack of wool, and two pounds on each firkin of butter, therefore, be it

Resolved, 1. That in the opinion of the members of Salinas Grange of Patrons of Husbandry, in view of the growing evils and unsound business transactions at this time, it is our duty to do all we can to have all articles sold at full weight or measure.

2. That we will use all lawful and just measures in our power, consistent with our circumstances and conditions in society, to bring about the change in trade and traffic expressed in the foregoing resolutions.

3. That a copy of these resolutions be sent to the State Grange and to the RURAL PRESS for publication.

C. B. WESTLAKE, Sec'y.

Salinas City, April 22.

Weldon Grange, Kern County.

EDITORS PRESS:—Thinking that you might want to hear a little from this vicinity I take the liberty to write you a few lines, asking beforehand to have some consideration, as writing is a business new to me.

Our Grange is progressing finely, our number is increasing, and hopes are entertained that in a short time the principal part of this settlement will join us, so that we may be able more fully to realize those benefits, as well socially as commercially, which all Granges of large memberships are now enjoying.

At the last meeting we conferred the fourth degree upon Brother McCane, and as usual had a harvest feast on that occasion. Our sisters had a plentiful supply of the most palatable food and delicacies, everything the most fastidious gourmand could desire was spread upon the hospitable board of our Grange, free to all who had a mind and appetite to partake thereof. CLIO.

April 17, 1875.

Galt Grange.

EDITORS PRESS:—Our Grange has prospered very well as to numbers, having about seventy members. We think we believe in Grange principles, but as yet have failed to take any action in order to secure the benefits that may be derived through the Order. We did send a delegate to the Grange convention in February last, but have not really heard much from him.

April 25th, 1875.

Grangers' Business Association of California.

This is designed to be the head and center of the system of incorporations. It was incorporated on the 17th of March with a capital of \$1,000,000. Its place of business is San Francisco, and its manager elect, T. J. Brooke, of Stockton. The object of this association is not, as has been stated, to go into a general merchandising business, but to deal as factor and broker, and not otherwise, in all kinds of agricultural produce, live stock, wool, agricultural implements and general merchandise. Also, to ship grain and other produce to foreign and domestic ports. They say: "As Grangers it is not our purpose to make war upon any legitimate business, nor to interrupt commerce in any of its established channels. But we propose to protect ourselves by all proper means, and to avoid all unnecessary expense in the transportation of our products, thereby securing better pay for our labor and the use of our capital." The Directors of the Association are representative men from among the wool growers, fruit growers, grain growers, dairymen, etc., and they constitute a Board that will compare favorably with any similar body of men on the coast. The Business Manager is now at his post, (which is temporarily at No. 6 Leidesdorff street), and expects, as soon as a suitable location can be secured, to open out in due form. If managed with the same prudence that has marked the conduct of their other enterprises, there is no reason why this house should not become one of the foremost in magnitude and profit. The general agency, of which it is the outgrowth and successor, under the management of I. G. Gardner, has secured vast benefits to its patrons, though limited in its operations by want of capital. So satisfactory has been that experiment that the Grangers are willing to risk a capital stock of \$1,000,000 in its enlargement. If they succeed, who will be hurt? If they fail, who will rejoice?

The Grangers' Business Association, of Dixon, filed articles of incorporation with the Secretary of State on Wednesday, 21st instant. Capital, \$100,000. Shares \$25 each. The South Bay Railroad and Land Company, capital stock \$300,000 also filed articles of incorporation. The object is to run a railroad from the end of Humboldt Bay to Yager creek.

WILL REMAIN FOR A TIME.—I. G. Gardner, formerly State Grange Business Agent, will remain at headquarters for a time for the convenience of those who may have important business with the Agency, and for any information or reference that may be required of him.

ON TUESDAY next the Executive Committee hold an adjourned meeting.

HORTICULTURE.

Value of Green Fruit Entered for Consumption at the Port of New York, from January 31, to December 31, 1874.			
ARTICLES.	Per Cent.	1873.	1874.
Oranges and Lemons	20	\$2,007,658	\$1,131,531
Pineapples	20	199,426	21,883
Benanas and other Green Fruit	30	11,004	free
Apples	10	5,070	free
Peaches and other Green Fruit	10	161,833	free
Cocoanuts	10	108,257	10,832
Guavas	10	192,250	free
Grapes	10	175,305	25,061
Pineapples	20	35,900	7,000
		\$2,800,810	\$1,174,201
			\$3,025,474
			\$2,131,501

The Paw-Paw.

This subject of the vegetable kingdom belongs to the "Custard apple" family. Paw-paw of the United States—a Creole name. It grows West, Middle and South, but is not known in New York or Canada. It is more indigenous to the South than to the West. Found abundant on the banks of the Susquehanna, from below Harrisburg to the Chesapeake bay. It is oftentimes only seen as a shrub or a small tree, or under the boughs of the majestic forest trees. They are very numerous between St. Joseph and Kansas City, on the banks of the Missouri, where they grow under the mammoth "cotton-poplar," and are generally looked upon as "underbrush." They are inveterate sprouters from the root, and come up almost as thick as hemp in a wild state, and that accounts for the fact that they never appear very large. They are so numerous on the banks of the Missouri that the vineyardmen

use the tender herb to tie up the grape vines in their vineyards. When one is kept clear of other trees, it will get from six to ten inches thick in the trunk, and on the southern river bottoms they have been known to grow from fifteen inches to two feet thick. The paw-paw is about being introduced as a common fruit, and no doubt will be sold by nurserymen everywhere.

These trees, when brought under cultivation in yards, will form beautiful heads, foliage and appearance resembling the magnolia family. Flowers precede the leaves in early spring, and look much like the common "shrub" of our gardens. There are several varieties of them. The best variety ripens in the middle of September. It then begins to drop off, yellow and soft, very delicious to those who like them. There are other varieties ripening in October, or about the first frosts. They are not as large, nor of as good a quality as the former kind, and for a long time remain green and hard, or turn blackish and become internally affected with apparent disease. The flavor of these is inferior, but no doubt they might be improved by cultivation.

The paw-paw, or "pawpaw," belongs to the genus *Asimina*, and to the order *Anonaceae*. Four species are found within the limits of the United States, but there are others within the tropics.—Exchange.

American Pomological Society.

A brief notice was given in a recent issue of our paper of the fifteenth session of this society, which will be held in the city of Chicago in 1875, commencing Wednesday, September 8th, at 10 o'clock A. M., and continuing for three days. We would, however, again call the attention of the readers of the PRESS to this interesting affair.

The approaching session is the subject of unusual interest from the fact that the society, having at its last session accepted an invitation to participate in the International Exhibition at the Centennial celebration, will make preparations at the coming meeting for carrying out the arrangements for that occasion in a proper manner.

For the benefit of those who wish to participate in the approaching session we extract the following from the circular issued by the society:

"Arrangements will be made with hotels, and as far as possible with the various railroad lines terminating in Chicago, for a reduction of fare. Wherever possible, it would be best that such arrangements should be made by the various delegations with roads in their localities, as rates made by Chicago roads will apply only to their lines.

Members, delegates and societies are requested to contribute collections of the fruits of their respective districts, and to communicate in regard to them whatever may aid in promoting the objects of the society and the science of American pomology. Each contributor is requested to prepare a complete list of his collection, and to present the same with his fruits, that a report of all the varieties entered may be submitted to the meeting as early as practicable. By vote of the society, no money premiums will be offered, but a limited number of Wilder medals will be awarded to meritorious objects.

At the same time and place with the Pomological Society's exhibition of fruits, the Illinois Horticultural Society will hold a grand exhibition of plants, flowers, and other products of horticulture, by which an increased interest will be given to the occasion.

Packages of fruits, with the names of the contributors, may be addressed as follows: American Pomological Society, care of O. B. Galusha, Chicago.

All persons desirous of becoming members can remit the fee to Thomas P. James, Esq., Treasurer, Cambridge, Mass. Life membership, twenty dollars; biennial, four dollars. Life members will be supplied with back numbers of the proceedings of the society as far as possible.

MARSHALL P. WILDER,
President, Boston, Mass.
W. C. FLAGG,
Secretary, Moro, Ill.

Among those who are expected to deliver essays on this occasion we find the name of B. S. Fox, of California. This State is also represented in the list of Vice-Presidents by L. A. Gould, of Santa Clara. We hope that California will be still further represented at this meeting, and that inducements will be offered for holding the succeeding session in this State.

KILLING CABBAGE WORMS.—A correspondent of the New York Tribune says: "In June last, in going through my early cabbage, I found one completely covered with the worm. Immediately I obtained a handful of bran and sprinkled it over the head. The worms began to squirm and fall off the cabbage, and wherever the bran touched them they seemed to be in pain. The following morning they were all dead. Since that time, on the first appearance of the worm, I sow the bran. Some seasons it may be necessary to do it the second time. If the worms are very thick, it is better to take a handful and sprinkle it over the cabbage. A hundredweight is ample for an acre." This is simple, cheap and easily tried. Possibly, it may be the very thing we have been looking for.—Missouri Farmer.

AGRICULTURAL NOTES.

BUTTE.

FAILURE OF FRUIT.—Butte Record, 24th inst.: Abram Bidwell informs us that the fruit crop of the Bidwell ranch will be almost an entire failure, the apples, peaches, apricots, plums, etc., being nearly destroyed by the severe frosts. The cherry crops, he thinks, may be passably good.

AN OPINION.—The same paper says: We have been shown grain that is said to have been destroyed by frost. The stalk appears perfectly healthy and vigorous, while on opening the stalk the young head is found to be dead or dying. How extensive this may be it is not generally known. We are disposed to believe, however, that it is the result of too many stalks in a stool, instead of the frost, and that fields thus affected will produce a good crop.

COLUSA.

THE WEATHER AND THE CROPS.—From the Colusa Sun, 24th inst.: Although we have had no rain, the situation looks a little more promising than it did a fortnight ago. Most of the summer fallow of the county will, it is now thought, make grain worth cutting, and some of it will make a good average crop. Every one has now quit hoping for rain in time to be of advantage to the crop, but all hope for a continuance of the south wind, which has favored us until yesterday morning, when it was again in the north. The summer fallow on the black and red land is nearly all looking well, and a great deal on the sandy and alluvial, but as a rule this class of land will not turn out well. Our inquiries have been close and searching about all parts of the county, and we are inclined to the belief that we will have over half an average crop if we do not have too much north wind.

CONTRA COSTA.

FAVORABLE WEATHER.—From the Contra Costa Gazette, 24th inst.: The weather, on the whole, for the past ten or twelve days, has been quite favorable to the grain and grass, having been moderately cool with dewy nights. We had as fine a prospect of rain on Wednesday as ever subjected us to disappointment; but the appearances all went away without giving us a drop. We can make tolerable crops in this section without more rain, if we have continuous cool and occasionally foggy and cloudy weather, with prevailing wind from the west or south of west, but excessively hot weather or north wind for any extended term will leave us with poor prospects of anything but a very skim harvest; and yet there are few sections of the State likely to do as well as ours, without much more rain.

GRAIN ABOUT ANTIOCH.—The same paper says: In a brief opportunity we had of seeing the grain fields about Antioch last Saturday, we were agreeably surprised to find them looking so well and promising a good yield, notwithstanding the light winter rainfall and the spring drought. The fallowed grain was about ready to show its heads, and compares well in appearance with any we have noticed on this side of the Willow Pass divide, and the grain this side of the grant also looked well.

FRESNO.

ALFALFA.—The *Expositor* of the 19th inst. says: Dan Fuller brought to this office on Monday a sample of 50 acres of alfalfa, which is just being cut for hay at the Gould farm. The sample shows an average height of thirty inches, and is thrifty and tender. There is about 100 acres of alfalfa on the farm. Adjoining the Gould farm Wm. Helm has a forty-acre field of alfalfa which produces wonderfully. Aug. Weihe has about 30 acres on his farm which is equal to that first mentioned.

KERN.

A LARGE YIELD PROBABLE.—The *Bakersfield Courier* of the 24th says: Yesterday some one from the Cotton ranch left in our office stalks of alfalfa, barley and wheat of extraordinary length. It is easy to see, even from a distance, that this fine farm will produce a remarkable crop. The average yield will probably be nearly up to the limit nature admits of. But this farm offers no exception to the general excellence of the crops everywhere throughout the valley. We have, on the average less rain than any other part of the State, but water for irrigation is abundant, and the proper methods of applying it are becoming better understood.

MARIN.

DAIRY PROSPECTS.—From the *Marin Journal* 22d inst.: This season opened earlier by several weeks than usual with our dairymen, the feed being first-rate in February. But the law of compensation is now seen in a corresponding early shrinkage. Mr. George S. Haven, of Novato, informs us that cows in his section are falling down to what they usually give at the middle of May. The same effect is marked in the hay crop. It was thought that the thick body and high texture would preserve the moisture in the ground to the usual time for cutting, and the result would be a prodigious crop. But the high winds of March and the warm sun of the past three weeks have matured the grass, and haying is already far advanced. Several parties in Novato have finished or nearly finished mowing, and Sweetzer & De Long will commence next Monday, if not before. This is fully six weeks earlier than haying usually commences.

MERCED.

THE OUTLOOK.—From the *San Joaquin Valley Argus*, 24th inst.: The product of our valley farms will be great this year, notwithstanding

the drought, as there is a large area of summer fallowed land in cultivation that will yield considerably above half a crop, even should there be no more rain during the season. We have conversed with farmers from all parts of the county east of the San Joaquin river this week, and all speak more encouragingly of the prospects for crops than we expected, and we doubt not there will be harvested the usual surplus over and above the home consumption for shipment.

NAPA.

EARLY GRAIN DOING WELL.—Report from Napa under date of April 20th says: Weather fine, with foggy mornings. The early grain is doing well, but the late sown grain begins to show the necessity of rain.

PLACER.

FRUIT PROSPECTS.—From the *Auburn Herald*, 24th: It is quite certain now that the heavy frost a few weeks ago did not do as much damage here as was at first feared. The prospects for an average fruit crop here are good. In some parts of the State, though, and, indeed, in some portions of Placer county, the damage to the growing fruit is fully as great as was at first stated.

SAN BENITO.

BEYOND AN AVERAGE.—From the *Hollister Enterprise* of April 24: From present appearances it is a pretty well settled fact that this county will produce a full half crop of wheat this season on an average, even if we get no more rain. The ground is probably not so moist as last season, but grain looks better than it did at this time last year. In fact the early sown looks vigorous and fine. It was feared that the late frosts had injured it to a considerable extent, but happily it seems not to be the case.

TALL GRAIN.—The same paper says: Uncle Dan McCray left on our table this week a specimen bunch of Sonora wheat, of which he has 40 acres growing near town. The stalks are headed out and measure an average of nearly four feet. Mr. McCray has also a large field of Australian wheat that looks vigorous and promising.

SAN LUIS OBISPO.

ABOVE AN AVERAGE YIELD.—Early sown grain, says a report from San Luis Obispo, is looking remarkably well, and will return above an average yield. Wheat on the Salinas bottoms, near San Miguel, was never better. Late sown grain will be light and cut for hay and feed. The fogs that drift inland during the night and overhang the country until 8 to 9 o'clock in the morning go far towards supplying the necessary moisture for all cereals. Potatoes and corn look well and were not injured by the frosts. The weather continues warm and pleasant.

SANTA CLARA.

FAVORABLE REPORTS.—The reports are very favorable of the grain crops about Gilroy. They look exceedingly well, and farmers in that section expect a full average crop. Wheat and barley fields along the foothills and mountain sides, both east and west of this valley, look very promising and will yield finely. In the valley, especially toward the center of it, about San Jose, the crop will be light, even in early sown fields. The late sown fields will be a total failure. It is estimated that the grain produced in Santa Clara county this year will amount to about half the amount of a full crop.

SONOMA.

ENCOURAGING.—The *Petaluma Argus* feels very much encouraged about the grain prospects in that locality. In its issue of the 23d we find the following: On Thursday we had occasion to ride very near to the summit of Sonoma mountain. On our trip we took particular notice of the growing grain, and must confess that our faith in a rousing crop this year was materially strengthened. The grain fields both in the valley and on the mountains are looking finely, the crops have a healthy, vigorous appearance, and are certainly far enough advanced to insure a good yield. In fact we think that the harvests this summer will show an increased yield over previous seasons.

ANOTHER SECTION.—The *Russian River Flag* speaks discouragingly of crop prospects in the northern part of the county. It says: In Knight's valley, Joseph Alexander has this early been obliged to take his sheep from his 1600 acres over into Alexander valley, on account of insufficient grass in the former. We learn that even in Alexander valley the prospect is looking gloomy. Wm. Mulligan expects only half a crop of wheat and barley from his 200 acres. Windsor's and Benjamin's crops are looking poor. In some cases the grain is heading out, although it is only a foot high.

TEHAMA.

ALFALFA ON SAGE LAND.—Says the *Lassen Advocate*: There have been many and frequent inquiries made from different sections of the country as to whether alfalfa can be made to flourish on our sage lands. There is no class of lands better adapted to its growth, naturally, than these. It has been tested in many places in this country, and there are large fields of it grown on sage lands in Nevada, from which two and sometimes three crops are cut per season. It requires careful irrigation the first season in order to get a healthy and vigorous start, but afterward it will grow with as little care as any kind of grass.

TUOLUMNE.

EFFECTS OF DRY WEATHER.—From the *Democrat* of the 24th: The dry weather is telling on vegetation, which is drying up and losing

its fresh, green appearance. Rain will do it vast amount of good yet, but in a short time a will do more harm than good. The crop prospects are not cheering, with bright, sunny weather and the thermometer ranging above eighty.

YOLO.

FAILURE OF CROPS.—The *Yolo Mail* of the 24th says: We are reluctantly compelled to say that our wisest and best farmers are of the opinion that the failure of crops will be very general, and that the late or winter sown wheat must succumb to the irrepressible north winds. The blades of wheat have been, for the past ten days, holding up their straightened leaves, pointing heavenward and praying for rain. We noticed one field turning yellow, and the leaves folded like a scroll. The whole of it was almost past use for good hay. A field of nice looking wheat, belonging to J. R. Jones, near Cottonwood, was headed out beautifully but the heads were white, as though killed by frost. The harvest in Yolo will be light.

Agricultural Items.

FARMERS from the southeastern portion of Sacramento county give doleful accounts of their prospects generally. Grain and grass have in a great measure dried up, so much that not more than half a crop is expected.

RABBITS are so thick in portions of Los Angeles county that on Judge Lindley's farm it is feared the wheat crop, though five feet high and heading finely, will have to be cut for hay to save it.

THE premium list made out for the coming county fair, which commences at San Jose, October 4th, is considered the most complete ever offered by the Santa Clara Valley Agricultural Society.

WITH the prospect of a drouth the interior papers are deploring the economy which fails to hoard the rain when it does fall. "You never miss the water till the well runs dry."

THE Common Council of Santa Barbara will probably pass an ordinance prohibiting bees being kept within the city limits, as they are said to injure the grapes.

PETALUMA claims to ship more cherries to San Francisco than any other place in the State. The crop this year promises to be larger than usual.

THE grape vines in San Diego county are full, and the indications are favorable for an unusually good crop. All kinds of fruit trees are doing well.

SOME of the farmers near Woodland have already begun to irrigate from the corporation ditch. The water costs \$4 per cubic foot for 24 hours.

CHIPMAN & MERRILL propose sowing two tons of alfalfa upon the sage lands near the terminus of the Willow creek canal, in Lassen county.

THE wheat in some parts of Butte is looking so badly that farmers are preparing to cut it for hay.

It is estimated that the honey product of San Diego county this year will be 600 tons. Last year it was 200 tons.

MORE rain is needed in Placer county. In fact there is no place in the State where it is not.

THE want of irrigation causes considerable irritation among the farmers of the San Joaquin valley.

CATERPILLARS are doing considerable damage to fruit orchards in the vicinity of Petaluma.

BAMBOO is successfully grown in California. No bamboozing about this.

THERE are 700 tons of grain stored in warehouses at Gilroy.

Industrial Items.

THE West Coast manufacturing company has 250 men at work, fifteen hours per day, turning out the furniture for the Palace Hotel, which the contract requires to be finished by the first of July. The order amounts to over half a million dollars.

A COMPANY has been organized in Los Angeles to bore for petroleum on the lands of a Mr. Boushary, near the city. The indications of oil are said to be quite favorable.

THE Los Angeles *Express* expects General Forrest, of Memphis, Tennessee, to reach that place in May with 1,000 immigrants, more or less.

THE Grangers' Business Association of Dixon filed articles of incorporation with the Secretary of the State.

SIXTY men are at work on the new road between Santa Rosa and Napa, and expect to complete it in about thirty days.

GILROY presents, in the estimation of the *Leader*, great advantages for the erection of a tannery.

TRACK laying commenced on the Walla Walla Valley railroad on the 12th instant.

A MANUFACTURING city is what the *Amador Ledger* would have Lone city become.

WAREHOUSES are to be erected and a wharf constructed by the Grangers at Martinez.

THE Petaluma woolen mill is nearly completed.

A NEW brick yard has been started in Chico.

General News Items.

A YOUNG German, while seated in Portsmouth square, one day last week, took a derringer from his pocket and applying the muzzle to his breast, deliberately pulled the trigger. Much to the Teuton's disappointment, the wound resulting did not prove immediately fatal, and he found himself obliged to hear what the public thought of his suicidal attempt and the cause leading thereto, as expressed in a note found in his pocket.

Two employment agents in Virginia were arrested last week for swindling immigrants out of a few dollars, under the pretence of furnishing them employment. The swindlers were adjudged guilty on seven distinct charges, and on the first fined each \$200 and in default of payment imprisoned for 90 days.

A LATE London dispatch states that considerable excitement prevails in Athens over the approaching elections, and that a state of siege is reported as impending. The Government is concentrating 5,000 soldiers in Athens, and it is supposed it intends to raise the army to a war footing.

CHARLES E. PICKETT, of this city, has been released from confinement in the county jail, where he has been since August last, under a sentence for alleged contempt of court. Mr. Justice Crockett was the court for which the philosopher expressed his contempt.

THE steamer *Ventura* of G. N. & P. line was lost off Point Sur on the night of April 20th. Over 100 passengers were aboard, but all reached the shore safely. The loss, uninsured, is estimated at \$150,000.

THREE steamboats were burned at New Orleans on the 23d inst., and it is reported that 100 persons lost their lives by drowning while attempting to escape from the flames.

AN Oregon paper tells of a deaf mute who came into its composing room one morning and committed to memory all the boxes of the capital and lower cases, and set 1500 ems during the day.

A CHANGE has been made in the C. P. R. R. time table. Overland trains leave at 8 instead of 7 A. M., as heretofore, and arrive at 5:35, instead of 8:10 P. M.

THE tannery of John F. Shultz, at Ora Leva, near Forbestown, in Butte county, was completely destroyed by fire on the night of the 19th inst.

A BANQUET was given to Carl Schnitz by a large number of distinguished citizens in New York last Thursday evening. The ex-Senator is about to sail for Europe.

THE old foundry building in Sacramento, belonging to the C. P. R. R., was burned last Saturday night.

A CAR attached to a train on the N. P. R. R. was blown from the track near Saucelito last week, and rolled down an embankment.

ATTORNEY General Williams has resigned and Judge Pierpont, of New York, is reported to have been tendered the office.

It is said that \$100,000 worth of cattle and horses have been killed by buffalo gnats in Tennessee within the last week.

MEMORIAL day was observed in Georgia on the 26th inst., by the decoration of the graves of the Confederate dead.

WM. M. BELL, an agent for Cutting & Co., in this city, was thrown from his wagon one day last week and killed.

It is reported that the grave of Vasquez has been opened, and the head taken from the body and carried off.

THE Roman Catholic church in San Jose was destroyed by fire on the 23d inst.

AN Episcopal church is to be built at Watsonville, Santa Cruz county.

A FIRE in Watertown, N. Y., last Tuesday, destroyed the main portion of the city.

PAUL BOYNTON will make another attempt to swim the English Channel.

A NEW military company is being organized in Marysville.

THE San Francisco Board of Provision Paokers has been organized.

THE Pennsylvania coal mine strike is ended.

SANTA CRUZ wants a fire department.

Coming Fairs and Exhibitions.

[Officers of industrial societies will please inform us of their approaching fairs and exhibitions.]

The Centennial International Exhibition, at Fairmount Park, Philadelphia, will open on the 19th of April, 1876, and following.

International Exhibition of Chili, Santiago, will open nominally August 15, 1875, continuing until April 2, 1876. Officially from September 16, 1875, to January 1, 1876. Articles for exhibition may be entered at any time from the 15th of August to the 16th of September and can remain on exhibition if the exhibitor so desires until the 2d of April following.

Tenth Industrial Exhibition of the Mechanics' Institute of San Francisco, commencing Tuesday, August 17, 1875, to continue open at least one month.

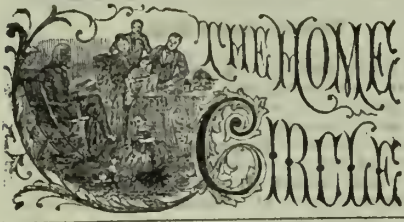
American Pomological Society, Fifteenth session, at Chicago, Wednesday, September 8, 1875, continuing for three days.

The Alabama State Grange Fair, at Selma, Alabama, Tuesday, October 26, 1875, continuing five days.

The Best Agricultural Paper in America.

PORTERVILLE, February 10, 1875.

TO THE EDITORS AND PUBLISHERS OF THE RURAL PRESS:—Dear Sirs: I am going to change my residence, and I will take the RURAL PRESS again, when I get settled, and will get back numbers. I can say without flattery you that it is the best agricultural newspaper in America, and I will use my influence in your behalf. Yours with respect, JOHN MCINTIRE, JR.



My Mother's Hands.

Such beautiful, beautiful hands!
They're neither white nor small;
And you, I know, would scarcely think
That they were fair to all.
I've looked on hands whose form and hue
A sculptor's dream might be;
Yet are these aged, wrinkled hands
Most beautiful to me.

Such beautiful, beautiful hands!
Though heart were weary and sad,
These patient hands kept tolling on,
That the children might be glad;
I always weep, as looking back
To childhood's distant day,
I think how those hands rested not,
When mine were at their play.

Such beautiful, beautiful hands!
They're growing feeble now,
For time and pain have left their mark
On hands, and heart, and brow.
Alas! alas! the nearing time,
And the sad, sad day to me,
When 'neath the daisies, out of sight,
These hands will folded be.

But oh, beyond this shadow-land,
Where all is bright and fair,
I know full well these dear old hands
Will palms of victory bear;
Where crystal streams through endless years,
Flow over golden sands,
And where the old grow young again,
I'll clasp my mother's hands!

The Art of Thinking and the Habit of Observation.

We have frequently directed the attention of parents and instructors to the importance of teaching children to think, and we now quote, from the *Philadelphia Ledger*, some apposite remarks on the subject:

"In very early life, the perceptive faculties are the principal channels through which we can reach the mind. Closely connected with this subject is the cultivation of the thinking powers. The two are indeed so intimately blended that neither can be effectually improved without some increased development of the other. In learning to see and hear with delicate accuracy, we insensibly strengthen our powers of thought, and accustom them to work more effectively. Still the operation of thinking deserves a far more systematic training than it usually obtains.

"When we are striving for success or excellence in any special pursuit, we think to some purpose. Our will concentrates our thoughts to the point in question, dismisses summarily all irrelevant subjects, presents the matter in its various bearings, with some degree of logical sequence, and rarely allows the mind to drift away from it until some definite result has been obtained. There is a considerable portion of every one's time in which nothing but thinking can be done. There is time spent in oars, where even reading is injurious; and there are times of waiting, resting and enforced inaction, when the mind has undisturbed opportunity for effective operation. Then, too, there are many employments so mechanical as to claim no portion of the mind's aid. When we have learned to do anything 'without thinking about it,' the thoughts necessarily run into other channels. Much manual labor is of this description. A distinguished prisoner of war, of large mental resources, being allowed to choose his employment while in confinement, selected one so simple as to require neither skill nor thought, assigning as a reason that, though his hands would be occupied by compulsion, his mind at least would continue his own and remain in freedom. We all have some of such work, and many have much. Now, if we had learned to employ this time in clear and consecutive thought—it our will could control our reflections, directing them in definite channels, and aiming to reach some well defined conclusion—we can hardly compute how great an effect would be produced in strengthening our mental powers, in maturing our judgment, in bringing us to the knowledge and appreciation of truth, and thus of increasing our solid happiness and our permanent value to the community.

"The best exercise of every faculty is the chief road to true enjoyment, and no one who has once tasted the pleasures of thinking to a purpose will ever willingly allow his mind to dissipate in wandering thoughts and day dreams. Neither is such discipline so difficult as some imagine. If begun in early life, by awakening the childish interest in what is seen and heard, alluring the mind to reflection by question and answer, and accompanying the thoughts to dwell for short periods, but intently, upon familiar subjects, it will become pleasant exercise, and gradually grow into the habitual tenor of the mind. What we truly will do is already half accomplished; and the watch thus placed over the thoughts will, of itself, reduce to order and regularity much that is now chaos and confusion. It is by no means necessary that the subjects thus mentally discussed should be remote or abstract, on the contrary, let them be matters familiar to our

minds and agreeable to our tastes. Let the memory please us with pictures of the past, and the imagination revel in beauty of scene or heroism of deed. Let the business man revolve the scheme which he longs to execute, and the philosopher meditate on the principles of life. But whatever be the subject, let the thoughts pursue it with a consistent progress that shall eventuate in some real benefit to the mind."

Similar in nature and importance is the habit of rapid and accurate observation, the great value of which was the subject of an address to the Dairymen's Association, delivered by Hon. Horatio Seymour. In the course of his remarks, he said:

"It seems singular that some men pass through life without observing things which come before their eyes almost daily. An intelligent farmer once told me that he would not recognize any of the horses belonging to his neighbors, excepting those noticeable from some peculiarity of color. A Chicago merchant, who daily drove his horse eight or ten miles, told us he had never noticed any difference between trotting and pacing.

"A college president is said to have made the question 'in which way do the seeds lie in an apple?' a test of the habit of observation among his students. Our tests with this question would indicate that more than one half of the average of men and women either don't know, or will answer incorrectly. We once received a well written essay on the value of observing closely, yet there was not a capital letter or a punctuation mark in the half dozen pages. Many such instances could be given, were it necessary.

"This matter is not one of slight importance. The carefully observant man will see things which will be of pecuniary importance to him, while his ill-trained neighbor may lose by not seeing. The farmer with habits of observation will notice slight symptoms of illness in his animals or plants; will readily see the effect of this or that practice; will much more quickly discover countless little things which, if neglected, may result in serious loss.

"As in the case of habits generally, much can be done in childhood, and it certainly should be the duty of parents and other teachers to help children to learn to observe carefully, quickly, accurately. It is told by some one that in his childhood he practiced running past a shop window and then stopping to describe as many articles as he could recall, and in this way acquired wonderful quickness of observation. There are hosts of points to which a farmer's boy should have his attention called at an early age. Suggestions as to the mode of growth of plants, the form of a leaf, growth of a fruit, or the pointing out of peculiarities of different classes of animals, may do him great good in developing this habit, and also have a marked effect in interesting him in his calling.

"This habit of observation should not be confined to the things we see alone, but should extend to the things we hear, and those we read as well. In this latter matter, there is great lack. Many read to little profit because they have not trained themselves to observe carefully."

ESCHEATED ESTATES.—Some idea of the amount of money which goes to the banks and holders of money loaned in this State from persons who die without having known heirs or wills, may be inferred from the following suits recently commenced in this city: Complaints were filed yesterday in the Third District Court in three suits of unusual interest. The actions are brought by the State Controller, on behalf of the State, to recover from the several savings banks such of the funds in their possession as have reverted to the State by reason of the failure of heirs on the death of depositors. The *Hibernia Savings and Loan Society* is sued for \$800,000; The *Savings and Loan Society* for \$600,000, and the *French Savings Bank* for \$480,000. The plaintiffs are represented by Sullivan & Meighan, of this city, and Creed Haymond, of Sacramento.

KEEP TO ONE THING.—We earnestly entreat every young man after he has chosen his vocation to stick to it. Don't leave it because hard blows are to be struck, or disagreeable work performed. Those who have worked their way up to wealth and usefulness do not belong to the shiftless and unstable class, but may be reckoned among such as took off their coats, rolled up their sleeves, conquered their prejudice against labor, and manfully bore the heat and burden of the day. Whether upon the old farm where your fathers toiled diligently, striving to bring the soil to productivity, in the machine shop or factory, or the thousand other business places that invite honest toil and skill, let your motto ever be perseverance and industry.—*The Rock*.

THE SPELLING MANIA.—The following is one of the sweet little ditties which the present spelling mania has created:

Oh, lead my infant feet to walk
Into the spelling school;
Let other children sneer and laugh
At orthographic rule.

But me that better way still lead
Till perfectly I spell;
So may I shun the path that leads
To where Josh Billings fell.

A LIE has no legs, and cannot stand; but it has wings and can fly far and wide.

It is impossible for a woman to have the last word with a chemist, because he always has a "retort."

Long Words.

"Rob," said Tom, "which is the most dangerous word to pronounce in the English language?"

"Don't know," said Rob, "unless it's a swearing word."

"Pooh," said Tom, "it's stumbled; because you are sure to get a tumble between the first and last letter."

"Ha! ha!" said Rob. "Now I've one for you. I found it one day in the paper. Which is the longest word in the English language?"

"Valetudinarianism," said Tom promptly.

"No sir, it's smiles, because there's a whole mile between the first and last letter."

"Ho! ho!" cried Tom, "that's nothing. I know a word that has over three miles between its beginning and ending?"

"What's that?" asked Rob, faintly.

"Beleaguered," said Tom.

MACAULAY'S TRIBUTE TO THE MOTHER.—Children, look in those eyes, listen to that dear voice, notice the feeling of even a single touch that is bestowed upon you by that gentle hand. Make much of it while yet you have that most precious of all good gifts, a loving mother. Read the unfathomable love in those eyes; the kind anxiety of that tone and look, however slight your pain. In after life you may have friends, and fond, dear, kind friends; but never will you have again the inexpressible love and gentleness lavished upon you which a mother bestows. Often do I sigh in my struggles with the hard, unceasing world, for the sweet, deep security I felt when, of an evening, nestling in her bosom, I listened to some quiet tale, suitable to my age, read in her untiring voice. Never can I forget her sweet glances cast upon me when I appeared asleep; never her kiss of peace at night. Years have passed since we laid her beside my father in the old churchyard; yet still her voice whispers from the grave and her eye watches over me as I visit spots long since hallowed to the memory of my mother.

A HINDOO priest called in all the members of a large family, one of whom was known to have committed a theft, and addressed them: "Take each of you one of these sticks, which are all of equal length, put them under your pillow to-night; I do not at present know the offender, but you must return the sticks to-morrow morning, and the one belonging to the thief will have grown an inch in the night." The family retired to rest, but before he went to sleep the man who had committed the theft, thinking to outwit the priest, cunningly cut off an inch from his stick, firmly believing that it would by this means attain the exact length of the others by the next morning. The sticks were returned, and by comparing them the priest was able to pick out the offender, to his great surprise and dismay.

THE OPPRESSED SEX.—What will those of our fair readers who are dissatisfied with the position of women in America say when they learn what she has to suffer in India? Among other restrictions, the Hindoo bible forbids a woman to see dancing, hear music, wear jewels, blacken her eyebrows, eat dainty food, sit at a window, or view herself in a mirror during the absence of her husband; and it allows him to divorce her if she has no sons, injures his property, scolds him, quarrels with another woman, or presumes to eat before he has finished his meal.

POLITENESS AT HOME.—Always speak with the utmost politeness and deference to your parents and friends. Some children are polite and civil everywhere else except at home; but there they are coarse and rude enough. Nothing sits so gracefully upon children, and nothing makes them so lovely, as habitual respect and dutiful deportment towards their parents and superiors. It makes the plainest face beautiful, and gives to every common action a nameless but peculiar charm.

A BOY'S LETTER.—The little boys down in Maine begin to write letters early. Here is one that a little fellow in Auburn wrote to his brother, the other day: "Eat your bread and butter up Jony. don't eat half of it up and leave the other all torn and bitten or the crust at the sides of your plate. Then the highard girl will throw them away. yn would wast the nice brod that papa bys for us and brijet makes."

Mrs. ANN H. JUDSON was charged with extravagance in dress. The suit which she wore when she went out begging money from the poor but pious, was said to be worth \$1,200. It consisted of a cashmere shawl worth \$600, a leghorn hat costing \$150, lace on her dress, \$150, and \$300 worth of jewelry! The matter was investigated by a competent committee. Behold the result. They reported that the shawl cost \$25, the hat \$8.25, she had no lace, and less than \$5 worth of jewelry!

We publish this reminiscence for the benefit of some who, like this noble woman, have felt the keen edge of slander, but for whom no committee will interest themselves. What of it? Angelic purity would excite the envy of some spirits. The traducers who walk about us, and manage to obtain the recognition of decent people, are, sooner or later, found out.

THE lazy schoolboy who spelled Andrew Jackson "An Jaxon," has been equaled by a student who marked the first of half a dozen new shirts "John Jones," and the rest "do."

Active Old Men.

A. T. Stewart is seventy-four, and, being the owner of many millions, might indulge in an easy mode of life, but such is not his disposition. This circumstance leads a correspondent to observe that New York contains a remarkable group of laborious old men—toilers *con amore*—amateurs of work, whose best of life would be lost without the daily task. In addition to Stewart there is Moses Taylor, who is nearly of the same age. He is President of the City Bank, and is worth \$5,000,000, but his application to business is of an unremitting character. Commodore Vanderbilt, at eighty, may be found daily at his office, next to his residence in Fourth street, a quiet and retired spot well suited to an calculator. The front room is occupied by a clerk and in the rear office the Commodore receives special visitors and goes through his daily duty. His library of railway reports is well read, and he has books of calculation upon transportation and all the minutiae of his realm, which are thoroughly studied. If he omitted this he would soon sink into dotage. Wm. B. Astor, who is more than eighty, visits the Land Office every day, and keeps a clear view of his immense estate, although its principal care is in the hands of his son, John Jacob Astor. George Law and Daniel Drew are now seventy-six, and yet attend to their usual engagements. Peter Cooper is eighty-one, and yet calls himself a business man, and has a private office in the institution which he founded, where he carries on his daily routine. Edward Mathews, at seventy-five, is eager for tenants to occupy his suites of offices near Wall street. Charles O'Connor, at seventy-eight, is still in legal practice, though he objects to going before a jury. These men work in obedience to that law of nature which makes industry essential to the greatest amount of happiness. All New York's millionaires (except a few who inherited wealth) are over sixty.

Want of Thought.

The following incident, related by the *Patron of Husbandry*, of Columbus, Miss., has also a most especial application in California: Traveling in the country, we saw an old negro tugging a basket of peaches up a long, steep hill to throw to his pigs, which were just outside the fence. Seeing that there were nothing but fruit trees in the orchard, we asked: "Old man, why don't you turn your pigs into the orchard and let them get the peaches for themselves?" The old man scratched his head a moment and answered: "Thankee, marster, I neber once thought ob dat. I'll try 'em, shuah." Would it not be better for the West to start factories and thus bring consumers to the corn, than to send their corn thousands of miles to the consumers?

With money at three or four per cent. interest, the Western and Southern States would be dotted all over with humming factories besides the flourishing farms, and what is more, our American manufacturers, because of their superior skill and enterprise, could successfully enter, if not absolutely control, the markets of the world. We have every element of wealth, but we lack cheap money capital to develop this wealth. This we can never have upon a gold basis.

WHENEVER man pays reverence to a woman, whenever man finds a woman purifying, chastening, abashing, strengthening him against temptation, shielding him from evil, ministering to his self-respect, medicining his weariness, peopling his solitude, winning him from sordid prizes, enlivening his monotonous days with mirth, or fancy, or wit, flashing heaven upon his earth and hallowing it for a spiritual fertility, there is the element of true marriage. Whenever woman pays reverence to man, rejoicing in his strength, and feeling it to be God's agent, confirming her purpose and crowning her power; whenever he reveals himself to her, just, inflexible, yet tolerant, merciful, tender and true; his feet on the earth, his head among the stars, helping her to hold her soul steadfast to the right, this is the essence of marriage. There is neither dependence or independence, but interdependence. Years cannot weaken its bonds, distance cannot sunder them, it is a love which vanquishes the grave and transfigures death itself into life.—*Gail Hamilton*.

THE PRINTER'S "DEVIL."—One of the editors of a New Orleans paper, soon after beginning to learn the printing business, when he was technically a printer's "devil," went to court a preacher's daughter. The next time he attended the meeting he was taken down by hearing the minister announce as his text: "My daughter is grievously tormented with a devil."

PREACHING.—A clergyman, being applied to in less than a year after his appointment to put a stove in the church, asked how long his predecessor had been there, and when answered "twelve years," he said: "Well, you never had a fire in the church during his time." "No, sir," replied the applicant, "but we had fire in the pulpit then."

A NEAT TRICK.—At last here is a new fancy in the prestidigitation line. He borrowed a bonnet from a lady in the audience, and as he went to return it it caught fire in the gas, and he had to stamp on it with both feet to extinguish the flame. Misery of the lady! It was her best bonnet! Then he fired a pistol, and a bonnet just like it fell from the chandelier in the middle of the theater.

Execution of a Boy Ten Years Old.

The coming execution of the boy Pomeroy, now under sentence of death and soon to be hanged in Boston, calls forcibly to mind a similar occurrence which occurred in Alexandria, in the State of Louisiana, some ten or twelve years ago. We had put the scrap away among our clippings of horrible things, and now bring it out as another reminder of the fact that history is continually repeating itself in the smaller as well as the larger affairs of life. The item was originally published, we believe, in a New Orleans paper. Here it is:

The execution of the boy Frank, for the murder of Rev. J. J. Weems, took place on Friday, the 24th. It is strange to say that the majority of the citizens of Alexandria, and in fact the citizens all around, were anxious to see him executed; and on the fatal day when it came to pass, there were not a dozen people there. Some rode forty miles to witness this drama, but he was executed and buried by the time they came to Alexandria. On the day before he was called to face death, some gentlemen visited him and propounded questions to him, but his answers were and could be no other than childish. He was, I believe, only ten years old. The gentlemen told him the sheriff was to hang him on the next morning—and asked him what he thought of it, and whether he had made his peace with his God, and why he did not pray. His answer was—"I have been hung many a time!" He was, at the time, amusing himself with some marbles he had in his cell. He was playing all the time in jail, never once thinking that death was to claim him as his victim. To show how a child's mind ranges when about to die, I will mention that, when upon the scaffold, he begged to be permitted to pray—which was granted—and then he commenced to cry. Oh, what a horrible sight it was!

A Handle to His Hat.

There are no doubt some of our readers, of advanced age, who resided in the State of Connecticut during their younger years, when all well behaved children were expected to take off their hats and salute the parson on the highway with a respectful bow. The writer well remembers the custom, and with many others can heartily appreciate the following: Dr. Belamy was riding over one day on horseback, from Bethlehem to the neighboring town of Washington, both in Litchfield county, Connecticut. As he came to the centre of Washington he passed a boy, who gazed at him in silence. The doctor, after riding by, stopped and said, "My boy, you go home and tell your father that you want a handle to your hat." The boy ran home innocently and delivered the message. "Ah!" said the father, "I understand what the difficulty is; you did not make a bow to him. Now, the next time he passes you be sure and make a handsome bow." The boy watched his opportunity, and whether the same day or at some later time we do not know, but when he saw the doctor coming again on horseback, he mounted a stone wall, and took off his hat with such a flourish and such a decided inclination of the body, that he frightened the doctor's horse, so that he shied suddenly, and well nigh threw him off. The doctor rode on to the minister's. "Well," said he, "this is the last time I shall attempt to meddle with the morals or manners of Washington boys;" and he then told the story.

SORROWING HOUSEHOLDS.—Not a hearthstone shall you find on which some shadow has not fallen, or is about to fall. Further than this, you will probably find that there are but few households which do not cherish some sorrow not known to the world; who have not some trial which is their peculiar messenger, and which they do not talk about, except among themselves; some hope that has been blasted; some expectation dashed down; some wrong, real or supposed, which some member of the household has suffered; trembling anxieties lest the other members will not succeed; trials from the peculiar temperament of somebody in the house, or some environment that touches it sharply from without; some thorn in the flesh; some physical disability that cripples our energies when we want to use them the most; some spot in the house where death has left his track, or painful listenings to hear his stealthy footsteps coming on.—*Dr. Sears.*

A MOTHERLY WOMAN, writing in the *Christian Monitor*, declares that she fully agrees with any thoughtful woman who spares her boys the humiliation of wearing great round or angular patches, when her own skill and a generous supply of pieces make the pants look almost as well as new ones. She suggests that when pants need repairing over the knees, it is a good way to rip the seams each side of the worn part, cut it out, and insert a new piece, pressing it nicely before closing the seams again. Neither boy nor man need be ashamed to wear garments neatly patched, if it be necessary; and every girl should be taught that mending well is an essential part of domestic economy.

CHILDREN look little beyond the present moment. If a thing pleases they are apt to seek it; if it displeases they are prone to avoid it. If home is the place where faces are sour and words harsh, and fault-finding is ever in the ascendant, they will spend as many hours as possible elsewhere.



An Uncivil Aspect of Civil Rights.

Young Folks' Column.

The Little Grocer Who Failed.

The following, though intended for the young folks, will also convey a very useful lesson to children of a larger growth:

"Mamma," cried Freddy, "I will play grocery store."

After a great deal of counting, Freddy found that he had seven pennies.

"Not much capital," said sister Nellie—she was grown up.

"What's capital?" asked Freddy.

"The money you have to buy your goods with—that is your capital."

Freddy bought tea, coffee, white sugar, beans, salt, pepper, flour, meal, candy, nuts, soap, dried apples, crackers and starch. But all these cost fifteen cents, and Freddy had only seven cents.

Freddy arranged his store and put out his sign; and just then all the older brothers and sisters came home from school, so that Freddy had plenty of customers, and his goods went off very fast, and he thought grocery store a splendid play. Lucy said she would take all the dried apples if he would write it down in his book for her, because she had forgotten her money.

When the little grocer had sold all his goods, Nellie reminded him that he owed eight cents.

"Why! they didn't pay for the things," said Freddy.

"You know I asked you to put the dried apples down in your book," said Lucy.

"Yes," said Freddy, "but I didn't have a book, and I forgot it, besides; but you might bring back the apples, Lucy."

"Oh, no! I can't! I've eaten them," said Lucy.

Then Freddy found that the candy and nuts were eaten up, and that those who had bought them had no money to pay for them.

"Well," said Freddy, "it's of no use, I can't pay that eight cents, for I've only four."

"Why, then, our little grocer has failed," said Nellie.

"Failed?" said Freddy. "That means that I can't pay it?"

"Yes, that's it," said Nellie.

"That is because I did not think about the pay when I sold them," said Freddy.

When you are grown up a man, and have a real store, remember these things. Don't buy more than you can pay for. Don't sell other people more than they can pay for. Always think what you are doing.

"Wait 'Till You Shave."

I once told a little boy, about three years old, that I was going out to a new part of the country, and after telling him what fine times we could have felling trees and burning brush, I asked him if he would go along. Much pleased, he answered "yes." To try his pluck, I then told him that if the wolves and bears did come around, they would not be likely to hurt us while we were by the fires. He listened soberly to what I had to say about bears and wolves; and when I asked him the second time whether he would go, he replied with gravity mixed with a smirk of mischief: "I will wait 'till I shave first."

This was not only a cute answer, but it contains a good idea. Some boys wish to roam in the city or neighborhood, whether their parents know it or not. They are likely to run into danger, or fall into bad habits. They had better "wait 'till they shave."

Some boys scoff at the advice of their parents and friends, and wish to do as they please. Such we find everywhere. They do not know everything, and had better "wait 'till they shave."

Some boys talk big on important matters, and perhaps censure some one, or dispute with some older persons. It would do them much good to "wait 'till they shave."

About chewing and smoking tobacco, trading, "taking airs" and a great many other things, boys had better "wait 'till they shave." Do not you think so, my little brother?—*Exchange.*

A LITTLE girl, who was asked by her mother about suspicious little bites in the sides of a dozen choice apples, answered, "Perhaps, mamma, they have been frost-bitten, it was so cold last night."

GOOD HEALTH.

Worth Knowing, if True.

Among the many sanitary virtues which have been ascribed to the eucalyptus or Anstralian gum tree, we have now the assertion that it is especially valuable for rheumatism, a disease which has heretofore baffled medical science. Instances are given in proof of the assertion, and among others the two following by the *Petaluma Argus*. It appears a gentleman named John Quinlan had tried most of the approved remedies to mitigate the pain of this affliction, without avail. He visited the West India islands and many other regions for relief, but did not obtain it. Coming to Petaluma, one of our hotel keepers, with whom Mr. Quinlan was acquainted, noticed among his guests a man who had his arms and legs bound up with leaves. Upon questioning the party he learned that he was afflicted with rheumatism, and that he had bound the diseased parts with the leaves of the eucalyptus tree, from which he had experienced great relief and apparently almost a permanent cure in a few days. This intelligence was communicated to Mr. Quinlan, who immediately tried the experiment, with the most gratifying results. He procured a quantity of rank green eucalyptus leaves and heating each one slightly, bound them upon the parts in which he felt the most pain. The effect was marvellous; the pain ceased in a short time, and in a little while the long suffering patient felt like a new man. He continued to apply the leaves and to wear them while walking about the streets, and at the end of two weeks felt entirely well. He says no amount of money would purchase from him the power of applying this remedy, should he be attacked again.

The *Call*, of this city, a few days after publishing the above, gave its readers the following additional confirmation: Since our article of Tuesday, attesting to the virtues of eucalyptus leaves in the cure of rheumatism several persons have since called at our office—among the number a clergyman—to corroborate the statement. They report that they have seen the leaves applied to the affected parts of several sufferers from this painful disease, in each of which the relief afforded was almost immediate, with the prospect of being permanent.

This remedy has the merit of being inexpensive. Persons afflicted with the rheumatism may give it a trial. If it will do for others what Mr. Quinlan says it has done for him, a discovery is made for which tens of thousands of suffering people will feel thankful.

Delicate People.

There is a constant sympathy expressed by robust people for those of slight physical constitutions. We think the sympathy ought to turn in the opposite direction. It is the delicate people who escape the most fearful disorders, and in three cases out of four live the longest. Those of gigantic stature are almost always reckless of health.

They say, "Nothing hurts me," and so they stand in drafts, and go into the night air to cool off, and eat crabs at midnight, and doff their flannels in April, and get their feet wet. But delicate people are shy of peril. They know that disease has been fishing for them for twenty years, and they keep away from the hook. No trout can be caught if he sees the shadow of the sportsman on the brook. These people whom everybody expects to die, live on most tenaciously. We know of a young lady who evidently married a wealthy man of eighty-five years on the ground that he was very delicate, and with reference to her one-third. But the aged invalid is so careful of his health, and the young wife so careless of hers, that it is now uncertain whether she will inherit his storehouses, or he will inherit her wedding rings. Health and longevity depend more upon caution and intelligent management of one's self than upon original physical outfit.—*Exchange.*

HYGIENIC BOOT SOLES.—Is there any method of making the bottoms of boots so moisture will not pass through them? This is a practical question—several methods have been tried. One is to have a cork layer between the inner and outer sole; but this thickens the boot bottom too much. Another is to cover the bottom of the boot with rubber; but the rubber soles are apt to come off, as they have to be cemented on. Still another way is to have a rubber sole with a leather margin pegged on, and this we think has proved more or less satisfactory; but it is difficult to introduce it. What is needed is that common leather should be so prepared as to be impervious to water. It can be done—who of our hygienists will do it?

A HEAVY DOSE OF MERCURY.—A few days ago, says the *Gilroy Advocate*, of April 3, Mrs. Anna Babb's little boy drank a pound of quicksilver. The child is less than three years old, and even in California is considered rather young to indulge in so strong a beverage. He found the mercury bottle in some rubbish in an old trunk, while playing, and drank the whole, leaving but a few drops. The physician was sent for, who administered some light remedy. The child gave no other indication of having taken the mercury than drowsiness. The metal did not all leave the stomach for ten days, but he was about all the time, and is now bright as ever.

DOMESTIC ECONOMY.

Cooking For Invalids.

Following are some excellent hints, taken from *Arthur's Magazine*, in reference to cooking for invalids:

Let all the kitchen utensils used in the preparation of invalids' cookery be delicately and scrupulously clean; if this is not the case a disagreeable flavor may be imparted to the preparation, which flavor may disgust and prevent the patient from partaking of the refreshment when brought to him or her.

For invalids, never make a large quantity of one thing, as they seldom require much at a time, and it is desirable that variety be provided them.

Always have something in readiness; a little beef tea, nicely made and nicely skimmed, a few spoonfuls of jelly, etc., that it may be administered as soon almost as the invalid wishes for it. If obliged to wait a long time, the patient loses the desire to eat, and often turns against the food when brought to him or her.

In sending dishes or preparations up to invalids, let everything look as tempting as possible. Have a clean tray cloth laid smoothly over the tray; let the spoons, tumblers, cups and saucers, etc., be very clean and bright. Gruel served in a tumbler is more appetizing than when served in a basin or cup and saucer.

If the patient be allowed to eat vegetables, never send them up under-cooked, or half raw; and let a small quantity only be temptingly arranged on a dish. This rule will apply to every preparation, as an invalid is much more likely to enjoy his food if small delicate pieces are served to him.

A mutton chop, nicely cut, trimmed and broiled to a turn, is a dish to be recommended for invalids; but it must not be served with all the fat at the end, nor must it be too thickly cut. Let it be cooked over a fire free from smoke, and sent up with the gravy in it, between two very hot plates. Nothing is more disagreeable to an invalid than smoked food.

To Weave Hair.

A writer in *The Household* gives some very plain directions how to weave hair: Take a smooth board one and a half feet long and six or eight inches wide. Near one end drive three shingle nails in a row, the nails being half an inch apart and the row running parallel with the end of the board. At the other end, opposite the middle nail, drive one nail; wax three pieces of linen thread, tie them together at one end, and about a quarter of an inch from this knot tie another. Now slip it over the nail that stands alone, then tie one to each of the three nails, drawing the thread considerably tight.

Take the board on your lap, with the three nails toward the right hand. Next take a bunch of hair, both the ends evened, the size of a knitting needle, wet that end and put it under the thread nearest you, over the middle thread and under the last, then bring it back on the left side, reversing the order. Now push it close up against the knot. Proceed in this way until the strip is of the required length. After it is dry it can be pushed together more closely. Twist is superior to linen for durability.

GOOD PIE CRUST.—Many persons have difficulty in making pie crust, often finding it heavy and dark. A lady writer in the *Vermont Journal* gives directions how to avoid this: To one quart of flour thoroughly mix one small teaspoonful cream tartar, one teaspoon of lard, (less will do,) lightly rubbed in the flour, one teaspoon salt, half teaspoon soda dissolved in very cold water. Mix lightly with a knife, pouring in a little of the water at a time. Do not wet all the flour, and do not knead it. If you want the top crust to resemble puff pie crust, roll out some of your dough and spread on lard, sprinkle on flour, then roll up. Now, do not do as I used to, cut off a piece and turn the edges up and roll out. I have learned a better way. Roll with your rolling pin a piece large enough for your top crust, just as it lies rolled up on your board. Wet the bottom crust around the edge with cold water before putting on the top crust. Do not pinch the edges of the top crust down. Bake or prick, to let the air out while cooking. Cut in a quick oven and you will have a nice looking pie.

DRESSED MUTTON.—To have it as it should be, the dish must be lined with mashed potatoes, the mutton nicely minced and properly seasoned, placed in the dish, a little stock added, and then covered over with mashed potatoes roughed with a fork, and placed before the fire till the little dish assumes the appearance of a nicely-browned baked hedgehog. The hotter served, the better relished, provided it has only been allowed to simmer and not to boil.

DOUGHNUTS.—Boil one quart of new milk and melt in it half a pound of butter. Beat three eggs with two pounds sugar, and add the boiling milk, stirring all the time. When nearly cold stir in a teaspoon of yeast, a teaspoon of salt, and flour to make stiff batter. When quite light knead in flour to make a soft dough. Let it rise again till very light, roll, cut in strips, and fry in hot lard.



PUBLISHED BY
DEWEY & CO.
A. T. DEWEY. W. B. EWER. G. H. STRONG. J. L. BOONE
PRINCIPAL EDITOR.....W. B. EWER, A. M.

Office, No. 224 Sansome street, Southeast corner of California street, where friends and patrons are invited to our Scientific Press, Patent Agency, Engraving and Printing establishment.

Subscriptions payable in advance—For one year, \$4; six months, \$2.25; three months, \$1.25. Remittances by registered letters or P. O. orders at our risk.
ADVERTISING RATES.—1 week. 1 month. 3 months. 1 year
Per line.....25 .80 \$2.00 \$5.00
One-half inch.....\$1.00 \$3.00 \$7.50 24.00
One inch.....2.00 5.00 14.00 40.00

Large advertisements at favorable rates. Special or reading notices, legal advertisements, notices appearing in extraordinary type or in particular parts of the paper, inserted at special rates.

No Quack Advertisements inserted in these columns.

GET UP CLUBS FOR THE RURAL PRESS.

OLD SUBSCRIBERS and other reliable persons are authorized to get up clubs of five or more subscribers for this paper at \$3 per annum for each name. Our terms for all subscribers are cash in advance. Postage will be prepaid by us after January 1st, 1874. The papers will be addressed singly to each individual. Regular subscription price \$4. Sample copies free. Let those who will work for the Rural Press in mind that they will confer a lasting benefit on new subscribers, besides improving their own talents by business practice. Try your hand and report at once. We offer all a chance. You do not know what can be done till you try!

SAN FRANCISCO:

Saturday, May 1, 1875.

TABLE OF CONTENTS.

GENERAL EDITORIALS.—Haying Machinery, 281. The Caterpillar Scourge; Improvements in Box Making; Book Notice, 288. Late Summer Apple, 297. Openings for Immigrants; Answer to an Illinois School Teacher; The Coffee Blight on the Sandwich Islands; Don't Violate the Postal Law; 300.

ILLUSTRATIONS.—Haying Machinery, 281. Natives Fishing for Electric Eels, 289. Lane & Bodley's Portable Farm Engine, with Spark Arrester; Portable Farm Engine, with Wood Saw Attached; Spark Arrester, 292. Duchess of Oldenburg, 297. **CORRESPONDENCE.**—From Los Nietos; Notes from San Jose, 282.

THE SWINE YARD.—Feeding Swine in Summer; Salt for Hogs; Pigs, 282.

THE VINEYARD.—The Scuppernong Grape; Grafting and the Phylloxera, 283.

STOCK BREEDERS.—Durham or Short-horn Cattle; Fine Stock Arrived, 283.

POULTRY YARD.—Fattening Chickens; Poultry Profits, 283.

SHEEP AND WOOL.—The Eastern Wool Market; Sheep Gnawing their Wool, 283.

PATRONS OF HUSBANDRY.—Progress of the Patrons in California; New Granges; Meetings; Etc., 284.

HORTICULTURE.—American Pomological Society; The Paw-Paw, 284.

AGRICULTURAL NOTES from various counties in California, 285.

HOME CIRCLE.—My Mother's Hands (Poetry); The Art of Thinking and the Habit of Observation; Eschewed Estates; Keep to One Thing; The Spelling Mania; Long Words; Macaulay's Tribute to the Mother; The Oppressed Sex; Politeness at Home; A Boy's Letter; Active Old Men; Want of Thought; The Printer's "Devil"; Preaching; A Neat Trick, 286. Execution of a Boy Ten Years Old; A Handle to His Hat; Sorrowing Households, 287.

YOUNG FOLKS' COLUMN.—The Little Grocer who Failed; "Wait Till you Shave," 287.

GOOD HEALTH.—Worth Knowing, if True; Delicate People; Hygienic Boot Soles; A Heavy Dose of Mercury, 287.

DOMESTIC ECONOMY.—Cooking for Invalids; To Weave Hair; Good Pie Crust; Dressed Mutton; Doughnuts, 287.

POPULAR LECTURES.—Economy of the Vegetable Kingdom, 288-297.

MISCELLANEOUS.—Irrigation on the West Side; Popular Trees and Lightning Conductors; The Flight of Birds; Bending Heavy Iron; A Valuable Invention; Ventilation, 282. Color of the Chameleon; A Dog with the Measles, 283. The Electric Eel; Jute in California and Louisiana; Profits of Orange Culture; Irrigation, 289-90. Durable Soap Bubbles; Sheet Metal Statuary; Simple Test for Lubricating Oils; The Surety of a Peach Crop Belonging to Any Locality; Good Harness Blacking; Polishing Paste; The Sand Bisset; Patent Thieving to be Stopped; The Jews at the Centennial; Water and Ice; A Phenomenon at Yosemite, 290. Down with High Living! A Home for All; What Constitutes a Perfect Home; Learning Trades; A Noble Man; To Distinguish Young from Old Fowls; Game and Fish; Cotton in California; Railroads, 291. The Lane & Bodley Portable Farm Engine; The Locomotive, 292. Grange Directory; Grange Nursery Rhymes; Grangers and their Cash, 293.

OUR DOUBLE SHEET AGAIN—WHAT IT CONTAINS.—The Lecture on Our Timber Trees—one of Prof. Bessey's best; an able article on Irrigation, by Dr. Rycr; Editorials covering prominent agricultural topics, with other matter strictly fresh and original. Then among our reprint matter we give gleanings of agricultural news, several special departments, carefully compiled with a view to meet the special needs of the farmers of the Pacific coast; our "Home Circle," with its usual amount of useful and entertaining reading; all of this, and much more besides, making a paper which we are proud to lay before our subscribers, and ask them to show it to their neighbors and send copies to distant friends, as samples of "the leading agricultural paper of the Pacific coast."

The Caterpillar Scourge.

Marin, Alameda and Contra Costa counties are seriously afflicted with the presence of caterpillars, and other parts of the country have more than a sufficiency of them. They are the regular Eastern caterpillar; the same in appearance and habits. This is by no means their first season in California, but they are evidently increasing very steadily, and are extending their field of operations. In foraging their first choice is the fruit trees, the leaves of which they feed on, and generally strip them pretty thoroughly before departing. Trees having tough, leathery leaves escape their ravages. Almond trees are quite liable to attacks from them. When they have stripped these and various other fruit trees they go for the oaks. In some localities the oak trees are left entirely bare of leaves. They are also found on some of our choice ornamental shrubs. It is the foliage and not the fruit that they are after, but when the leaves of the trees are consumed of course the fruit is doomed.

Some of our best horticulturists are now engaged in a lively campaign against these caterpillars. Messrs. Sweetzer & De Long, of Novato, Marin county, have had twenty men employed upon their fruit ranch, destroying these pests. They depend principally upon crushing them with the hand. We have heard of other parties who attach stiff brushes—scrubbing brushes for instance—to the ends of long sticks, and with these they reach to the infested spots, and like bootblacks, commence working with their brushes and thus crush the worms. They find that caterpillar nature, like human nature, is just about the same in California as elsewhere; and that they, the caterpillars, are found in their nests or in migrating hordes in the early morning, and go for them accordingly at this time.

Some have resorted to burning these nests and swarms with kerosene; but finding this was about as hard upon the trees as upon the caterpillars, they soon abandoned the practice. We have fought caterpillars long enough at the East to know that we have got to treat this matter as a personal quarrel, and kill them individually. But as they only reach their destination by crawling, something may be done to intercept their course. In the first place the branches of the trees should not be allowed to interlock. If the branches come together the caterpillar will, of course, go from the top of one tree to that of another, instead of crawling up and down the trunks. Nor is it sufficient that the branches do not really interlock, for though the ends may be several feet apart, the hanging threads of the web may be blown from one tree to another, and, lodging there, furnish a thoroughfare for the destructive army.

When all intercourse except by the trunk is cut off, then something may be done toward preventing their ascent. A ring of pitch made around the trunk with a brush or swab will, for a few days, deter them; but it will soon dry up, and thus need replacing; and we have known instances when the caterpillars would pass it even while it remained sticky; for in the attempt to crawl through it so many would become stuck fast that the pitch would become entirely covered with them, and the rear army would thus be enabled to pass over their imprisoned comrades undefiled by the pitch; but by close watching and frequent retouching with pitch, much can be done in the way of prevention, and that, too, with a moderate amount of labor.

We must not expect that, like the locust, the grain pests, and the potato beetle, the caterpillar's visit is transitory. Wherever they go they become permanent settlers. Still, there is nothing alarming in this prospect, for we know by experience that these pests can be kept in subjection. In the first place, people must watch the condition of their trees and shrubs more closely, and commence war upon the pests before they become strong in numbers. The crushing processes described above are, no doubt, effective; but we prefer the scap treatment: Take a bucket of strong soapuds, and a pole with a coarse sponge or swab of cloth attached to the end. Visit every tree, and when a nest or cluster of caterpillars is found, give them a good sopping with the suds. Make these visits in the morning, before they leave their nests or separate in their search for food. Remember that the early fruit grower, like the early bird, catches the worm. We cannot expect to keep our trees free from caterpillars any more than we can hope to keep our gardens free from weeds; but we know that we can keep both in subjection.

As this is a matter of considerable importance, even at present, and may possibly become still more so, we are desirous of obtaining all available information in regard to it, and would especially request that our correspondents send us such facts and suggestions in regard to their extermination as they may deem useful.

THE BEST HONEY we have tasted in this State was made from chemical blossoms in Murphy's canon near Gilroy. We now have it one year old from Chas. Sanders' apiary. It is perfectly transparent and not in the least candied. We regret to learn that the late frosts in our Southern counties is likely to seriously reduce the yield this season.

How are Crops?

This question is always in order, and our answer to it this week corresponds, in the main, with that given in our last issue. There is, however, a slight variation in favor of fruit. The present indications are that, although some growers have suffered severely, the market will not suffer for want of fruit.

If there has been any change in the wheat prospect, it is of an adverse character, though many close observers declare that the latest reports, in the aggregate, will compare favorably with last week. A gentleman just returned from a tour of observation in connection with the wheat crop reports the following local estimates: On Sherman island, better than average; Livermore valley, fair crop; lower part of Santa Clara valley, bad; Watsonville, average crop; San Joaquin, some parts, only half a crop.

Reports from the northern counties give quite a favorable view of the condition of the wheat crop, and state that barley never looked better.

Accounts of the grass crop are of a discouraging character, presenting a strong contrast to those in early spring. Stock owners and dairymen say that the growth commenced too early. A dairyman from Jenny Lind, Calaveras county, informs us that feed is failing in that vicinity and that hay must necessarily reach pretty high prices.

But there is one crop, an important one, too, that is of unprecedented abundance. We allude to the crop of lambs. From the commencement of the lambing season up to the present time, reports have invariably been extremely favorable in regard to sheep, especially the increase. One sheep owner informs us that the average increase expected in his district is from eighty to eighty-five per cent., but in his flock the present season, it has been over 100 per cent.

The Interruption of Railroad Travel.

If the Rural Press was dependent on its Eastern exchange list for the matter to fill its columns the editor would be compelled in this issue to apologize for want of "original" matter. The interruption to railroad travel caused by the washing away of many miles of the track of the Union Pacific road not only kept back the mails but detained several thousand passengers and a large quantity of freight. The trouble occurred east of Green river. The road-bed at this point is but an elevation of the loose soil of the alkali desert, which, as it became saturated with the heavy rains and freshets from the mountains, turned to mud, and, as it were, melted away. Although the bridges are mostly intact, many of the culverts were washed out, and a great deal of labor and expense will be necessary to put the road in condition again.

The vanguard of the detained travelers arrived here on Sunday, the 25th inst., and they have been pouring in ever since. There are, we understand, over 2,000 westward bound freight cars lying upon the side tracks east of Green river. Those started from Omaha last will be the first to come through, so that our merchants will be put to some inconvenience on account of the detention of expected goods.

The company is making strenuous efforts to get the track in shape again, and it is probable that the late ten days' embargo may be productive of good in causing them to put the road in better and more durable condition.

RETURNED HOME.—We received a call this week from Professor Wm. H. Brewer, of Yale College. He has been here for some weeks past delivering a course of lectures at the University of California. Professor Brewer was formerly connected with the State Geological Survey of California, and he is well known among us. He expresses great satisfaction at the progress made since he left here some nine years ago, and hopes the Pacific coast will continue to advance in material wealth and prosperity. Professor Brewer left for his home in the East on Wednesday morning last.

COFFEE SEED.—A subscriber at Santa Rosa asks, "can any coffee seed be procured that is reliable?" We have made proper inquiries in this matter, and learn that R. J. Trumbull, of this city, has coffee seed procured expressly for planting. The price is \$5 per pound, or 50 cents per ounce. He also informs us that he has some of these seeds sprouted, which will be ready for transplanting the coming fall. We learn from Mr. T. that other parties, amateur horticulturists, have coffee seed sprouted. It is gratifying to note these indications of a growing interest in this subject.

ON FILE.—"Curb and Colic in Horses," H.; "The Coming Man," E. E. A.; "Letter from St. Helena," T. M.; "Strawberry Culture in Santa Rosa Valley," G. W. M.; "Concerning the Sufferers of Kansas and Nebraska," L. B. (may be expected next week); "Crops and Stock in Sacramento County," B.; "From Merced County," J. L. H.; "Poultry Notes," J. W. R.

DECLINED.—The following contributions to the Rural Press are respectfully declined: "Father's Coming," by T. W.; "Acrotic," no name; "Spring," H. S.; "Improved Farming," J. T.

POPULAR LECTURES.

Economy of the Vegetable Kingdom.

Thirtieth Lecture delivered before the University of California College of Agriculture, on Friday, February 6th, by PROF. C. E. BESSEY.
[Reported for the Rural Press.]

Our Timber Trees.

To the student, as well as to the practical man, the timber producing trees of the Pacific slope furnish a topic of great interest. A well grown tree is a grand object, interesting to every one, from the dreamer who only asks of it that it throw its shade over him, to the lumberman who asks it to yield him the boards, planks, joists and shingles so snugly packed away within its shaggy bark; doubly interesting to the lover of nature, who studies its forms and dwells upon its beauty as if it were an animate thing, who loves it as a fellow creature, and who mourns as for a friend when some ruthless hand fells it. Wonderful machines trees are, pumping up day after day tons of water, which they allow to steam through the millions of breathing pores in their leaves; sending their roots down into the darkness of the earth among the rocks and roots, and bringing up from thence the materials with which they build tall shafts which out-top all other living things. They are nature's master-pieces. Go and stand beside the gigantic *Sequoias* of the Calaveras or Mariposa groves, the *Auracarias* of Norfolk island, or the monstrous gum trees of Australia, and you are with the largest living things on earth.

What thing of life can claim even half the antiquity of some of the trees now growing? Our largest redwoods were seedlings one thousand years ago. Run back if you can over all the changes our English speaking race has seen during the time these redwoods were growing.

Thirty one centuries ago the Big Trees of California burst their seed coats and began their long reaching toward the skies, began adding cell to cell for the construction of spires which should withstand the storms of more than three thousand years. Thirty-one hundred years ago,

Twelve Centuries Before Christ,

When the names of which old Homer sung were still fresh in the memories of men. Our people, our civilization, and our religion have risen since these giant trees began existence.

But what shall we say for the great dragon tree which until within a few years was standing upon the island of Teneriffe? Careful estimates placed its age at considerably more than five thousand years. When Moses wrote his account of the world, this dragon tree had been for more than a thousand years braving the storms which swept down upon it from the ocean; when our *Sequoias* were tiny sprouting plants, it had already seen more than twenty centuries; when Rome was in her glory, this ancient tree had passed the meridian of its life. This one living thing spanned with its life the known world; its youth was in the pre-historic past, its old age extended to our present.

Interesting as these inquiries are, I wish, to-night, to call your attention to another view of the matter. Trees, if usable, represent dollars and cents, but if unfit for use, their commercial value is nothing. Now the uses which give value are many; without attempting to enumerate all, they are such as the following: they may furnish food, medicines, timber, gums, balsams, perfumes, spices, dyes, ornaments, etc. But few trees are so poor as not to furnish one or more of these. With us the great demand is that our trees furnish timber. The question of the lecture then, shall be,

What Trees Furnish us with Timber?

A convenient division of timber trees is into "soft wood" and "hard wood" varieties; and under these names timber men and lumber dealers buy and sell the woods found in the market. To the soft wood division belong all the pines, redwoods, firs, spruces, cedars, larches and other cone-bearing trees, as well as the poplars, cottonwoods, lindens, white-wood and a few others. In the hard wood division are found the oaks, beeches, chestnuts, hickories, walnuts, elms, ashes, laurels, cherries, maples, locusts and many others.

Among the soft wooded trees the pines stand as of the greatest importance. There are many species which are abundantly distributed throughout the northern half of the globe, and in every country one or more species seem especially adapted to meet the wants of civilized man.

The Scotch pine, *Pinus sylvestris*, called also the Scotch fir, is a tree found in Europe and Northern Asia. It is a fine tree, growing best in the mountainous districts, where it attains the height of upwards of eighty feet, with a diameter of from four to five feet. Its lumber is known in England under the names

Continued on Page 297.

DOUBLE SHEET.—24 PAGES.

The Electric Eel.

The Electric Eel, *Gymnotus electricus*, is found in the rivers of tropical America. It is in form and shape similar to other species of the *Anquillidae* or eel family, but from its great size, sometimes attaining six feet in length and strength proportionate, and being possessed of internal electrical apparatus as powerful as the strongest artificial battery, it becomes a formidable opponent when encountered by man or animal in its element, the water.

The electric eel abounds in the Orinoco and the Amazon, but the force of the current and the depth of the water prevent their being caught, though the natives often feel shocks from them while bathing in those rivers.

The engraving upon this page is intended to represent a novel method the natives have adopted for securing these amphibious electric batteries. Humboldt, in his "Travels to the Equinoctial Region of America," thus describes this method of "fishing with horses," which gives an excellent idea of the ingenious though cruel method. Being very anxious to obtain specimens of the *gymnotus*, Humboldt says he induced the Indians of the section where he then was to undertake to furnish him with a supply. Having waited near the bank of a small stream the Indians were soon seen returning from the savannah, driving before them a number of wild horses and mules. They brought about thirty of them which they forced to enter the stream. The extraordinary noise caused by the horses' hoofs makes the fish issue from the mud and excites them to the attack. These yellowish and livid eels, resembling large aquatic serpents, swim on the surface of the water and crawl under the bellies of the horses. A contest between animals of such different organizations presents a very striking spectacle. The Indians, provided with harpoons and long slender rods, surround the pool closely, and by their wild cries and the use of their rods they prevent the horses from running away and reaching the bank. The eels, stunned by the noise, defend themselves by the repeated discharge of their electric batteries. For a long interval they seem likely to prove victorious. Several horses sink beneath the violence of their terrible strokes, which they receive from all sides in organs the most essential to life, and, stunned by the force of the shocks, disappear under the water. Others panting, with mane erect and haggard eyes expressing anguish and dismay, raise themselves and endeavor to flee from the storm by which they are overtaken. They are driven back by the Indians into the middle of the water; but a small number succeed in eluding the active vigilance of the fishermen. These regain the shore stumbling at every step, and stretch themselves on the sand, exhausted with fatigue and with limbs benumbed by the electric shocks of the *gymnoti*. In less than five minutes two of the horses are drowned. The eel, being five feet long and pressing itself against the belly of the horse, makes a discharge along the whole extent of its electric organ. It attacks at once the heart, the intestines, and the coeliac fold of the abdominal nerve. It is natural that the effect felt by the nerves should be more powerful than that produced upon man by the touch at only one of the extremities.

The *gymnoti* require a long rest and abundant nourishment to recover the galvanic force which they have lost. The horses remaining in the water appear to be less frightened, and gradually the *gymnoti* timidly approach, the edge of the water, where they are taken by means of small harpoons attached to cords. The Indians felt no shocks in pulling them from the water, as the cords were very dry. The eels thus taken were but slightly wounded.

They are very good eating, and the Indians use them largely for food. In Dutch Guiana they were formerly employed to cure paralytic affections.

One peculiarity noted by naturalists is that the electric action of the fish depends entirely upon its will. The shock, too, can be directed to any point desired, as for instance if two persons touch, one the head, the other the tail, one will feel a shock and the other will not be affected at all.

Among the wonderful appliances furnished by nature, the battery of the electric eel is among the most interesting to the student and naturalist.

A RESIDENT of Grass Valley has dug 1,600 pounds of potatoes from one tenth of an acre of ground.

THE Merced Express urges the planting of chestnut trees in that section.

Jute in California and Louisiana.

In a recent issue of the PRESS, while pointing out the necessity of machinery for reducing ute and other vegetable textiles to a marketable condition, we had occasion to allude to a machine invented by Mr. E. Lefranc, of New Orleans. Louisiana occupies about the same position as California in regard to jute, though with them the want of new agricultural products is, perhaps, more pressing than with us. This, or some other difference in the situation of things, has produced more practical results than we are able to exhibit at the present time.

Mr. Lefranc is one of those who have been busily at work in this matter, the result of his labors being the machine alluded to. We have received from this gentleman, and also from one of our citizens, samples of jute, ramie and other fibers prepared by this machine. These samples have been examined by parties in this city who possess the requisite means and energy to foster this industry in California, and business negotiations are now pending, which, we hope, will result in the introduction of these machines into our State.

In answer to requests for information on this

is sown broadcast in pulverized lands, low or high. No work is needed when the seed is germinated. Planting is done in April and May; harvesting in September. From the field the stalks, while yet green, go right to the decorticating machine, which cleans it about as fast as wheat is cleaned in a threshing machine. The cost of one of these machines is about \$500. The whole cost of cultivating and manipulating jute is about \$25 per acre, and the yield of fiber per acre is about one ton. The product is worth six cents in gold, and the refuse two and one-half cents for bagging stock.

"There is a fact relating to jute which deserves to be specially noted. It bears a bloom which emits a peculiar odor, in the highest degree inimical to insect life, but wholly inoffensive to human life. Planted in distant rows in a cotton field, it drives caterpillars and all insects from the field.

"The peculiar adaptation of this plant to our soil, the certainty that attends its cultivation, and the remuneration it offers, should attract attention. Sugar is to Louisiana an exotic, but jute grows here with the same success and certainty that it does in India. Such of our readers as desire to acquaint themselves thoroughly on the subject, can obtain an exhaustive treatise free of cost, by sending to Hon. F. Watts, Commissioner of the Department of Agriculture at Washington."

ORIGIN OF COTSWOLD SHEEP.—Mr. Smith, a prominent handler of sheep at West-end, En-

Irrigation.

How our Plains may be Irrigated without the Aid of State Credit.

Of all the works demanded from the hands of men who will live hereafter in the State of California, there are none more important than the irrigation of the great valleys of the Sacramento and San Joaquin.

With a soil and climate suitable to the support of millions, and a productive capacity, under favorable circumstances, equal to all other portions of the State, a few thousand inhabitants now are scarcely able to obtain a livelihood, although a very large part of these valleys are under cultivation.

If the withholding of sufficient rain and the coursing of rivers every ten or fifteen miles means anything, it means that the energy of men shall cause these rivers to flow as rivulets over these plains.

It is assumed that all men know of the beauty, fertility and constancy of an irrigated country, and it is not necessary to state that orchards, forests, and an abundance of all kinds of vegetation will follow the spreading of water over the plains. This abundant vegetation, by the well known laws of nature, will cause a more plentiful rainfall, and thus benefit the neighboring land, which cannot be irrigated.

The Control of the Water Sources to rest with the Land-Owners.

There is nothing in political economy more wise, clear and unquestionable than that the State, or the owners of the land using the water, should own and control the water supply.

No body of people should ever be placed in a position subject to the will and caprice of a corporation in connection with anything so essential to their well-being as water. To subject them to this condition is only to entail a system of bondage or serfdom on them and their posterity. Unfortunately for California, many have occupied the legislative halls who could not see the importance of conserving the waters of the State to fertilize the lands. Others, of a worse character, have been bribed to legislate these lands into speculators' hands.

Perhaps there are no duties belonging to the Granger organization greater than the wresting of the waters of the State from the control of men who desire that farmers should pay them tribute forever. Even and exact justice will be

done these men by condemning and confiscating their claims, and the paying to them the actual amount they have paid out and the value of their property at this time; no prospective value to be considered. This amount to be paid by the State, county or irrigating district.

Corporations not Needed to Supply Water.

Many persons believe that these plains will not be irrigated unless the work be done through a corporation or association of capitalists, and that it is therefore a necessity to surrender to them the control of the water supply. This alternative should not be accepted, because of public policy and the greater benefit which will ensue to land-holders by the owning and controlling of the water.

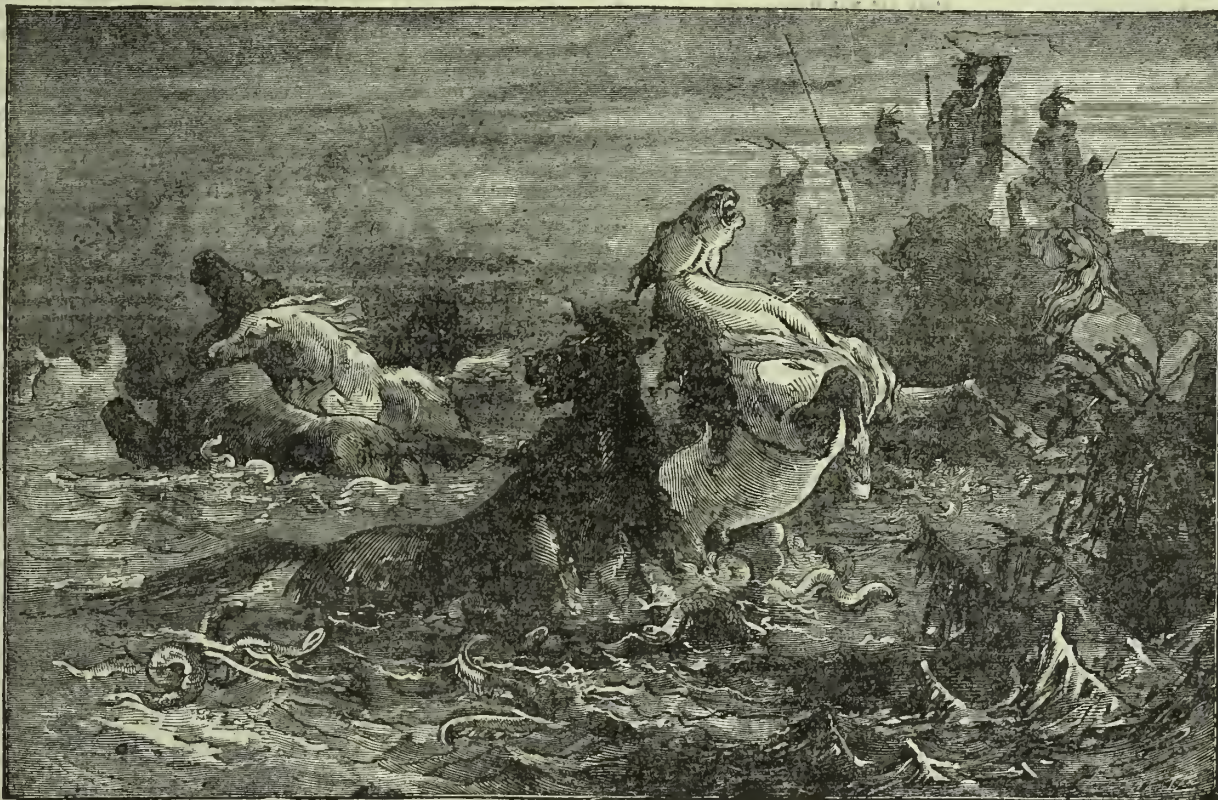
It is true that a large part of the land of these valleys is owned by speculators who bought with a view to selling at a profit, and they will therefore favor the project which gives them the most profit with the least expenditure. This condition of things we cannot alter, and must accept; nevertheless, the future demands that works of irrigation be established, even though large land-holders become enriched, for we must have comfortable homes for the millions who seek to live in California.

The question how to frame a law of association so that the ownership of the water and the land may go together, should be considered by every politician in the State, and no candidate for legislative office should be considered competent until he presents to his constituents the draft of a law covering land and water ownership.

How District Association Reclaims Overflowed Land.

We have found that by association lands may be reclaimed from overflow, why, by the application of similar laws, may not lands be irrigated?

To the question, why has not reclamation been more successful, the answer is, California engineers have tried to exclude water from lands by building levees of turf and spongy soil upon land which floats on a bed of mud and water. The most insane engineer in existence will still retain sense enough to tell you that the first rule of leveeing is to ditch through



NATIVES FISHING FOR ELECTRIC EELS.

subject Mr. Lefranc writes to the RURAL PRESS, under date of March 20, as follows:

"In your edition of March 6th you express the desire of receiving information regarding jute as an American product. I beg leave to hand you the enclosed extract on the subject, from the New Orleans Times, and to assure you personally of the real effectiveness of the decorticating machine, not only on jute, but also on hemp, ramie, pita, and any other long textituous plant. Quality and quantity of the products are obtained beyond any doubt by the present contrivance, which represents the final improvement of previous machines. I am ready to stand any test required on that point by proper parties. Besides the machine we have seed for sale at \$1 per pound.

"The first receipt of American jute was on the 17th—19 bales. There are over 50 yet to come."

As the article from the New Orleans Times, referred to in the above note, embodies facts and suggestions that are strictly applicable to the same interests in California, we reproduce it for the benefit of our readers:

"At the Merchants' Exchange and also at the Cotton Exchange, will be found a small bale of Louisiana jute. It was raised and prepared by the Southern Ramie and Jute Association, whose office is at No. 56 Royal street. The decorticating of the lint is most perfect, and the lint itself is fair in color, fine in texture, and strong. Beyond doubt it is an excellent material to be used in the manufacture of bagging, cordage, and especially of the warp or foundation of carpets. To this latter use it is now largely applied, as well as to the manufacture of coffee bags.

"The association named above have already entered the market with a remunerative crop, shipping their product to New York. Their plantation is in the parish of Plaquemine where they have a machine, invented by Mr. Emile Lefranc, of this city, which decorticates the lint in a satisfactory manner.

"Jute is peculiarly adapted to the soil and climate of Louisiana. Experience thus far demonstrates that it is freer from casualties than any crop our people can raise, and its cultivation is as easy as that of wheat or rice. The seed, of which the plant is most prolific,

land, has this opinion of the origin of this now famous breed: The Cotswold sheep are supposed to derive their name from the cots or sheds, from which they were fed in winter, and from the wolds, or open, hilly grounds, on which they were pastured in summer. I believe them to be the original breed of the long-wool sheep, as they are continually spoken of from the earliest times, when no other sheep have been particularly noticed.

Profits of Orange Culture.

Orange culture in this county should be carried on more extensively. We have the facility; splendid soil, abundant water, superior climate, cheap labor and the finest nurseries in southern California right at our doors. Yes, orange culture holds out golden inducements to the industrious cultivator in San Bernardino. The man who plants in 1874 ten acres in orange trees, and attends to them carefully, may safely count on a net income from them in 1884 of \$10,000 at the lowest figure.—San Bernardino Guardian.

We had the honor of being one of the examining and awarding committee on oranges, figs, etc., at the great fruit show in Boston, a little over a year ago, where the oranges of California came in direct comparison with those raised on the Mississippi sound coast, and the committee were unanimous in the verdict that the Creole oranges were decidedly the best on exhibition, and awarded Bro. Redmond the Wilder silver medal as a premium for this superiority. If, then, California orange culturists can promise themselves annually \$1,000 per acre for ten year old orange orchards, how much better ought the prospect to be for those who plant this fruit in Louisiana, Mississippi and Alabama? For one, we do not consider the California estimate any too large.—Our Home Journal.

Crops in Pleasant valley were not materially affected by the late frosts, says the Vallejo Chronicle.

THE Stanislaus News talks in a most discouraging strain of the crop prospects in that section.

the turf, and then get solid earth from the bottom of the river by dredging machines, or earth containing no vegetation from the nearest practicable place, and to base the levee upon the hard pan or solid earth beneath; for levees, as buildings, require unyielding foundations.

The law of 1868 sets forth that the owners of a majority of the land in any district may associate and then elect trustees. These trustees may employ engineers to make plans and estimate the cost of the work necessary to reclamation. Upon these plans and estimates the Board of Supervisors, if they approve them, direct three commissioners to jointly view the land, and assess upon each and every acre to be reclaimed or benefited thereby, a tax proportionate to the whole expense, and to the benefits which will result from such work; said tax to be collected and paid into the county treasury, and shall be paid out for works of reclamation, upon the order of the Board of Trustees, when approved by the Board of Supervisors. This tax is enforced by the District Attorney of the county in a manner similar to the enforcement of the collection of State and county taxes. With a few amendments the reclamation laws are sufficient to reclaim the lands and keep the control and ownership of the levees within the hands of the owners of the land.

Some of the Legislation Necessary to the Formation of Irrigating Districts.

Two incomplete and inefficient acts were passed upon irrigation at the last session of the Legislature. These acts may be so altered and amended as to render irrigation by association entirely practicable. The legislation needed should cover the following points:

1st. The Surveyor-General of the State should lay off the land of the State with reference to irrigation, and set forth the proper water supply to each district and the place and manner of taking it.

2d. The owners of a majority of land susceptible of irrigation should be enabled to form a district.

3d. Trustees should be elected by the owners of the majority of the land in the district.

4th. Trustees shall apply to the Surveyor-General of the State to designate the water supply proper to the district, and the land outside of the district necessary for canals or other work. As soon as the land and water is thus designated, the trustees shall immediately take possession of the same and hold them as property of the district.

The trustees shall employ an engineer to make plans, surveys and estimates of the works necessary to irrigation.

5th. The Attorney General of the State shall immediately seize, condemn, and appropriate such water and land as the Surveyor General shall designate as necessary to the district, when the owners of such water source or land shall establish in court the amount they have actually expended in works connected with such water supply or land, and the actual value at the time of seizure, without reference to any future or prospective value. Then the trustees of the district, approved by the Board of Supervisors, may order the amount paid out of funds belonging to the district. But no prospective damages to the owners of water or land shall be allowed by the courts or paid by order of the trustees. The appropriation of the water and land should be immediate and irrevocable; the litigation for damages may take place afterwards.

6th. To furnish the money necessary to works of irrigation, there should be commissioners appointed by the Board of Supervisors, or, when in two or more counties, by the joint action of the Supervisors of the counties; these commissioners to assess upon each and every acre a tax proportionate to the whole expense as estimated by the engineers employed by the trustees, and to the benefits, either directly or indirectly, which will result from such works.

7th. These assessments to be collected by the District Attorney of the county in which the land lies, or by some State officer appointed for the purpose, and the amount collected to be immediately paid into the county treasury and there subject to the order of the trustees when appointed by the Supervisors. But no order to be paid except for work actually done or in compliance with the judgment and orders of a court. Warrants drawn by the trustees to draw interest at 10 per cent. per annum until paid.

8th. Assessment to the full amount necessary should be made by the commissioners upon the estimates formed by the engineers employed by the trustees of the district; but the trustees shall call in only installments of this tax large enough to cover the works which must be completed within six months from date of call. All assessments to be a lien upon the land and work its forfeiture unless paid.

9th. All contracts to be let to the lowest bidder for cash, and all contracts to be let in small sections, after due advertisement. Thus giving the poor man an opportunity of paying his assessment by his own labor.

10th. The district thus formed shall own the water forever, and no land not included in the district, and which has not paid for the works of irrigation at the time the works are constructed, shall have the use of this water, except on such terms as the officers of the district may dictate; for the land owner who will not assist in the enterprise should have none of its privileges.

State Credit as an Assistant.

As the irrigation of these plains is of great importance to the State, it would be well to

consider whether the loss of the credit of the State would be proper. If it is proper, then the owners of the land should pay interest in advance, so that the State shall lose nothing by delay; and the failure to pay interest should work an immediate forfeiture of the land in every case. No loss of State credit unless based upon the certain and absolute forfeiture of the land, upon the failure to pay the interest or any part of the principal on the day designated; and for this purpose the owners of each tract should obligate themselves by land when forming the district, or before availing themselves of State credit.

In order to avoid hasty or improper disposition of State bonds, they should be sold by the officers of the State and not be sold for less price than the market value of other State securities. This and the letting of all work to the lowest bids for cash may tend to insure an honest action on the part of trustees.

State Ownership of Canals.

If the State should actually own and build canals for irrigation, canal rings, as in New York, may be formed. And if it is proper to construct them in one place, why not in fifty places? The owners of gravel and placer claims will not understand why the land speculator should have State bonds to assist him, when other great interests of the State require assistance. The tule land owner will equally demand assistance, and thus, when the State begins to issue bonds, who can tell the stopping place?

State Aid Not Necessary.

Few farmers on these plains count their acres by less than hundreds, and speculators count by thousands. If they form districts and prove to the world that they intend to irrigate, their lands will rapidly advance in value, and thus before they have to pay their first assessment they can sell one-half their land for enough to pay for irrigating the other half. Now, as one acre irrigated is worth ten not irrigated, it seems a fair proposition that they should, if necessary, sell a portion to improve the other. State aid, except to assist in the formation of districts and the condemning to their use the waters of the rivers, should not be extended to the owners of the land.

The entangling alliance of State with land sharps will be fruitful of no public good. As almost all have more land than they can properly work after irrigation, let them sell a part to enhance the value of the remainder.

An Appeal to the Legal Fraternity.

Let it be understood by all who read this article that it is written for the purpose of urging men of legislative capacity to frame an effective law upon a most difficult subject, as the above is but a crude and unfinished sketch.

How to wrest from the water grabbers the waters of the State will puzzle many able men, and the legislator who can frame an act to do so should be well appreciated by his fellow-men. It may save much trouble in the Legislature, and enable our law makers to approach the subject with more intelligence if some of the legal minds of the State would publish in the journals of the day the outline or draft of a law applicable to the case, for no hasty legislation can properly encompass the great questions involved.

DR. M. W. RYER.

DURABLE SOAP BUBBLES.—To obtain soap bubbles that will show the changing colors of the rainbow the directions are as follows: Take half a pint of water that has been boiled and become cold, and put into it a quarter of an ounce of Castile soap, cut up fine. Put this in a pint bottle, and set it in hot water in a saucepan on the fire; there let it remain an hour or so, now and then giving it a good shaking till the soap is dissolved. Let the fluid stand quiet for the impurities and coloring matter of the soap to settle; then pour off the fluid and add to it three or four ounces of glycerine, and your soap bubble solution is ready. In an ordinary way you may blow the bubbles easily with a tobacco pipe, but if you wish to attain scientific perfection, you had better employ a glass pipe. By adding a larger quantity of glycerine you may make these bubbles so strong that you can play battledore with them.

SHEET METAL STATUARY.—The manufacture of sheet metal statuary for ornamental and architectural purposes is quite novel, but fast becoming an important branch of industry. Sheet zinc is the material employed, and it is wonderful to notice the skill displayed in this line, and the perfection to which such work has been carried. The new court-house at Jackson, Mich., has recently been ornamented with a full length figure of Justice, seven feet high, made from sheet zinc, which weighs only 100 pounds. The figure is pronounced by experts as very superior, and was the work of the Kittridge Cornice and Ornament Company, of Philadelphia. This company propose to make a specialty of sheet metal statuary.

SIMPLE TEST FOR LUBRICATING OILS.—The following simple method for testing the products of hydrocarbons or mineral oils in lubricating mediums will be found both convenient and useful for every engineer or mechanic: Fill a bottle with the oil in question, moistening the cork and inside of the neck of the bottle, and then twisting the cork about its longer axis. The best lubricating oils produce no sound, but the more the oil is adulterated with hydrocarbons and products of dry distillation, the louder the noise produced. An oil that gives a loud cry is most unfitted for a lubricator.

The Surety of a Peach Crop Belonging to Any Locality.

I have no intention to question the views of writers who tell us that the peach crop never fails at such and such points of latitude and location. Thirty and odd years engaged in closely observing the subject has, I think, taught me that there is no such thing as reliability on the peach or any crop year after year, predicated upon the location of the land. I remember when the peach was grown abundantly and profitably on the sandy soils of north of New Haven, Conn., and so in almost every garden and orchard on light loamy soils of that State. New Jersey and Delaware had repute for surety of the peach crop—"it never failed"—Oh, no! The south shore of Lake Erie in 1843 had never known a failure, nor could there be one, said my advisers to settle among them. And why? "Because the moisture of the lake keeps the temperature so that frost never injures the peach or other fruit-buds. This is the fruit region of the world." And so it was for a series of years. But forests were cleared, currents of air were changed, and the whole climate made harsher and more irregular. The peach and other crops have failed.

I heard much of southern Illinois and Missouri. I visited Alton; found that they did have, as on the south shore of Lake Erie, occasional seasons when not only the crop but the trees were injured. I heard that a place called the Summit, on the Pacific railroad, out of St. Louis, was a surety, and I visited it. Locally it had promise, for the lands were mainly high and dry, alluvially mineral. I talked with many who had been there years; and one party told me that he had been there twenty-five years, came from Bradford, Conn., brought cuttings and seeds with them, and had never failed of obtaining a good crop of all varieties of fruit, including peaches, grapes and cherries. I believed, and yet I had doubts. Two years after my visit not a peach or cherry ripened there.

The last two or three years we have been told that the perfection of peach-growing land is on the east shore of Lake Michigan. I have looked at it calmly and been a half believer in these statements; for certainly Lake Michigan has a greater body of water for softening and tempering the atmosphere than Lake Erie; but she also has a colder western and northern climate, without the aid which she gives to Lake Erie and other isothermal border lines. Recently I read that 24 deg. below zero had been known along more or less of the eastern border of Lake Michigan, recently claimed as the grand perfect fruit region of the United States. Should such prove the fact, then it simply to me proves the fact that as the country is cleared of forest foliage its cold and heat is intensified temporarily to the injury of fruit-culture.

—F. R. E., in Germantown Telegraph.

GOOD HARNESS BLACKING.—A good black for restoring harness and wagon tops is made of one-half ounce of fine glue, one-half ounce of indigo, eight ounces extract of logwood, four ounces of crown soap—common soft soap may be used, but it is not as good as the crown soap—and one quart of pure cider vinegar. The glue must be first soaked in water until it is soft but not dissolved; then mix the whole mass together over a slow fire, stirring until all is thoroughly mixed. In using it, first cleanse the leather with tepid water and crown soap; when the leather is dry apply the black with a soft brush, using a little harder brush for polishing.

POLISHING PASTE.—A very excellent polishing paste for furniture may be made by melting together gently eight parts of white wax, two parts of resin, and one-half part of pure Venice turpentine. Pour the warm mass into a jar and shake it well, adding six parts of rectified oil of turpentine. It is ready for use in twenty-four hours. Before using it, the furniture should be well washed with soap and water and dried.

THE SAND BLAST.—Sheldon & Slason, of Rutland, Vt., who have the contract for supplying 240,000 headstones for the National Soldiers' cemeteries, use the sand blast to cut the names instead of the slower operation of chiseling. By this means a name can be cut in four minutes, and 500 stones a day are turned out.

PATENT THIEVING TO BE STOPPED.—In 1872 no less than 800 patents were granted in England to persons who confessed that they had got their ideas by telegraph from abroad, having agents to look out for valuable new inventions and steal them. A bill has been introduced in Parliament to stop this.

THE JEWS AT THE CENTENNIAL.—The Jews will erect a centennial statue in Fairmount Park in 1876. The sculptor, M. Ezekiel, is now executing the work. The central figure is named "The Genius of Tolerance." The pedestal and statue stand twenty feet in height. The work will cost \$30,000.

WATER AND ICE.—Some one asks: Which is the heavier, a cubic foot of water or of ice, and what is the difference? A. The water is the heavier. If one cubic foot of distilled water at 39° Fah. weigh about 62½ lbs., one cubic foot of pure ice will weigh about 58½ lbs.

The total number of locomotives in the world is said to be 45,607.

A Phenomenon at Yosemite.

Formation of Hail in the Spray of Yosemite Fall.

Professor Wm. H. Brewer, at the last meeting of the California Academy of Sciences, described a peculiar phenomenon which occurs in the Yosemite valley, which is interesting, not only in a scientific point of view, but also to the public generally. On the 19th of this month, in company with Mr. Galen Clark, Custodian of the valley, Mr. Brewer visited the foot of the upper Yosemite fall. In the winter a great "ice cone" forms in front of this fall, mostly, it is probable, an accumulation of frozen spray. At the time of his visit it was much reduced by thawing from what it was a month since. When Professor Brewer saw it the cone extended below the fall several hundred feet, bridging the chasm to an unknown thickness. The two persons most familiar with it respectively estimated its thickness that day at "sixty to one hundred feet, and nearer two hundred feet." The outer side of this cone slopes away from the fall; the inner side rises like a wall in front of the sheet, which falls mostly behind it, with deep, thundering sound. The water flows beneath the mass and emerges from an icy arch at its foot. The stream was so high from the melting of the snow that it dropped from the extreme top, not clinging to the rounded crest, as it does when the water is lower, but leaping out so that the actual leap is perhaps 1,550 feet to the rocky bottom, and to the top of the ice cone nearly or quite 1,500 feet. Over the ice cone the spray is driven furiously by the powerful air-blast produced.

Professor Brewer says that the day of his visit was a warm and clear one, and the time of observation between 12 m. and 12:30 p. m., and the fall was in its brightest illumination, as it faces nearly south. As they neared the ice cone certain appearances suggested to Professor Brewer that the spray which drifted over it was (in part at least) snow. To examine this they ventured on this cone further than strict prudence dictated, and in the tempest which stung their hands and faces like shot, they found the spray in part to be hail or ice pellets. The exact character of these pellets could not be studied in the blinding blast to which they were subjected. They appeared to be hard like hail-stones, tolerably uniform in size, and Professor Brewer estimated them at about one-tenth of an inch in diameter. They accumulated in thin sheets on the rocks which rose through the ice near its edge, and were abundantly hurled along on the ice cone.

The ice cone, which had been very white during the winter, had been sullied by sand and dirt carried over it in the spray of the heavy storm of the week previous to the visit referred to. Near its lower edge, however, were many depressions filled with what appeared to be new and pure snow, which they believed to be in reality fresh accumulations of these ice pellets, but from their position it was impossible to examine them. Mr. Clark and Professor Brewer, however, pushed their way back to the rocky wall beside the fall, and as near the sheet as it was possible to breathe or stand. Professor Brewer says that if any of the pellets occurred there he could not prove it. He could not feel them, and the water so blinded him that nothing could be distinctly seen. On returning they kept on the rocks and noticed no ice pellets there. They had no thermometer to test the temperature of the freezing blast.

At Leidig's hotel, which is one and three-eighths miles distant and about 1,000 feet lower, the thermometer stood at about 52° F. at 6 a. m., 78° at 2:30 p. m., 79° at 3:15 p. m., 58° at 9 p. m., and 50° at 6 o'clock the next morning. They had no wet bulb to determine the dryness, but that the air was very dry was proved by the rapidity with which their saturated clothes dried.

When this fall was visited by the State Geological Survey, in June, 1863, the idea was suggested that they examine the temperature of the water above and below the fall, to see if any actual heating of the water occurred as a result of its concussion after falling from so vast a height. The dryness of the air was then so great that it was thought that evaporation would counterbalance, or at least vitiate any results that might be theoretically based on the mechanical equivalent of heat; so the experiment (which would have cost much labor and time) was not tried. The objection to the experiment was made by Professor Brewer himself, at that time attached to the Geological Survey.

On seeing this new phenomenon the hypothesis which immediately suggested itself to him as an explanation was that it was due to evaporation; that the fall is fed by melted snow, much of which still lies near its top; that the great volume of ice-cold water chills the adjacent air to nearly thirty-two degrees; that the air-current thus cooled, as it is drawn into and along with this descending mass, is a very dry current, and that its rapid saturation by the evaporation of a portion of the spray is sufficiently chilling to freeze drops of water up to a certain diameter. Had the ice pellets been portions of the ice cone, torn off from its edge and hurled outward with its spray, such a uniformity of size as Professor Brewer observed could not be expected.

Professor John Le Conte, on Professor Brewer describing the phenomenon to him, has suggested another hypothesis. It is that the air carried down and cooled by the water is somewhat condensed at the base of the fall, and that by its expansion as it gets away from the pressure, sufficient cold is produced to freeze the drops. —Scientific Press.

Down With High Living!

To be more prosperous on this coast, we need to live more economically and independently. Our rents are too high; our food costs too much; our fuel is too dear.

As Californians, we spend a good deal of money by following early customs rather than good common sense. By a little more independence, and a good deal more co-operation of capital, intelligence and honesty, our people may acquire cheaper and better living.

We want to talk more about this subject hereafter. In the meantime, let our readers compare a certain class of house-rents in Philadelphia with those of San Francisco, by reading the following correspondence to the *N. Y. Tribune*:

Let us begin with the cheapest class of dwellings. From \$6 to \$12 a month is the rent of a complete house containing everything essential to the comfort and cleanliness of a small family. Such houses are built in long rows, and usually upon narrow streets running between the main thoroughfares. Each has two rooms on the ground-floor and a small kitchen in the back extension. Sometimes the street door opens immediately into the front room; often there is a narrow wall. Up stairs are two bed-rooms, and there is a bath-room over the kitchen, supplied with hot water from the kitchen range. There is a cellar for fuel and provisions, and a small back yard. The houses of this class do not vary materially in size or interior accommodations, and the difference in price between the extreme figures of \$6 and \$12 depends upon the situation, whether central or suburban, and whether upon a regular street or alley. For \$10 may be rented a house of this kind in a respectable neighborhood, not more than twenty minutes by street-car from the State House, a point corresponding as a business centre to the City Hall in New York. These little dwellings are sometimes called "miniature houses." They are, of course, very small, and the upper rooms, under their thin sheet-iron roofs, are uncomfortably hot in summer; but the aid which they give to the poor to lead healthful, virtuous lives, will be appreciated if the condition of a family occupying one of them is contrasted with that of a family paying as much for two or three rooms on the third or fourth floor of a tenement house in New York. One has a home, humble though it may be, and can surround itself with the sweet and wholesome home-influences so important in great cities as safeguards against the temptations to vice, and so essential everywhere to the proper development of character. The other has a shelter from the weather and place in which to eat and sleep, and that is all.

A Home For All.

Every living thing should have a home. "Foxes have holes," and all burrowing animals excavate domicils suited to their need; why should man, of all other animals, neglect to provide a home for himself and family—or allow himself to depend upon his neighbor for such a necessity? Endowed to the highest degree with the faculty of "inhabiteness," why should he either choose or be compelled to curtail his natural desire for the luxury or rather necessity of a home? It should be one of the first duties of every man to procure for himself either a temporary or permanent home—one that he should be able to call his home, and from which no power or circumstances should be permitted to drive him, save important public necessity, or fire, or flood. Especially should this be the case with every married pair. A home of his own fixes a man as few other things can, and takes away both the necessity and desire for the too prevalent necessity of "moving," a ruinously costly practice, and one which is alike destructive of prosperity or pleasure to both parents and children.

The lack of ability to provide a costly or elegant home should be no excuse for a total neglect of the duty under consideration. An extremely humble home in proprietorship is far more honorable and praiseworthy than a more costly and showy one the possession of which depends upon the caprice of a landlord. At the same time no man should be content to live in an old rookery who is able to provide his family with a comely and convenient home.

Many who own homes are quite too indifferent to give their domicils that care and attention which is necessary to ensure a proper degree of comfort and love for the homestead. Children should be taught to love and feel an honest pride in their homes. Inducements should be held out which will naturally lead to such a result. Ornament your homes, as you may be able to do from time to time. A few shade and ornamental trees, a little flower-garden, a tidy fence around the homestead, cost but little and add wonderfully to the love which will be begotten in a son or daughter for their home.

As a general thing it is difficult to place money where it will insure more pleasure or profit than when invested in a home. Better spend money in building and improving a home than for thousands of things of which we soon tire or finally throw away as worthless.

What Constitutes a Perfect Home.

That which combines the most instrumentalities for comfort and domestic enjoyment, is he thing that should be most sought for in a home. That is the first and most rational end in a dwelling. In order to secure a reasonable degree of comfort the sanitary conditions of both house and locality should be taken into consideration. The house should be so placed as to secure for its rooms a proper amount of sunshine—modified, of course, according to climate. In the hot valleys shade is more desirable than on the sea coast. Too much sun can scarcely be thrown into a house in San Francisco.

Ventilation is another important matter which should be taken into consideration. Of this there should be a perfect control, in a manner to avoid drafts directly upon the inmates. Every human being requires a copious and constant supply of pure, fresh air, to ensure good or even passable health. The kitchen conveniences should form a prime consideration in every dwelling. Much depends on the arrangements for wood and water, and for sink, cooking and closet room, as regards the ease and facility with which the work in the family may be done. Practical house-keepers know that it takes nearly twice the labor to do up a given amount of work in some houses than it does in others. Who can tell the amount of fretfulness, ill-temper, to say nothing of unnecessary exhaustion and sickness which an unhandy house occasions?

In building much depends upon the selection of the best spot for building. The same money will often build a good house on one spot which will be required to build a very indifferent one in another. But be your choice what it may, the house and site should be adapted to each other, and to the wants of the family. An elevated site best secures a fresh, dry atmosphere and general health. A valley or low place is much more generally subjected to the unhealthy influences of fogs, miasmas, etc. Good water is always one of the first essentials.

If you propose to put up anything like an expensive house, an architect should be consulted by all means. Such an expense may perhaps be avoided when a mere cheap, temporary house is to be provided, until financial possibilities will enable you to do better by adding on or tearing down. We propose to notice this subject further in a future number in which the architectural considerations will be more fully discussed.

Learning Trades.

"Shall boys be forced into vagabondage?" is the question that sensible men are asking law makers. The evil has grown to such a fearful magnitude that the venerable Tharlow Weed, a mechanic himself, and one who knows of what he writes, makes use of the following language:

"Meantime thousands of boys who ought—and but for the evil influences just referred to, restricting the number of apprentices—would have been learning trades by means of which they would become useful citizens, are either variously seeking precarious support from temporary employments, or by unavoidable idleness acquiring habits which consign them to our houses of refuge and penitentiaries. There are at this moment hundreds of fathers and other hundreds of widowed mothers looking in anguish and despair upon the fate which awaits their sons, a fate which but for the tyranny of unions in preventing boys from becoming apprentices, might be averted. Heretofore the intelligence, enterprise, public spirit, patriotism and virtue, personal, political, social and moral, of the mechanical classes have been our boast and pride. Through these agencies villages have grown into cities and our cities developed into wealth and power."

Mr. Weed freely admits further on that whatever success he has enjoyed in his long life is owing to his habit, as an apprentice, a journeyman and a small beginner on his own account, of devoting eleven or twelve hours a day diligently and cheerfully to active and healthful physical labor.

A NOBLE MAN.—Holloway seems determined to show to the world that he is deserving of success, and that his pills should be more popular than ever. He has recently spent over \$700,000 to build a sanitarium for the insane in England, and he has now given \$100,000 for ground on which he will erect, at a cost of \$1,000,000, a college for women.

TO DISTINGUISH YOUNG FROM OLD FOWLS.—The rear end of the breast bone in a chicken is soft, a gristle, which, as the fowl grows older, hardens into solid bone; by pressing inward upon this bone it can readily be ascertained whether the fowl has been wintered or not, as it will easily be bent in a chicken, but cannot be bent in an old fowl. All edible birds, when young have the lower part of the feet soft, but as the fowl matures these become hard and rough.

ACCORDING to the laws of Oregon each State Senator is authorized to appoint one student, not less than 16 years of age, to attend the State Agricultural College at Corvallis.

It has been well said that girls who dress 'loud' soon come to talk and act loud.

Game and Fish.

The Laws Relating to their Preservation and Protection.

The Sacramento Record presents the following condensation of the laws of California relating to the preservation of game and fish:

Elk, Deer and Antelope.

It is unlawful to kill elk, deer or antelope between the first of January and the first day of July, in any county in this State, except Nevada (Penal Code, Sec. 628), and in Nevada county it is unlawful to kill them between the first day of February and the first day of August. (Stats. 1874, page 80.)

Quail, Partridge, Grouse and Wild Duck.

It is unlawful to kill quail, partridge, grouse or any kind of wild ducks, in any county of this State, between the 15th of March and the 15th of September, with the following exceptions: In San Bernardino and Los Angeles they shall not be killed between the first of August and the first of April, and in Lassen, Plumas and Sierra, quail, partridge and grouse shall not be killed between the 15th of March and the 15th of September, nor wild ducks between the 15th of March and the 15th of August and in Siskiyou sage hens and prairie chickens shall not be killed between the first of April and the first of August. (Penal Code, Secs. 626 and 627, Stats. 1866, page 855.)

Trout.

It is unlawful to catch trout in all the counties of this State between the 15th of October and the first of April, with the following exceptions: In Plumas and Sierra, they shall not be caught between the 15th of May and the 15th of July. It is unlawful at all times to catch trout in Butte creek, above the falls in Butte county, until March 1, 1877, and in Independence lake, in Nevada county, they shall not be caught between the 15th of May and the 15th of July. There is no law to prevent the catching of trout at any time in Siskiyou county. (Penal Code, Sec. 631, Stats. 1874, page 154; Stats. 1866, page 855; Political Code, Sec. 19, Stats. 1874, pages 87 and 154.)

Salmon.

It is unlawful to catch salmon in any of the rivers, in any of the counties of this State, between the first of August and the first of November, except in Eel river, Humboldt county, they shall not be caught between the 25th of November and the 15th of September. (Penal Code, Sec. 634, amended Stats. 1859, page 298, and Sec. 19, Political Code.)

Shad.

It is unlawful in any county of this State to take shad at any time until March 30, 1877.

Miscellaneous Provisions.

Any person who buys, sells, or has in his possession elk, deer, or antelope, quail, partridges or grouse, mallard, wood, teal, spoonbill or any kind of wild ducks, within the time the taking or killing thereof is prohibited, except such as are tamed or kept for show or curiosity, is guilty of a misdemeanor. (Penal Code, Sec. 633.)

Any person who puts in the waters of this State, or who uses any poisons or explosive substances for the purpose of taking or destroying fish, is guilty of a misdemeanor. (Penal Code, Sec. 635.)

California Indians taking fish for their own subsistence are exempted from the penalties prescribed in sections 631, 632, 633 and 634.

Every owner of a dam or other obstruction in the waters of this State, who after being requested by the Fish Commissioners so to do, fails to construct and keep in repair sufficient fish ways, or ladders on such dam or obstruction, is guilty of a misdemeanor. (Penal Code, Section 637.)

It is unlawful to catch fish in any private waters without the consent of the owner thereof. (Stats. 1869-70, page 664.)

It is unlawful to take fish from Lake Merritt by any means, except by hook and line. Set lines, night lines and crawls are prohibited. No wild birds or other game may be taken from Lake Merritt, or within a distance of 100 rods from high water mark upon the adjacent lands. (Statutes 1870, page 325.)

It is unlawful to use nets or seines in Stockton or Mormon slough, in San Joaquin county. (Statutes 1854, page 191.)

Every person who, in the counties of Santa Clara, Contra Costa, San Joaquin, Santa Cruz or San Mateo, uses or distributes phosphorus upon any land or ground between the first day of March and the first day of November, in any year is guilty of a misdemeanor. (Penal Code, Sec. 630.)

Every person who, in the counties of Santa Clara, Santa Cruz, San Mateo, Monterey, Alameda, Marin, Placer, Nevada, Plumas or Sierra, at any time, takes or catches any trout, except with hook or line, is guilty of a misdemeanor. (Penal Code, Sec. 632, amended.)

It is unlawful to hunt or shoot game within the limits of private inclosed lands in the counties of Alameda, San Mateo, Marin, San Bernardino, San Diego, Colusa, Sacramento, Sonoma, Nevada, Humboldt, Los Angeles, Santa Barbara, Contra Costa, San Luis Obispo and Mendocino. (Statutes 1874, page 892.)

LADIES ON SCHOOL BOARDS.—The six ladies who were elected to the Boston School Committee have formally taken their seats and been placed on several committees.

EVERY man admires moral courage, even though his own back-bone be made of pulp.

Cotton in California.

Perhaps a few words from this far off shore may be of interest to your thousands of readers, scattered all over the continent. I propose to give you a few facts concerning the culture of cotton in this State. Theory has always said that the cotton plant would not produce fibers here, and assigned as a reason that the southern atmosphere was moist, while ours was arid and dry—directly the reverse. But, in the face of this theory, some man had the hardihood to try the experiment. One fact is worth a dozen theories, and notwithstanding scientific opinion, cotton continued to grow, and the fields grew larger and larger, till now this fiber forms a very important part of our exports.

Unfortunately, I have to acknowledge that we ship our cotton across one of the most expensive railways in the world, get it made up into fabric, then ship it back again, a distance of 6,000 miles or more.

There are a great many Southern planters in California, who are well acquainted with the business, and understand the use of the cotton gin. These are the men who first led off in cotton raising, and they have been well rewarded for their enterprise.

When cotton culture was first spoken of, the objection raised was, that we could not compete with the negro labor of the South. Now the shoe is on the other foot, and we have our Chinese hosts to send into the cotton fields, at seventy-five cents and one dollar a day.

In most of our cotton districts, it is found necessary to resort to irrigators, as a substitute for the summer rains of the South. This mode of supplying moisture has been found to work no injury to the plant, nor does it diminish the yield. It would seem that our seasons are more favorable than those of the cotton States. After the first of May we have no rain until the first of November, and sometimes much later. This gives a much longer time in which to gather the fiber, without danger of damage from the weather.

The principal cotton districts in this State are the valleys of the San Joaquin, Sacramento, Tulare, and Kern, which embrace territory enough to produce as much cotton as any State in the South.

The experiments have proved successful financially. It is found that a crop of cotton yields double the amount of a wheat or corn crop. Specimens of cotton raised by Colonel Strong, in the San Joaquin valley, have been compared with Louisiana cotton, and were found to be superior in length, strength and fineness of fiber. The cotton raised here is long and fine, and remarkable for its softness and glossy appearance. The results of the successful solution of this problem cannot be too highly estimated. It will supply a profitable rotation of our lands; it will furnish a sure crop for our dry years; it will give more constant employment to labor, as the harvesting of cotton comes on after the grain harvest is ended; it will be the direct means of drawing capital to our shores, to engage in the manufacture of cotton fabrics; this will in turn give more employment to labor, and enable us to offer better inducements to immigrants.—*P. K. S., in Live Stock Journal.*

RAISINS.—The following extract from the Malaga Circular of Thomas McCullough & Son, under date of March 1st, will prove of interest to readers of the RURAL who have given attention to the production of raisins in this State:

"The weather during the past month was very prejudicial to the vines, and although during the last few days we have had some showers that have stopped for the present the too early budding of the plants, the damage already suffered will tell on the coming crop. Prices are nominally quoted at 34 rs. ex store for good fruit; at this figure it would, however, be difficult to obtain any quantity, as the stocks are so reconcentrated in strong hands, all waiting for a rise, that the slightest alteration in prices in New York will be followed by a more serious one here. We estimate stocks between town and country to be about 130,000 bxs, of which there are 10,000 in hf and qr bxs. The bulk of this stock is of good quality, farmers always retaining their best parcels on hand. Shipments this month are 85,000 bxs less than in the same month the last season, and we have only in the harbor the *Abby Bacon*, *Hedwig* and *Emanuel*, all of which will have to take other goods than raisins to fill."

There is no reason why, in the near future, California should not be able to supply the markets of the world with raisins, equal, if not superior, to those produced in Southern Europe. In the Atlantic States our raisins are already proving formidable rivals of imported ones. With every advantage of climate and easy access to market, nothing but experience is wanted to make the production of raisins in California one of the most important of our industries. There is annually expended for foreign currents and raisins from \$8,000,000 to \$10,000,000, which could as well be saved to swell our cash resources.

THE Cornell watch factory building, of Chicago, formerly occupied by the watch company which has removed to this city has recently been sold to Elisha Seymour, of Clinton, Iowa, for \$100,000. The building will hereafter be used for a chair factory.

The Lane & Bodley Portable Farm Engine.

The introduction of steam power into domestic uses is gradually becoming more universal, and it will not be long until the farm engine will have displaced nearly all the horse powers now so commonly used.

The one farm purpose to which steam is

with wood hubs well banded, and made of the best stock.

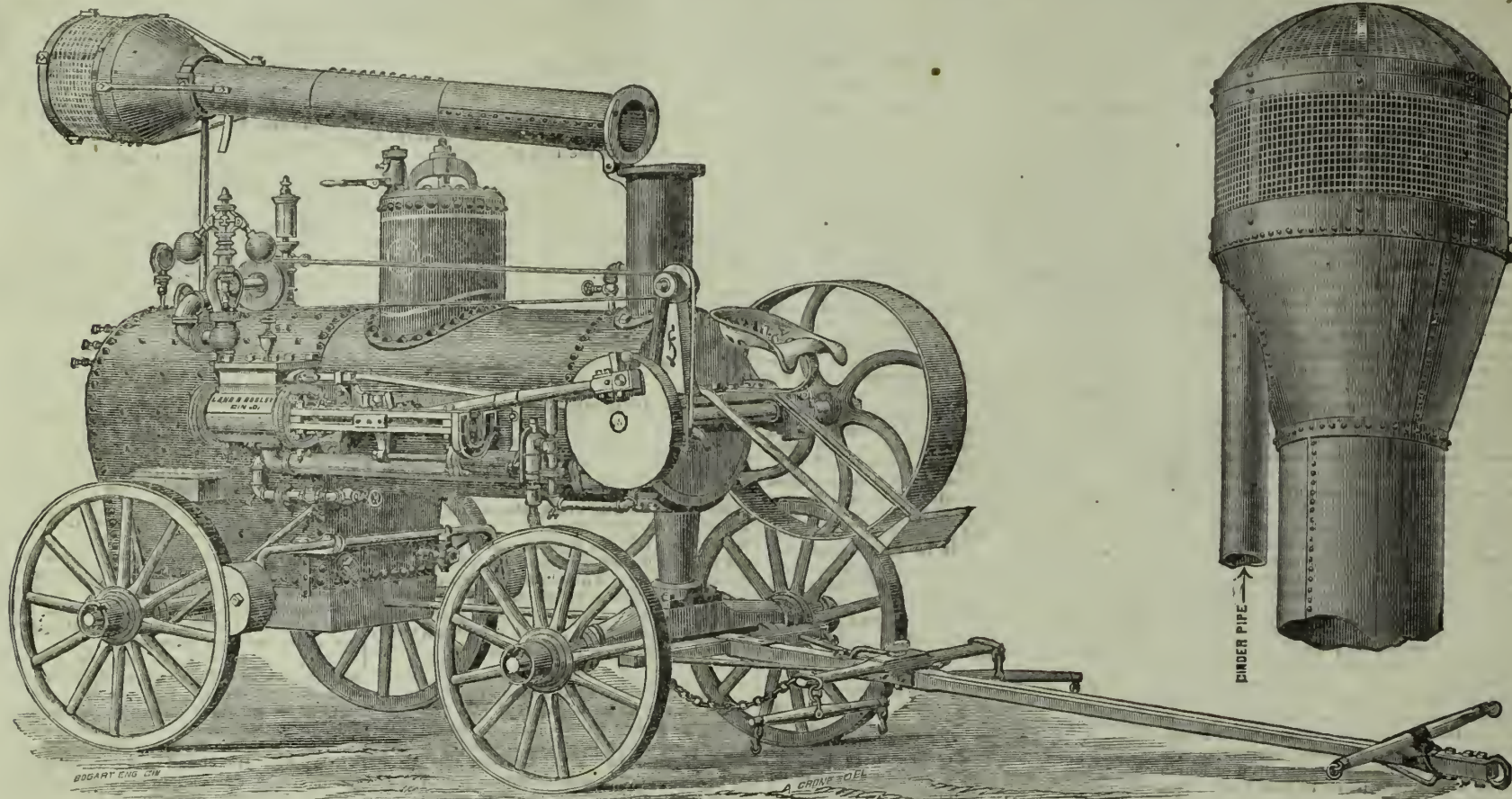
A distinctive feature of this engine is the method of attaching it to the boiler. A cast iron plate is used the full length of the engine and firmly fitted to the boiler. In the end of it is the main shaft bearing (which is of brass), and on the side and from the upper edge is hung and bolted the cylinder, slide yoke, force pump, etc. The eccentric is on the hub of the crank, and is fitted to be

The exhaustion of the steam into the smoke stack being necessary in this form of boiler, it is also necessary that the builder provide some means of retaining the sparks which will be conveyed up the stack. The cuts show the new device that is used upon all farm engines made by this firm.

The action is as follows: The exhaust steam conveys the sparks up in a straight line to the top; this is covered by a doubly woven fine screen which does not permit anything to pass

The Locomotive.

Looking at the locomotive in a national point of view, its value to a nation as a machine connected with the development of its wealth and progress is measured by the cost of carrying a ton of goods and a passenger a mile. The lower this can be made, the greater its benefit, and the more extended the range of its influence and operations. This should be the point of strife between nations: how low can



LANE & BODLEY'S PORTABLE FARM ENGINE, WITH SPARK ARRESTER.

most successfully applied is one of great magnitude upon this coast—the threshing of grain.

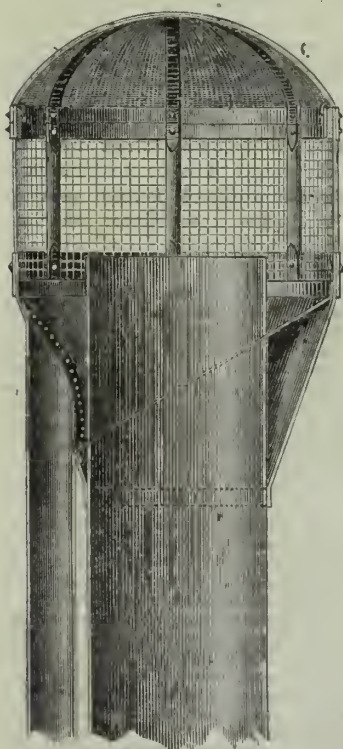
The engine shown in the accompanying engravings is the product of a house well known for their success in steam engineering, and

moved when desired to change the motion of the engine. The slides are of the locomotive pattern. The force pump and heater lies below the slides.

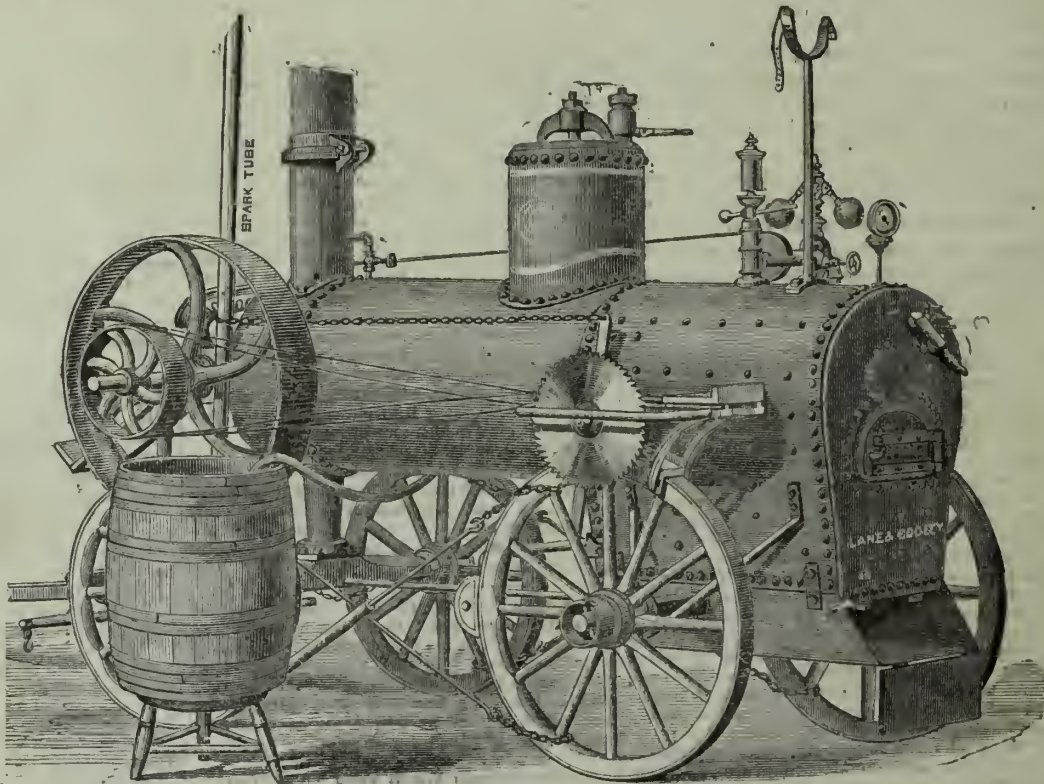
From this it will be seen that all the delicate parts of the engine are completely protected

through. The sparks strike this and rebound upon the inclined diaphragm, and gravitate through the tube to the barrel of water placed to receive the sparks. The sides of the bonnet is covered with a coarse wire cloth which presents no obstruction to the draft. The manufac-

you bring the cost of carrying? Any intelligent person who will examine this matter, with the vast amount of data at his command, will find that, considering the price we pay for labor, metals and fuel, no other country has solved this problem with the same gratifying results.



SPARK ARRESTER.



PORTABLE FARM ENGINE, WITH WOOD SAW ATTACHED.

throughout shows the superiority of a machine constructed in a finely equipped and organized engine shop.

In this engine the boiler is of such shape as to give the greatest amount of heating surface compatible with the limited size custom has established, and is of ample proportions for the size of cylinder attached. The materials used are strictly first-class, also the workmanship. Upon every boiler a dome is placed with man-hole for access to the interior. The boiler is placed on the top of the axles, which are of heavy wrought iron. The wheels are

from injury, and the center of the engine is placed very close to the boiler, making the machine more compact and greatly reducing the strains of the parts.

These engines are furnished with first-class governors, Ashton's patent locked safety valve, blower, tool box with a full equipment of wrenches, oil cans and tube scraper, suction hose, etc.

These engines have Babbitt & Harris' patent piston packing, which is a great improvement over the old fashioned spring packing. This makes a perfect packing with the least friction possible and is exceedingly simple.

turers claim that practical experience and many experiments have settled down upon this as the best arrester that can be used.

One of the views presents a wood-saw placed on the hind wheel. In some localities the engine owner is required to cut his own fuel from the cord wood into a suitable size for the fire box, and for the convenience of such this attachment is designed. When the engine is on the road this attachment is carried on the saddle shown in front of road.

This engine is sold on reasonable terms, and correspondence with the makers, Lane & Bodley, Cincinnati, is invited.

The vast business of the Pennsylvania Railroad, including the passage of the Alleghany Mountains, for 1874, shows that it moved nearly ten millions of tons of minerals and merchandise at a cost of 0.719 of a cent per ton per mile and carried more than six millions of passengers at a cost of 1.60 cents per passenger per mile. Can any other road in the world out of the United States show such results, or anything near them, after equating the prices paid for labor and metals, to say nothing of the severe climate, the steep grades and the sharp curves of this railway, which cannot be encountered without extra cost.

GRANGE DIRECTORY.

National Grange.

OFFICERS:

Master—DUDLEY W. ADAMS, Waukon, Iowa.
Overseer—THOMAS T. LOR, Columbia, South Carolina.
Lecturer—T. A. THOMPSON, Platteville, Wash. Co., Minn.
Steward—A. J. VAUGHAN, Early Grove, Marshall Co., Miss.
Assistant Steward—G. W. THOMPSON, New Brunswick, N. J.
Chaplain—REV. A. B. GROSS, Washington, D. C.
Treasurer—F. M. McDOWELL, Wayne, N. Y.
Secretary—O. K. LITTLE, Washington, D. C.
Gate-keeper—O. D. WIDWID, Orchard Grove, Lake Co., Ind.
Ceres—MRS. D. W. ADAMS, Waukon, Iowa.
Pomona—MRS. O. H. KELLEY, Washington, D. C.
Flora—MRS. J. C. CABBOTT, Clarksville, But. Co., Iowa.
Lady Assistant Steward—MRS. O. A. HALL, Washington, D. C.
Executive Committee:
 WILLIAM SAUNDERS, Washington, D. C.
 D. WYATT Aiken, Cokesbury, Abbeville Co., S. C.
 E. R. SHANKLAND, Dubuque, Iowa.
 JOHN T. JONES, Helena, Phillips Co., Ark.
 DUDLEY T. CHASE, Claremont, N. H.

California State Grange.

OFFICERS:

Master—J. M. HAMILTON, Guenoc, Lake Co.*
Overseer—J. A. ABBOTT, Santa Barbara.
Lecturer—O. W. A. WRIGHT, Borden, Fresno Co.
Steward—L. M. ALLEN, Salinas, Monterey Co.
Assistant Steward—M. M. JACKSON, Woodland, Yolo Co.
Chaplain—J. A. HUTTON, Yolo Co.
Treasurer—J. B. CARRINGTON, Denver, Solano Co.*
Secretary—W. H. BAXTER, 6 Leidesdorff street, S. F.
Gate-keeper—R. R. WARDER, Waterford, Stanislaus Co.
Ceres—MRS. G. W. DAVIS, Santa Rosa, Sonoma Co.
Pomona—MRS. S. C. BAXTER, Napa City, Napa Co.
Flora—MRS. R. S. HEGLER, Bodega, Sonoma Co.*
Lady Assistant Steward—MRS. S. M. GARDNER, Grayson, Stanislaus Co.*

Executive Committee:

J. M. HAMILTON, W. M., Chairman, Guenoc, Lake Co.*
 I. G. GARDNER, Grayson, Stanislaus Co.*
 J. C. MERRYFIELD, Dixon, Solano Co.
 H. M. LEONARD, Santa Clara, Santa Clara Co.
 J. M. THOMPSON, Suscol, Napa Co.
 G. W. COLBY, Nord, Butte Co.
 A. B. NALLY, Winton, Sonoma Co.
 *Address, at present, San Francisco.

State Agency:

Headquarters of Executive Committee and State Agent at No. 6 Leidesdorff street, San Francisco.—I. G. GARDNER, General Agent.

List of Organizing Deputies.

COUNTY.	DEPUTY.	POST OFFICE.
Alameda.	Thos. Heller.	Haywood.
Alameda.	H. Vanderpool.	Pl. nouth.
Butte.	Ed. Hallett.	Chico.
Butte.	Wm. M. Thorpe.	Chico.
Butte.	G. W. Colby.	Nord.
Colusa.	J. J. Hick.	Grand Island.
Colusa.	O. L. Arnold.	Spring Valley.
Colusa.	R. G. Dann.	Antioch.
Colusa.	A. J. Christie.	Colusa.
Colusa.	J. W. A. Wright.	Borden.
Colusa.	H. W. Arbogast.	Arcaata.
Colusa.	T. J. Fisher.	Bishop's Crk, Inyo.
Colusa.	H. Oliver.	Guenoc.
Colusa.	Thos. A. Garey.	Los Angeles.
Colusa.	Ed. Evey.	Anaheim.
Colusa.	R. M. Wilson.	Cahto.
Colusa.	H. B. Jolley.	Merced City.
Colusa.	T. S. Mathews.	Port Jones.
Colusa.	T. C. Furber.	Bishop's Crk, Inyo.
Colusa.	J. D. Fowler.	Hollister.
Colusa.	A. D. Neher.	Roseville.
Colusa.	S. S. Manlove.	Sacramento.
Colusa.	J. D. Fowler.	Hollister.
Colusa.	I. G. Gardner.	San Francisco.
Colusa.	J. H. Hegler.	San Francisco.
Colusa.	A. Wolf.	Stockton.
Colusa.	A. J. Motherhead.	Moro.
Colusa.	Isaac Flood.	Old Creek.
Colusa.	J. A. Lathrop.	Shafter, Parhara.
Colusa.	G. W. Henning.	San Jose.
Colusa.	J. T. Dinsmore.	Reading.
Colusa.	I. S. Mathews.	Fort Jones.
Colusa.	J. B. Carrington.	Denverton.
Colusa.	C. H. Hale.	Suisun.
Colusa.	J. C. Merfield.	Santa Rosa.
Colusa.	Geo. W. Davis.	Windsor.
Colusa.	A. B. Nally.	Headsburg.
Colusa.	T. H. Merry.	Modesto.
Colusa.	J. D. Spencer.	Modesto.
Colusa.	W. R. Reymann.	Yuba City.
Colusa.	Geo. Obleyer.	Farmington.
Colusa.	A. J. Loomis.	Kingston, Fresno.
Colusa.	M. S. Babcock.	Wm. Higgins.
Colusa.	E. B. Higgins.	Buckeye.
Colusa.	Wm. Sims.	Buckeye.

General Deputies.

Alameda. Ezra S. Carr. Oakland.
 Fresno. J. W. A. Wright. (W. L.) Borden.
 Lake. J. M. Hamilton. (W. M.) Guenoc.
 San Francisco. W. H. Baxter. (W. S.)
 San Francisco. John H. Hegler. San Francisco.
 Solano. John B. Carrington. Denverton.
 NEVADA.
 A. J. Hatch. Reno.
 Farmers desiring to organize Granges, can apply to J. M. Hamilton, (W. Master), Guenoc, Lake Co.; W. H. Baxter, (W. Sec'y), No. 6 Leidesdorff St., S. F.; J. W. A. Wright, (W. Lecturer), Borden, Fresno Co.; or to the nearest Deputy to their locality.

Oregon State Grange Directory for 1875.

Farmers of Oregon, and Washington and Idaho Territories: Organize for self protection and for the enlightenment of the industrial pursuits. To facilitate this work, I have commissioned the following persons as my Deputies, in this jurisdiction, to institute Granges, and to have a general supervision of our work in their respective jurisdictions.

For Douglas County—R. M. Gurney, Ten Mile P. O.
 Cons—J. Henry Schroeder, Ott P. O.
 Jackson—D. S. R. Buick, Ashland P. O.
 Lane—H. N. Hill, Junction; and George R. Hamersly, Camp Creek.
 Linn—Wm. Cyra, Scio; R. A. Irvine, Lebanon; S. D. Hale, Peoria.
 Benton—Chas. E. Moor and Jacob Modie, Corvallis.
 Polk—James Tatom, Dixie.
 Marion—B. A. W. Lutz, Taylor.
 Yamhill—Alexander Reid, McMinnville; and A. B. Henry, Lafayette.
 Washington—T. D. Humphrey, Hillsboro; and Henry Buxton, Forest Grove.
 Clackamas—E. Forbes, Oregon City; and A. R. Shipley, Oswego.
 Multnomah—Jacob Johnson and W. J. Campbell, East Portland.
 Columbia—J. M. McIntire, McIntire's Land, S. Sauvie's Island.
 Clatsop—R. W. Morrison.
 Wasco—R. Mayes, The Dalles; and J. H. Douthit Upper Ochoo.
 Grant—D. B. Rhinehart, Canon City.
 Umatilla—John S. White, Weston.
 Baker—Wm. Brown, Baker City.
 Tillamook—H. F. Holden.

WASHINGTON TERRITORY.

Walla Walla County—Wm. M. Shelton and O. Hull, Walla Walla.
 Whitman—Henry Spalding, Ewartsville.
 Clark—H. M. Knapp, Mill Plain or Vancouver.
 Chelan—M. Z. Goodell, Elma.
 Thruston—E. L. Smith, Olympia; and Wm. Packwood, Tenino.
 King—Julius Horton, Seattle.
 Pierce—John S. Bozarth, Pkin.
 Lewis & Clark—S. M. Mackham, Chehalis Point.

IDAHO TERRITORY.

Nepz County—S. S. Howard, Paradise Valley; and W. O. Pearson, Mt. Idaho.
 Ada—M. Russell, Weiser; and L. F. Cartee, Boise City.
 Any locality within this jurisdiction for which no deputy has been appointed for the organization of Granges, will receive immediate attention if application is made to me. I will attend to it in person or appoint or send a Deputy.
 DANIEL CLARK,
 Master Oregon State Grange, P. O. H.
 Salem, Jan. 4, 1875.

The National Grange.

STATE.	MASTER.	ADDRESS.
ALABAMA.	W. H. Chambers.	Oswichee, Russell Co.
ARKANSAS.	John T. Jones.	Helena, Phillips Co.
CALIFORNIA.	J. M. Hamilton.	Guenoc, Lake Co.
COLORADO.	R. Q. Tenney.	Fort Collins, Larimer Co.
DELAWARE.	(United with E. B. Crew.)	Maryland.
DAKOTA.	B. F. Wardlaw.	Lodi, Clay Co.
FLORIDA.	T. J. Smith.	Madison, Madison Co.
GEORGIA.	Alonso Golder.	Rock Falls, Whitesides Co.
ILLINOIS.	Henry James.	Marion, Grant Co.
INDIANA.	A. B. Smedley.	Cresco, Howard Co.
IOWA.	(United with E. B. Crew.)	Oregon.
KANSAS.	E. E. Hudson.	Beverly, Bourbon Co.
KENTUCKY.	D. D. Davis.	Beverly, Christian Co.
LOUISIANA.	H. W. Lewis.	Osyka, Pike Co., Miss [co]
MAINE.	Nelson Ham.	Leviaton, Androscoggin
MARYLAND.	Joe T. Moore.	Sandy Springs, Mont co
MASS.	Joseph P. Felton.	Greenfield, Franklin co
MICHIGAN.	S. F. Brown.	Schoic H. Kalamazoo co
MINNESOTA.	S. E. Adams.	Monticello, Wright co
MISSISSIPPI.	W. L. Hemingway.	Carrollton, Carroll co
MISSOURI.	T. R. Allen.	Albenton, St. Louis co
MONTANA.	Brigham Reed.	Bozeman, Gallatin co
NEBRASKA.	Wm B. Porter.	Plattsmouth, Cass co
NEW HAMPSHIRE.	Dandley T. Chase.	Clamout, Sullivan co
NEW JERSEY.	Edw. Howland.	Hammon, Atlantic co
NEW YORK.	Geo D. Hineley.	Fredonia, Chautauqua co
N. CAROLINA.	Colmuhus Mills.	Concord, Cabarrus co
NEVADA.	Chapman L. Clark.	Springboro, Warren co
OHIO.	S. E. Adams.	Monticello, Wright co
OREGON.	Daniel Clark.	Salem, Marion co
PENNA.	D. B. Mauger.	Douglasville, Berks co
S. CAROLINA.	Thomas Taylor.	Columbia, Richland co
TENNESSEE.	Wm Maxwell.	Humboldt, Gibson co
TEXAS.	Wm. L. Gage.	Iraburg, Orleans co [co]
VERMONT.	E. P. Colton.	Eureka Mills, Charlotte
VIRGINIA.	J. W. White.	Shanghai, Berkeley co
W. VIRGINIA.	M. K. Kitchen.	Waupun, Fond du Lac co
WISCONSIN.	John Cochrane.	(United with Oregon)
WASHINGTON.	(United with Oregon)	

Oregon State Grange.

OFFICERS:

Master—DANIEL CLARK, Marion Co.
Overseer—WILLIAM CYRUS, Linn Co.
Lecturer—E. L. SMITH, Olympia, Washington Territory.
Steward—W. M. SHELTON, Walla Walla, W. T.
Assistant Steward—W. M. POWERS, Linn Co.
Chaplain—M. PETERSON, Jackson Co.
Treasurer—S. P. LEE, Clackamas Co.
Secretary—J. HENRY SMITH, Linn Co.
Gate-keeper—A. A. MATHEWS, Douglas Co.
Ceres—MRS. JANE CYRUS, Linn Co.
Pomona—MRS. M. POWERS, Linn Co.
Flora—L. C. REID, Yamhill Co.
Lady Assistant Steward—MRS. L. S. FOLSOM, Lane Co.

Executive Committee.

S. W. BROWN, Clarke Co., W. T.
 H. N. HILL, Lane Co.
 C. E. MOOR, Benton Co.
 ORLEY HULL, Walla Walla.
 E. FORBES, Clackamas Co.
 M. FISK, Salem.

California Subordinate Granges.

[This list contains the names of Masters and Secretaries so far as reported to us, elected to serve during the year 1875. In Granges not reported we continue the names of last years officers. Secretaries and others will greatly oblige us by making useful corrections.]

EXPLANATIONS.—The P. O. address is given only where it is different from the name of the Grange.

Grange and P. O.	Master.	Sec'y.
AMADOR COUNTY.		
PLYMOUTH.	H. VANDERPOOL.	S. C. WHEELER
JACKSON VALLEY.	J. C. HAMRICK.	L. J. DOOLEY
ALAMEDA COUNTY.		
CENTERVILLE.	JAS. SHINN.	M. B. STURGES.
EDEN, Hayward's.	THOS. HELLAR.	WM. PEARCE.
LIVERMORE.	D. INMAN.	P. R. FASSETT.
SUNOL.	E. M. CARL.	S. W. MILLARD.
TEMSCAL, Oakland.	J. W. WEBSTER.	JOHN COLLINS.
BUTTE COUNTY.		
CHICO.	E. HALLETT.	H. W. BARNES.
EVENING STAR, Nelson.	A. D. NELSON.	A. M. WOODRUFF.
HAMILTON, Bikes' St.	H. L. LASSALLE.	ANGUS BROWN.
NORD, P. O. Nord.	J. W. WEBSTER.	PETER KERN.
CALAVERAS, Jny Lind.	M. F. GREGORY.	MRS. RODGERS.
COLUSA COUNTY.		
ANTELOPE VALLEY.	JOHN STEES.	P. PETERSON.
CENTER, Colusa.	D. E. E. E. E.	CARRIE WELLY.
COLUSA, Colusa.	J. O. WILKINS.	R. JONES.
FRESHWATER, Colusa.	P. S. PERDUE.	R. A. WILSEY.
FUNK SLOUGH, Colusa.	L. D. McDOW.	E. C. HUNTER.
GRAND ISLAND.	J. C. WILKINS.	JAMES HEARN.
NEWVILLE.	B. N. SCHENBER.	J. W. OSBORNE.
PLAZA, Jacinto.	M. KENDRICK.	J. W. BOWER.
PRINCETON.	R. R. RUSH.	J. H. SCOTT.
SPRING VALLEY.	B. LUCAS.	T. SINGLETON.
UNION, Princeton.	J. F. GARR.	W. W. DOLLINGS.
WILLOWS, Princeton.	J. ZUNWALT.	G. T. HICKLIN.
CONTRA COSTA COUNTY.		
ALHAMBRA, Martinez.	J. STENZEL.	W. A. FRAZER.
ANTIOCH.	M. A. WALTON.	J. D. DABBY.
DANVILLE.	C. WOOD.	J. R. SYDNOR.
POINT OF TIMBER.	H. C. MCCABE.	E. W. CAREY.
WALNUT CREEK.	H. S. GRAY.	R. M. JONES.
EL DORADO COUNTY.		
CLARKSVILLE.	R. T. MILLS.	I. MALTBY.
EL DORADO.	C. G. CARPENTER.	J. M. B. WATHERWAX.
PILOT HILL, Pilot Hill.	JOHN BISHOP.	A. J. BAYLEY.
SUTTER HILL, Coloma.	J. G. O'BRIEN.	H. MAHLER.
ADAMS, Big Dry Creek.	T. P. NELSON.	T. WYATT.
HORDEN.	H. L. PATTERSON.	J. FONTAINE.
FRESNO, Fresno City.	D. C. LIBBY.	F. DUSY.
GARRETSON, King's R.	JOS. BURNS.	H. C. HIGBY.
RISING STAR, Panochi.	J. C. HAGAR.	W. M. POAGE.
SYCAMORE.	C. B. BRADDER.	J. A. ALLEN.
HUMBOLDT COUNTY.		
ELK RIVER, Eureka.	T. S. STEWART.	D. A. DEMERRIT.
PERNDAL.	T. F. BOYNTON.	E. C. DAMON.
KIWELETT, Arcata.	D. A. DEVERILL.	F. MCPHEE.
MATTOLE, Petrolia.	J. C. MINER.	DAVID SIMMONS.
ROCKVILLE, Eureka.	J. S. CASE.	S. T. CLARK.
TABLE BLUFF.	J. SAWYER.	E. CLARK.
INYO COUNTY.		
BISHOP'S CREEK.	A. DELL.	W. T. WISWALL.
INDEPENDENCE.	W. J. SYMMES.	D. BEURTS.
LONE PINE.	C. C. COLL.	A. H. JOHNSON.
BAKERSFIELD.	J. R. RILEY.	P. D. JEWETT.
CUMMINGS VALY, Tehachiga.	G. THOMPSON.	T. YATES.
LINN'S VALY, Glennville.	S. W. WOODY.	S. E. REED.
NEW RIVER, Bakersfield.	W. NORTON.	L. G. BAKER.
PANAMA, Eureka.	C. C. CAMPBELL.	J. W. CHARTOFF.
RISING STAR, Paooche.	C. VALPEY.	J. W. CHARTOFF.
TEHAICIPA.	J. NORBOE.	J. PREWETT.
WELDON.	J. B. BARTZ.	JAMES SWAN.
LAKE COUNTY.		
GENOC.	T. SOPER.	W. C. GREENFIELD.
KELSEYVILLE.	D. P. SHATTUCK.	T. ORMISTON.
LAKEPORT.	J. W. BOGGS.	N. PHELAN.
LOWER LAKE.	J. W. HOWARD.	LUCY S. WILSON.
UPPER LAKE.	D. V. THOMPSON.	D. MCCARTY.
LOS ANGELES COUNTY.		
ALLIANCE, El Monte.	J. D. DUFFEY.	W. MANSFIELD.
AZUSA, El Monte.	W. W. MAXEY.	J. C. PRESTON.
COMPTON.	J. J. MONTON.	T. V. KIMBLE.
EL MONTE, El Monte.	J. T. GORDON.	A. H. HOYT.
ENTERPRISE, L.A.'s.	T. E. ALEXANDER.	MRS. ALEXR.
EUREKA, Spadra.	W. M. VANDERBILT.	P. C. TONER.
FAIRVIEW, Anaheim.	E. REY.	J. M. GUINN.
FLORENCE, Los Ang's.	PHILIP HOW.	R. RAMSEY.
FRUITLAND, Sta. Ana.	N. O. STAFFORD.	L. H. COLLINS.
LOS ANGELES.	T. A. GAREY.	S. A. WALDRON.
LOS ANGELES.	E. H. GRANTIN.	W. S. KEATH.
NEW RIVER, L. Nietos.	W. NEWTON.	S. G. BAKER.
ORANGE.	J. BEACH.	L. J. LOCKHART.
SILVER, L. Nietos.	H. L. MONTGOMERY.	W. P. McDONALD.
SPADRA.	A. T. CURRIER.	JOS. WRIGHT.
VINELAND, Tustin Co.	A. H. HAYWOOD.	L. FREEMAN.
WESTVIEW, Tustin Co.	M. B. CRAIG.	W. P. POOL.
WELLINGTON.	M. H. HAWLEY.	J. N. MANN.
MARIN COUNTY.		
NICASIO.	P. K. AUSTIN.	J. W. NOBLE.
POINT REYES.	N. H. STINSON.	A. H. STINSON.
TOMALES.	W. M. VANDERBILT.	R. H. PRINCE.
MENDOCINO COUNTY.		
CARTO.	H. BRADEN.	H. CLARK.
LITTLE LAKE.	A. P. MARTIN.	W. A. WRIGHT.
MANCHESTER.	B. F. MCCLURE.	W. F. MCCLURE.
POMO.	J. MEWHINEY.	G. B. NICHOLS.
POTTER VALY, L. A. Preston.	MRS. A. H. SLINGERLAND.	

ROUND VALLEY.

Ovelo, P. HANDY. WILL TODD.
 E. M. CARB. M. GREGORY.
 THOS. A. LOCA. A. O. CARPENTER.
 UKIAH.

MERCED COUNTY.

BADGER FLAT, L. Bano. J. L. CRITTENDEN. W. F. CLARKE.
 COTTONWOOD. J. L. CRITTENDEN. J. M. DALEY.
 HOPETON. JOHN BUTTLE. T. EGGLESON.
 LOS BANOS. A. P. MERIT. W. F. SMITH.
 MERCEDE. W. F. ELLIOT. JAS. B. RALSTON.
 PLAINSBURG. W. F. ELLIOT. T. J. E. WILCOX.
 SNELLING. ERSTUS KELSEY. FRANK LARIN.

MONTREY COUNTY.

MORNING STAR, Castville. C. E. WILLIAMS. F. BLAKE.
 PAJARO, Watsonville. D. M. CLOUGH. L. B. JOHNSON.
 SALINAS. J. R. HEBBERN. CLARA WESTLAKE.

NAPA COUNTY.

BERRYESSA, Monticello. J. W. SMITTE. L. H. BUFORD.
 CALISTOGA. W. B. PRATT. C. H. MENEFFEE.
 NAPA, Napa City. J. B. SAUL. A. A. R. UTTING.
 POPE VALLEY. J. A. VAN ARSDALE. C. A. BOOTH.
 RUTHERFORD, Yntville. G. M. BARRETT. H. W. CRABBE.
 HULENA. J. L. WELWELL. CHAS. A. STORY.
 YOUNTVILLE. J. M. MAXFIELD. F. GRIFFIN.

PLACER COUNTY.

LINCOLN. E. A. J. SOULE. J. S. MARINER.
 ROSEVILLE. A. D. USHEE. ROBERT WARR.
 SHERIDAN. D. M. LONG. S. J. LEWIS.

SACRAMENTO COUNTY.

AMERICAN R. Patterson. J. A. EVANS. W. W. KILGORE.
 COSUMNES, Sheldon. J. A. ELDER. J. H. ATRINS.
 ELK GROVE. JULIUS EYERSON. DELOS GAGE.
 ENTERPRISE, Brighton. G. C. KARTIN. A. ROOPE.
 FLORIN. L. FUSCETTE. J. J. BATES.
 FRANKLIN. L. AMOS ADAMS. P. R. BECKLEY.
 GALT. J. C. SAWYER. J. L. FIFIELD.
 GEORGIANA, Rio Vista. F. M. KITTRELL. G. A. KNOTT.
 SACRAMENTO. W. S. MANOVE. E. F. Aiken.
 SHERMAN, E. Emmanon. J. M. UPHAM. W. M. ROBINSON.
 WALNUT GROVE. S. RUNTON. J. V. PRATHER.

SAN BENITO COUNTY.

MOUNTAIN, San Benito. G. BUTTERFIELD. J. W. MATHEWS.
 HOLLISTER. R. RUCKLEGE. MARY E. COWAN.
 SAN BERNARDINO. F. M. SLAUGHTER. JOHN TAYLOR.
 RIVERSIDE. W. R. RUSSELL. G. W. GARCELON.
 SAN BERNARDINO. Geo. Lord. H. GOODALL, JR.

SAN DIEGO COUNTY.

BALENA. C. O. TUCKER. MRS. C. O. TUCKER.
 SAN JACINTO. T. D. HENRY. MRS. M. COLLINS.
 NATIONAL RANCH. F. KIMBALL. S. T. BLACKMORE.
 SAN JOAQUIN COUNTY.

SAN JOAQUIN COUNTY.

ATLANTA, Stockton. R. RUCKLEGE. MARY E. COWAN.
 CASTORIA, Stockton. F. J. WOODWARD. EUGENE KAYE.
 COLLEGEVILLE. F. P. WARD. S. R. CHALMERS.
 ELLIOT. F. R. L. JOHNS

BREEDERS' DIRECTORY.

PURCHASERS OF STOCK WILL FIND IN THIS DIRECTORY THE NAMES OF SOME OF THE MOST RELIABLE BREEDERS. OUR RATES.—Six lines or less inserted in this directory at 50 cts a line per month, payable quarterly.

CATTLE.

R. ASHBURNER, Baden Station, San Mateo Co., Cal., breeder of Short-horn cattle. Pure Bred Bulls for sale, from cows of choice milking strains.

J. BREWSTER, Galt Station, Sacramento Co., Cal., breeder of Short-Horn Cattle.

J. D. CARR, Gabilan, Monterey Co., Cal., breeder of Trotting Horses, Short-Horn Cattle, Thoroughbred Spanish Merino Sheep and Swine.

A. MAILLAIRD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.

W. L. OVERHISER, Stockton, San Joaquin Co., Cal., breeder of Short-Horn Cattle and Berkshire Swine.

PAGE BROTHERS, 304 Davis street, San Francisco, (or Cotate Ranch, near Petaluma, Sonoma Co.): Breeders of Short-Horns and their Grades.

STANTON & POWERS, Sacramento, Cal. Breeders of Jersey Heifers and Bull Calves at low rates. Address L. C. Powers, Sacramento, Cal.

MOSES WICK, Oroville, Butte Co., Cal., breeder of Short-Horn Cattle. Young bulls for sale.

SHEEP AND GOATS.

H. F. BUCKLEY, Hopeton, Cal. Thoroughbred also 1/4 and 1/2 Cotswold grade sheep.

MRS. ROBERT BLACOW, Centerville, near Niles Station, Alameda Co., Cal. Pure-Blooded French Merino Sheep for sale.

N. GILMORE, El Dorado, El Dorado Co., Cal., importer and breeder of Angora Goats.

LANDRUM & RODGERS, Watsonville, Santa Cruz County. Pure-Bred Angora Goats and Cotswold Sheep for sale.

SEVERANCE & PEET, Niles, Alameda Co., Cal., breeders of Thoroughbred Spanish Merino Sheep.

A. G. STONESIFER, Hill's Ferry, Stanislaus Co., Cal., breeder of Pure-Blooded French Merino Sheep.

L. M. SHIPPEE, Stockton, Cal. Importer and breeder of Spanish Merino Sheep, Durham Cattle and Essex Swine.

POULTRY.

GEO. B. BAYLEY, Cor. 16th and Castro streets, Oakland, Cal. Imported Brahmas and other choice Fowls for sale.

ALBERT E. BURBANK, 43 and 44 California Market, San Francisco, importer and breeder of Fancy Fowls, Pigeons, Rabbits, etc.

M. EYRE, Napa. Bronze Turkeys, Emden Geese, Choice Fowls, Pigeons, Rabbits, etc.

WILLIAM KNOWLES, Brooklyn, Alameda Co., Cal., has for sale Eggs for Hatching, carefully packed, from pure-bred Bronze Turkeys, at \$7.50 per dozen; Brown Leghorns at \$4.00 per dozen; Houdans, White Leghorns and Buff Orpingtons at \$3.00 per dozen; two dozen for \$5.00. Sent C. O. D. to any address.

Mrs. L. E. McMAHAN, Dixon, Solano Co., Cal. Bronze Turkeys now ready for sale from the best imported stock; also eight varieties of choice Chickens; Eggs in season can be purchased very reasonably.

Mrs. L. J. WATKINS, Santa Clara. Premium Fowls. White Leghorn, S. S. Hamburg, Game Bantams, and Aylesbury Ducks. Also, Eggs. 21v8-31

Live Stock Notices.



Pure Blooded French Merino Rams For sale by MRS. ROBERT BLACOW, of Centerville, Alameda County, Cal., near Niles Station, on the Western and Southern Pacific Railroad.

These Sheep are guaranteed of pure descent, from the French Imperial Flock at Rambouillet, and are equal, if not superior, to any of this breed in size and quality of wool, and are proved to be the heaviest shearers in the world.



GABILAN HERD

Spanish Merino Sheep.

I have just purchased of Mr. George Hammond, of Vermont, three car-loads of Spanish Merino Sheep, (335 head, Ewes and Bucks) which, with others that I purchased last Fall, (also direct from Vermont) makes my band of Thoroughbred Spanish Merinos about 650 head.

I am prepared to sell both Bucks and Ewes, of Pure Blooded Spanish Merinos—as good as can be had in the World—so says Mr. Hammond. Parties interested will please give me a call. I am ten miles from Salinas City, Gabilan P. O., Monterey county.

J. D. CARR.

N. B.—I have also Good Graded Bucks for sale, and can dispose of some Good Graded Ewes. J. D. C.



SULTAN SECOND.

Angora or Cashmere Goats of pure blood and all grades for sale in lots to suit purchasers. Location, four miles from Railroad Station, connecting with all parts of the State. For particulars, address N. Gilmore, El Dorado, El Dorado County, Cal.

The Imported Draft Stallion, ADOLPH,



Will make the Season of 1875 at the Stable Proprietor, COR. FOURTEENTH AND MISSION STREETS, SAN JOSE, COMMENCING MARCH 1st, AND CONTINUING FOR NINETY DAYS.

Adolph was imported from Belgium to Illinois in June, 1872, and to California in October last. He is a pure-bred Draft Horse, of the French Farnhamack stock, of a dark brown color, good life, kind disposition and fine movement for a horse of his size. Is seven years old, 16 1/2 hands high, and weighs 1,650 pounds.

Terms, For the Season - - - \$25.00. Payable during the season in U. S. gold coin, or \$10 paid down and \$15 payable when mare is known to be with foal.

Mares from a distance can be kept on good pasture and cared for at \$4 per month. All accidents and escapes at the risk of the owner.

I have imported 12 head of the same stock of horses from Illinois, and invite examination and comparison with any stock of the class in the State. Four three-fourth blood stallion colts for sale. Can be seen on my farm, three and one-half miles east of the city.

L. V. WILLITS.

Thoroughbred Spanish Merinos FOR SALE.

60 one and two-year old Thoroughbred Spanish Merino Rams, California bred, from Ewes imported from Vermont, and sired by Severance & Peet's Celebrated Ram "Tremont," and by their Ram "Green Mountain," which took the first premiums at the Bay District and State Fairs. Last shearing—35 1/2 lbs—years' growth.

Also, about 100 Ewes and Lambs, all of "Green Mountain" Stock, bred this year.

B. F. WATKINS,

Santa Clara, Cal.

12 Short-Horn Bulls,



fat and sleek, thoroughbred, just from Kentucky, at Saxe's Stables, 36 Ritch Street, between Folsom and Harrison, two blocks from Grand Hotel. Inquire at Saxe's Stables, or Room 32 Russ House. 3v9-3m

FOR SALE.

400 Pure Blood French Merino Rams,

On the Oristinha Ranch, six miles west of Hill's Ferry, Stanislaus County, Cal. All Rams delivered at the railroad, free of charge. Terms easy and prices liberal.

A. G. STONESEFER.

ENCOURAGE HOME INDUSTRY.

C. C. Burr & Co's



Mustard

50 per cent. Better than any Imported Mustard. Ask Your Grocer for it.

3v5-cow-hp.

No Agents are authorized to receive subscriptions for this paper at less than our advertised rates.

Commission Merchants.



STEELE, ELDER & CO.,

WHOLESALE

COMMISSION MERCHANTS

FOR THE SALE OF

California Dairy Produce,

GRAIN & QUICKSILVER,

204 Front Street, San Francisco.

AGENTS FOR THE

Missouri,

Kentucky,

Ida Clayton

and Yellow Jacket

Quicksilver Mines.

All orders for Supplies and Machinery for Mines promptly attended to.

RETORTS, POWDER and MINERS' TOOLS

Supplied at Importers' Prices

3v9-cow-hp

H. K. CUMMINGS.

1858.

H. H. RAISTON.

1875.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission House,

ESTABLISHED 1858.

No. 424 Battery street, southeast corner of Washington, San Francisco.

Our business being exclusively Commission, we have interests that will conflict with those of the producer. 4v23-1r

MOODY & FARISH,

Wool Commission Merchants,

No. 210 Davis Street, S. F.

Eureka Glycerine and Carbolic Sheep Dip; Sheep Shears; Wool Sacks and Twine constantly on hand at low prices.

Davis & Sutton, Commission Merchants, For California Fruits: also for the sale of Butter, Eggs, Cheese, Hops, Green and Dried Fruits, etc., 75 Warren street, New York. Refer to Anthony Halsey, Cashier, Tradesmen's National Bank, N. Y.; Ellwanger & Barry, Rochester, N. Y.; C. W. Road, Sacramento, Cal.; A. Lusk & Co., Pacific Fruit Market, San Francisco, Cal.

ALEX. BUSWELL,

BOOK BINDER, PAPER RULER

AND BLANK BOOK MANUFACTURER.

521 Clay Street, S. F.

Blank Books Ruled, Printed and Bound to Order

Miscellaneous Notices.

J. Y. WILSON. WM. FAULL. W. L. MERRY

WILSON, MERRY & CO.,

Provision Packers

And Dealers in

SALTED AND SMOKED MEATS,

Lard, Etc.

PROP'S BLACK POINT PACKING HOUSE.

We respectfully call the attention of Farmers and Stock Raisers to the fact that we are always prepared to purchase hogs, cattle and sheep at full market prices, for Cash, and shall be glad to answer promptly any inquiries addressed to us on the condition of the Market.

Office No. 223 Sacramento St., Near Front, San Francisco.

For Bleaching or Washing In Cold or Warm Water.

FALKINBURGH & CO'S

GRANGER SOAP

HAS NO EQUAL.

Don't fail to give it a trial, and be assured of a saving of money, time and labor. It speaks for itself. Warranted to accomplish more and do greater execution than any other soap. It is pressed, wrapped and perfumed.

ONCE USED, ALWAYS USED.

Sold by the principal Grocers throughout the country. Manufactured by

FALKINBURGH & CO.,

Oregon St., below Front, bet. Washington and Jackson, San Francisco, Cal. 4v9-10p

THE CELEBRATED

H. H. H.

HORSE MEDICINE

IS STILL AHEAD OF ALL OTHERS.

The Wholesale Druggists of San Francisco, give evidence of its appreciation throughout the State, by and rapidly increasing orders. We pledge it a cure for SPAVINS, WIND GALLS,

SWEENEY, SCRATCHES,

LAME AND STIFF JOINTS,

CALLONS, LUMPS,

AND ALL BLEMISHES,

SPRAINS OR BRUISES.

It is a household blessing and no family should be without a bottle in the house. For sale everywhere.

WILLIAMS & MOORE, Prop's.,

25v8-6m Stockton, Cal.

ARMES & DALLAM,

WHOLESALE DEALERS IN

WOOD AND WILLOW WARE

Baskets, Brushes and Twines,

Clothes Wringers,

Doty's Washing Machines,

AND

GENERAL HOUSE FURNISHING GOODS

And Manufacturers of

BROOMS, PAILS, TUBS, WASHBOARDS,

DASH,

CYLINDER,

THERMOMETER,

AND SQUARE BOX

CHURNS,

215 and 217 Sacramento St., San Francisco.



Woodland Poultry Yards.

W. J. PRATHER, - - Proprietor.

PRICE LIST:

Eggs PER DOZEN.	FOWLS PER TRIO.
Light and Dark Brahmas.....	\$5.00
Buff and Partridge Cochins.....	5.00
White Cochins.....	5.00
White Polandas.....	6.00
Houdans.....	4.00
S. and G. Spangled Hamburgs.....	6.00
White Leghorns.....	4.00
Brown Leghorns.....	6.00
Golden Seabright Bantams.....	5.00
Bronze Turkeys.....	8.00
Rouen Ducks.....	4.00
Black Cayuga Ducks.....	4.00
Aylesbury Ducks.....	4.00

A GOOD BARGAIN.

\$500 will buy a good, pre-emption claim of 160 acres in Monterey County, with a good Dwelling House that cost more than that amount, situated one-half a mile from the Los Angeles Stage Road, and about the same distance from the line of the Southern Pacific Railroad. Apply to

MRS. ROWLANDSON, On the Premises, San Antonio, Cal.

Nurserymen.

Established 1853.

Stocks for Nurserymen.

Plum Seedlings, Mirobolan, the best French stock, does not sucker..... \$50 per 1000
 Apple Seedlings..... 10 per 1000
 Pear Seedlings..... 10 per 1000
 Cherry Seedlings, Mazzard..... 12 per 1000
 Cherry Seedlings, Mahaleb..... 20 per 1000
 Walnut, English, 4 to 6 feet..... 15 per 100
 Cork Elm, best Elm, 4 to 6 feet..... 15 per 100
 Blue Gum or Eucalyptus, in variety..... 5 to 10 per 100
 Magnolia Grandiflora.....
 Magnolia Acuminata.....
 Magnolia Tripetala.....
 Golden Arborvitae.....
 Crataegus Arbutia.....
 Swedish Juniper.....
 Irish Juniper.....
 Heath-leaved Arborvitae.....
 Heath, Mediterranean.....
 Laurustinus, 6 to 12 in..... 2 50 per doz.
 Making the growth of Oranges and Lemons a specialty, I have imported from all sources the best known varieties, and now offer five thousand Grafted Trees properly worked and twice transplanted at \$18 per dozen. Grafted oranges by the 100 or 1,000 at prices on application. The amateur in want of large PALMS, large AURICARIAS, large CAMELIAS and large TREE FERNS, a good stock on hand; also the usual large stock of fruit and ornamental trees.

BERNARD S. FOX,
 San Jose, Cal.

THOS. MEHERIN, Agent, 516 Battery Street, San Francisco. 24v8-3

1852. 1875

ESTABLISHED IN 1852.

THE STOCKTON NURSERY

I have for sale for the ensuing season a Large and Well Grown Stock of All Varieties of

FRUIT TREES,
 SHADE,
 ORNAMENTAL
 and
 EVERGREEN TREES,
 GREENHOUSE PLANTS, AUSTRALIAN GUMS,
 SHRUBS, ROSES, BULBS, PALMS.

Send for Catalogue.

W. B. WEST, Stockton, Cal.

F. LUDEMANN, RUD. MICHELSEN.

PACIFIC NURSERY,

Baker St., Between Lombard and Chestnut,
 San Francisco, Cal.
 P. O. Box 475.

We offer this Season a Large and Complete Selection of
 Well Grown

EVERGREEN AND DECIDUOUS TREES AND
 SHRUBS, FLOWERING AND ORNAMENTAL PLANTS

At very reasonable Prices. Our Descriptive Catalogue of Evergreens and Deciduous Trees and Shrubs, and our Wholesale Trade List (For Dealers and Nurserymen) will be sent on application. All Orders promptly filled.
 F. LUDEMANN & CO.

KING'S NURSERY,

Twenty-fifth St., bet. Telegraph & Broadway
 OAKLAND, CAL.

Fruit, Shade and Evergreen Trees, Shrubs, Roses, Etc. Persons laying out new grounds would do well to call and examine our stock before purchasing elsewhere. A large stock of EUCALYPTUS, including BLUE GUM Pines and OYPRESS from six inches to twelve feet high. Acacias in Variety; Young Stock for Nurserymen; Pines and Cypress; Three Thousand Magnolia Grandiflora from six inches to five feet high; Camelia Japonica; Gardenia Cape Jessamine; Arancas in Variety, at Lowest Rates. Orders attended to.
 Address, M. KING, Nurseryman,
 3v9-3m Oakland, Cal.

Thos. A. Garey's

Semi-Tropical Nurseries.

LOS ANGELOS, CAL.

Forty varieties of the Citrus family of semi-tropical trees, including many rare and beautiful, as well as useful and profitable kinds.

Grafted and Budded Orange Trees a specialty. Trees packed to arrive in good order. Priced Catalogue sent free. Address me P. O. Box, 528, Los Angeles city, Cal.
 23v8-6m THOS. A. GAREY.

PEPPER'S NURSERIES.

(Established in 1858.) PETALUMA, CAL.

Green Houses and Tree Depot corner Washington and Liberty streets.

4 Green Houses. 3,000 feet of Glass. Fruit Trees a Specialty.

We offer for sale at lowest market rates a general assortment of Fruit and Shade trees, small Fruits, Vines etc. Evergreen trees and Shrubs in great variety. Green House, Conservatory and Bedding Plants, Roses, etc.

We are now ready, Nov. 1st, to fill orders for trees and plants. Catalogue and price list furnished on application.

Address, W. H. & G. B. PEPPER.

19v8-1f Petaluma, Sonoma Co., Cal.

BLOOMINGTON NURSERY, Bloomington, Ill.—F. KRONIG. Spring lists free, or the set of four catalogues post free for twenty cents.

SUPERIOR FRUIT TREES

TRUE TO NAME.

A fine collection of Evergreen and Deciduous Trees. Australian Gum Trees in variety, by the hundred or thousand. Monterey Cypress in quantities and sizes to suit all. Orange and Lemon Trees at reduced prices. A general variety of Nursery stock.

Also, Rhubarb and Asparagus roots.

T. CORLEY.

18v29-1f 315 Washington Street, S. F.

BELLEVUE NURSERY,

Telegraph Avenue, Oakland.

WE OFFER FOR SALE THE PRESENT SEASON A
 LARGE ASSORTMENT OF

Ornamental Trees and Shrubs

OF BEST TRIED VARIETIES.

Many fine specimens of good size can be seen on the grounds to select from. Choice collections (true to name) put up for those starting a garden.
 Street cars pass every fifteen minutes.

3v9-1f S. NOLAN.

PEACHES, APRICOTS AND PLUMS

are specialties at the Vacaville Nursery, Solano Co., Cal. Alexander's Early, Thurber and Peento in bud, 50 cents each; Beatrice, Louise, Rivers' Early, Lord Palmerston Lady Palmerston, Prince of Wales, Princess of Wales, Piquet's Late, Lady Parham, Italian Dwarf, Golden Dwarf, Bloodleaved and many other varieties of new Peaches in bud, at 25 cents each; Trees of Alexander's Early, \$1 each. Beatrice, Plowden, Freemason and a general assortment of the leading varieties, 25 cents each; Apricots, Plums, Apples, Peaches, Cherries, Almonds, Figs, Olives, Pomegranates and including most of the leading varieties of fruit for sale at low prices. D. E. Hough, Vacaville, Solano Co., Cal.

FOR SALE.

10,000 Acres Grazing Land—San Luis Obispo County. Title, U. S. Patent. Apply to
 MOODY & FARISH,
 210 Davis street.

Agricultural Articles.

KIMBALL CAR, CARRIAGE

—AND—

AGRICULTURAL IMPLEMENT

MANUFACTURING CO.,

Cor. Bryant and Fourth Sts., San Francisco

The CALIFORNIA TUBULAR IRON AND WOOD FRAME HARROW—two, four and six-horse Iron Harrows, \$60, \$70 and \$75. Wood Frame Harrow, \$10 less on each size than the Iron.

The Harrow has an easy seat for the Driver. The middle section rests on three wheels with wings hinged on each side.

By use of Levers the Driver in his seat can raise or lower the Harrow, regulating at will the depth of the teeth in the soil, and in the same manner fold or raise the wings from the ground so as to drive from the road to the field, saving the use of a wagon.

Our CALIFORNIA SCRAPER is also made for the ease of the Driver, enabling one person to ride, manage the team and do the work.

Is adapted for leveling and preparing the surface of the soil for irrigation. And for making roads, removing dirt from ditches, cleaning barn yards, sheep corals, etc.

The IMPROVED EAGLE HAY PRESS—Best in use on this Coast. Cheap, Economical, Powerful, and easily repaired.

Will press bales weighing from 250 to 325 pounds, using less rope than any other press.

Three men with a good team of horses will bale from 10 to 15 tons per day.

Adapted for baling wool, hides, cotton, rags or mosses. Price, \$250. Weight of press, 2,500 pounds. Please send for circulars.

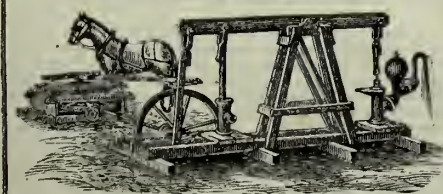
VINE AND FRUIT GROWERS,

TO RAISE LARGE CROPS

YOU MUST IRRIGATE.

To irrigate successfully, you must have the power that does not give out when the wind fails.

Laufkotter Bros. & Churchman's Horse-Power,



(PATENTED FEBRUARY 13TH, 1872.)

Never fails to supply more water than four or five Windmills, even supposing you had all the wind you want. It is also suitable for running light machinery, such as Barley Cracks, Corn Shellers, Fanning Mills, Grain Separators, or for Sawing Wood. They are never failing, cannot get out of order, easily worked, substantial, and always give satisfaction wherever they have been used. One horse can easily work two 8-inch pumps, with a continuous flow of water. Force Pumps, from 3,000 to 10,000 gallons per hour. WINDMILLS of all kinds manufactured to order. Wells Bored, Windmills and Horse-Powers set in any part of the State, and repairing of all kinds done.
 Manufactured and for sale by

LAUFKOTTER BROS.,

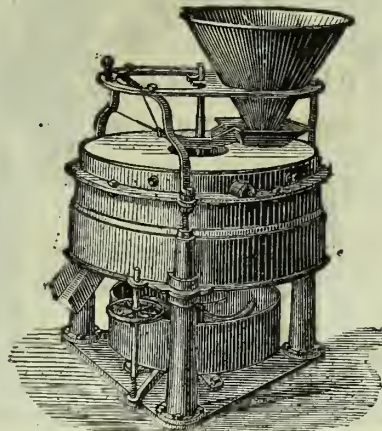
v7-2m-3m Cor. J and 10th Sts., Sacramento.

Allen's Planet Jr. Silver Medal
 HAND DRILLS AND WHEEL HOOKS. THREE NEW styles. They "sow like a charm," and hoe better, easier, and six times faster than the hand hoe. S. L. ALLEN & CO., Mfrs. 119 S. 4th St., Phila., Pa. Circulars free.
 A LIVE AGENT WANTED in every town.

J. WAGNER,

MANUFACTURER OF

FRENCH BURR MILL STONES AND PORTABLE MILLS.



General Mill Furnishing. Portable Mills specially adapted for Farmers' use. 113 and 115 Mission street, San Francisco. 13v7-3m-2am

MATTESSON & WILLIAMSON'S



Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knobs without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m MATTESSON & WILLIAMSON, Stockton, Cal.

CL. OREGO. S. O. BOWLEY.

CREGO & BOWLEY,

Importers and Manufacturers

—OF—

CARRIAGES and WAGONS,

No. 9 Merchant's Exchange.

CALIFORNIA STREET.....SAN FRANCISCO

Keep constantly on hand top and open Buggies, top and open Rockaways, Jump-seat Buggies, Track and Road Buggies, Skeleton Wagons, Basket Phaetons of the very latest styles and finest workmanship.

We would call particular attention to our fine stock of Light Road and Trotting Wagons, made to order by the following celebrated makers:

Charles S. Coffrey, Camden, New Jersey; Helfield & Jackson, Rahway, New Jersey, Gregg & Bow, Wilmington, Delaware; And the first-class makers, which we are prepared to sell on the most reasonable terms.

Also, a large assortment of single and double Harnesses, of the most celebrated makers: O. Graham, New York; J. R. Hill, Concord; Pittkin & Thomas, Philadelphia.

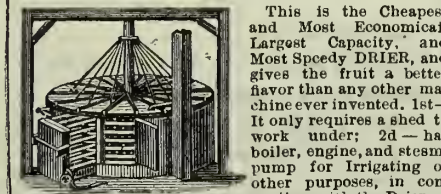
Also, a full assortment of Dress and Light Blankets, Fur and Lap Robes, Whips, Halters, Surcingles, etc., at wholesale and retail.

CREGO & BOWLEY,

No. 9 Merchants' Exchange, California street,
 24v5-3m San Francisco.

Plummer's California Fruit Drier.

PATENTED DECEMBER 29TH, 1874.



separately; 3d—the cost is one-half less than any other of the same capacity, and there is no danger of burning the fruit. A sample machine is in full operation at our factory, No. 31 BEALE ST. Address,

Send for Circulars. SPAULDING & BRO., San Francisco, Cal.

Farmers and Threshers

WISHING TO HAVE

Straw Burning Engines

For next season must engage them soon, as most of those now building are already sold. Threshing Engines for Repairs should be sent in now. A number of Second-hand Engines—taken in exchange for "Straw Burners"—for sale cheap. For particulars and prices, address:

H. W. RICE,
 23v8-3m Hayward, Alameda County.

PUMPS SLUTHOUR PUMPS

are sold 50 per cent. under any other in the market, considering the amount of water obtained for the power applied. They have now been fully tested for IRRIGATION, and entire satisfaction is guaranteed. Call and see them, or send for Circulars.

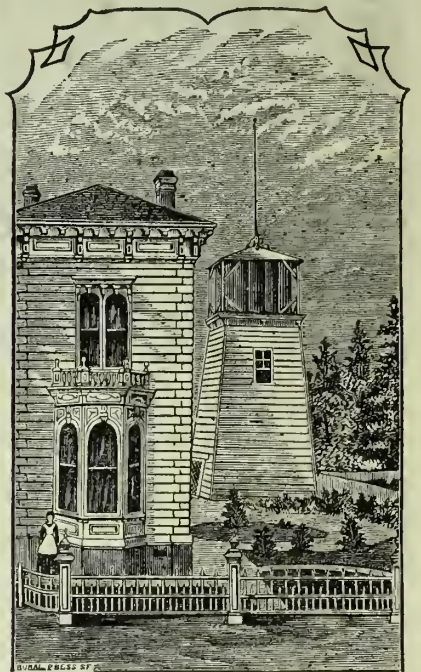
J. M. KEELER & CO., Agents,
 306 California Street, San Francisco.

ENRIGHT'S

Portable Strawburning Engines

Burns either Straw, Wood or Coal, Manufactured and sold by
 JOSEPH ENRIGHT,
 mr-13-3m Jose.

THE TURBINE.



Simplest, Cheapest,
 and Most Durable.

THE INVENTOR OF THE

DEXTER WINDMILL

Has made new and useful improvements in Windmills, and now feels confident of having the SIMPLEST, CHEAPEST, MOST DURABLE, and

ONLY PERMANENT WINDMILL
 IN THE WORLD.

SIMPLEST, because it is less complicated; CHEAPEST, because it never needs repair, standing on a firm foundation; MOST DURABLE, because it is all under cover, and has less rigging to get out of order; ONLY PERMANENT, because the only Windmill in the world that has never been injured by storms. Hundreds of people, who have thought the Dexter perfect, will be glad to observe the SUPERIORITY OF THE TURBINE over all predecessors. Although much improved, the price of mills remain the same as formerly. Persons who study their own interest will investigate the TURBINE before purchasing any other.
 Territory for sale outside of California, at reasonable rates and easy terms.

Mills Built to Order of the Best Material,
 and at the Shortest Notice.

For further information regarding Mills or Territory, address,

A. H. SOUTHWICK.

P. O. Box 1385, San Francisco; or
 P. O. Box 25, Oakland, Cal.

mr13-1am-bp

THE DR. BLY ARTIFICIAL LIMBS

166 Tehama Street,

COR. OF THIRD, BETWEEN HOWARD & FOLSOM

References to parties wearing these Limbs given when applied for.



THE "ANATOMICAL LEG" WITH A UNIVERSAL ankle motion; the above cut is its illustration. This artificial leg approaches so much nearer an imitation of the functions of nature than any other, that it stands without a rival among all the inventions in artificial legs, old or new. (The very latest announced new inventions duly considered.)

Address

MENZO SPRING,

166 Tehama street, S. F., Cal.

6v30-1am-bp-3m

Real Estate Agency,

900 Broadway, OAKLAND.

—BY—

T. B. BIGELOW, E. BIGELOW and
 WM. K. ROWELL.

Parties seeking homes or looking for property for investment in this rapidly-growing city, noted for its educational and many other advantages, are invited to call on the above agents, who have a large list of very choice improved and unimproved property for sale.

They also deal in FARMING AND GRAZING LANDS, and invite correspondence from any who may wish to buy or sell this kind of property.

Apr3-1am-bp

1874. GUIDE AND CATALOGUE 1875.
FREE.

To persons contemplating purchasing I will send my ILLUSTRATED, DESCRIPTIVE CATALOGUE and GUIDE to the VEGETABLE and FLOWER GARDEN WITHOUT CHARGE. It contains the most extensive and valuable list of



Flowering Bulbs, Roots and Plants, Semi-Tropical Trees, Ornamental Shrubs, Fruit and Shade Trees, etc., ever offered in this market. It tells how to successfully grow the Australian Blue Gum, the Monterey Cypress, Pine, etc., and the proper method of Cultivating Tobacco on this Coast.

My stock of seeds is in part my own raising and in part direct importations from the best European and Eastern growers, and is unsurpassed in all respects by that offered by any other establishment. 100,000 Australian Blue Gums and Monterey Cypress in boxes at from \$30 to \$50 per 1,000, raised at my own Nursery at San Rafael.

R. J. TRUMBULL,
Grower, Importer, Wholesale and Retail Dealer in
Seeds, Shrubs, Trees, etc.
2078-6m-16p 427 Sansome street, S. F.

Grangers' Bank of California.

(Incorporated April 27th, 1874)

Offices, 415 California street, San Francisco.

CAPITAL authorized, \$5,000,000, in 50,000 shares of \$100 each. Subscribed, \$2,568,700 (Number of shareholders, 1,571). Paid up, \$481,200.

DIRECTOR—J. V. WEBSTER, President; CALVIN J. CHESNEY, Vice-President; C. S. ADRIOTT, J. P. CHESMAN, G. W. COLBY, J. H. HILL, J. LEWELLYN, THOS. MCCONNELL, J. C. MERRYFIELD, A. F. WILCOX, F. J. WOODWARD.

OFFICERS—Managing Director, CALVIN J. CHESNEY; Cashier, ALEXANDER WATSON; Secretary, FRANK J. CHESNEY.

The bank was opened on the 1st of August, 1874, for the purpose of affording additional banking facilities to the producers of the State, and for the transaction of ordinary banking business.

CURRENT ACCOUNTS are open and conducted in the usual way, and interest allowed on the minimum monthly balance at the rate of three per cent. per annum.

CERTIFICATES OF DEPOSIT are issued in sums of \$50 and upwards, payable on 30 days' notice of withdrawal, bearing interest at rates varying with the current rate of discount.

TERM DEPOSITS are received in gold, silver or currency, and interest allowed as follows, namely: Three months, six per cent. per annum; six months, seven per cent. per annum; one year, eight per cent. per annum.

COLLECTIONS are made throughout the State on the most favorable terms.

DISCOUNTS—The bank advances on real estate in the different counties, on merchandise and grain in warehouses, etc., with a fair margin, charging a uniform rate of one per cent. per month.

ALEXANDER WATSON, Cashier.

M. FALLON,

Cor. Seventh & Oak sts.,

OAKLAND, CAL.

Light & Dark Brahmas,
Buff, White and Partridge Cochins,
Spangled, Golden and Silver Polish,
Spangled, Golden and Silver Hamburgs,
Pure White-faced Black Spanish,
White and Brown Leghorns,
Silver Grey Dorkings,
Houdans, Silkies, Black-Red Games,
Bronze Turkeys, Rouen and Aylesbury Ducks.

All from Premium Stock of Best Strains.
Fowls of above varieties for sale; also, Chicks in their season. Eggs packed with care and sent in rotation as orders are received.

Bronze Turkeys

12 Gobblers from 8 to 20 months old, 22 to 40 lbs each, for sale now.
Hens 14 to 18 lbs.



Emden Geese

40 to 50 pounds per pair at maturity.

BLACK CAYUGA DUCKS,

Games, Brahmas, Leghorns, Houdans, Bantams, etc.

Eggs, fresh, pure, true to name; well-packed so as to hatch after arrival.

For Illustrated Circular and Price-List, address

M. EYRE, Napa, Cal.

FERRETS.

RABBITS.

PIGEONS.

Please state where you saw this advertisement.

SEEDS.

PLANTS.

OF EVERY VARIETY.

Fresh and reliable, such as experience and care only can select.

GRASS AND CLOVER SEEDS, KENTUCKY BLUE GRASS, HUNGARIAN, OROHARD, ITALIAN RYE, RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL, CHOICE CALIFORNIA ALFALFA, WHITE CLOVER, RED CLOVER, Etc.

Also, RAME, JUTE AND TOBACCO SEEDS; together with a fine and complete collection of TREE SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGANTEA, PINUS INSIGNIS, Etc.

For Sale, wholesale or retail, by

B. F. WELLINGTON,

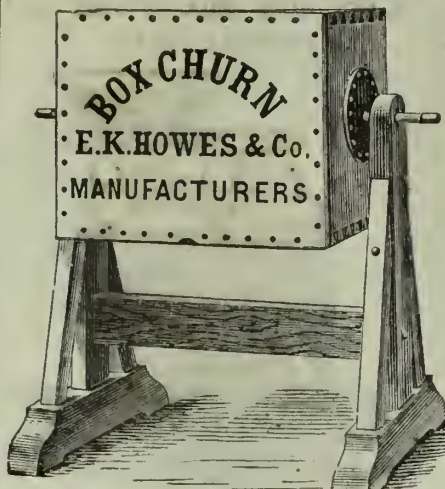
(Successor to E. E. Moore).

425 Washington St., San Francisco.

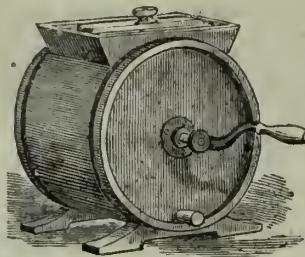
22v7-ly

E. K. HOWES & CO.,

NOS. 118, 120 and 122 FRONT ST., SAN FRANCISCO.



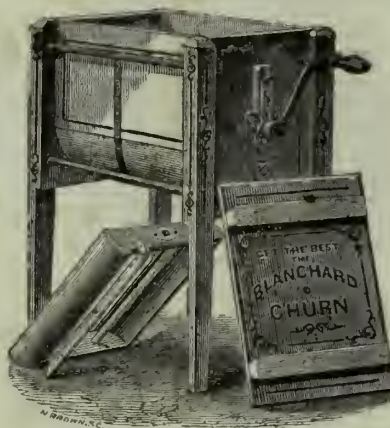
BOX CHURN.



CYLINDER CHURN AND DASHER



THERMOMETER CHURN.



BLANCHARD CHURN.

SOLE MANUFACTURERS ON THIS COAST OF

All Descriptions of Churns, Butter Workers & Moulds, Butter Tubs, (35, 50 & 60 Pounds), Butter Kegs—Plain and Gal Hoops—Wholesale & Retail.

Send for Price List and Illustrated Catalogue. Single Churns sent by Express, C. O. D., if desired.
9v9-cow-3m-16p

CALIFORNIA WINE COOPERAGE AND MILL CO.

30, 32 & 34 Spear St.

M. FULDA & SONS

Proprietors.

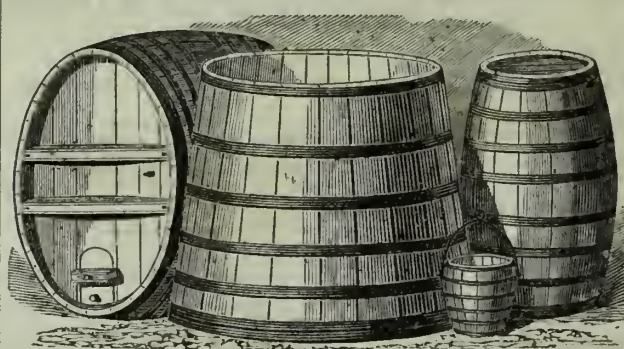
Manufacturers of

WATER TANKS SHIP
TANKS, MINING
WORK.

WINE, BEER AND LIQUOR
CASKS, TANKS, ETC.

Cooperage and Tanks, Steamed
and Dried Before or After
Manufacture at Reasonable Rates.

Sawing, Planing, etc.
at Short Notice. cowbp



J. M. NEVILLE.

G. H. BRYANT

NEVILLE & CO'S FACTORY

113 Clay and 114 Commercial Sts.,

SAN FRANCISCO.

BAGS of All Kinds,

TENTS, All Sizes and Descriptions.

HOSE for Hydraulic Use.

CANVAS, All Numbers.

TWINE for Sewing, Etc.

GREAT EASTERN AND WESTERN

Horse and Mule Market,

Cor. Fifth & Bryant Streets, San Francisco.

A choice stock of Carriage, Draft and Farm Horses on hand, and constantly being received from the East. All classes of Horses and Mules purchased and sold.

WASHBURN & RANDALL, Props

FOR SALE

In the Riverside, New England and Santa Ana Counties, in the valley of the Santa Ana River, San Bernardino county, California, twenty thousand (20,000) acres of clean, rich, level, valley land, with an abundance of water for irrigation. There is no better land in the State for the orange and all other semi-tropical fruits, and no finer climate in the world. Inquire of W. T. SAYWARD, 420 Montgomery street, San Francisco; S. C. EVANS, Fort Wayne, Indiana; C. I. HUTCHINSON, 314 California street, San Francisco; L. UPSON, General Agent, Riverside, San Bernardino county, Cal.

Hooper's South End Grain Warehouse

Japan and Townsend Streets.

SAN FRANCISCO, July, 1874.
I beg to inform you I have leased the above first-class Fire-Proof Brick Warehouse, now being erected by Geo. F. Hooper, Esq., and will be ready to receive storage on the 1st of August. This warehouse offers superior inducements to parties desiring to store grain and flour, as it is situated on the Water Front, and on the line of the C. P. R. R. and S. P. R. R. It is well ventilated, rat proof, and combines all the modern advantages and improvements. Yours respectfully, JOHN JENNINGS.
Advances and insurance effected at the lowest rate. Storage taken at lowest current rates. 4v8-ft

EMPLOYMENT.

I want 1,000 agents to canvass for the COMPLETE HERBALIST, and THE GROWING WORLD. I will give such terms and furnish such advertising facilities that no man need make less than \$200 per month and all expenses—no matter whether he ever canvassed before or not. Address Dr. O. PHELPS BROWN, No 21 Grand street, Jersey City, N. J., and full particulars will be sent by return mail.

CHEESE VAT FOR SALE.

One of the Celebrated Ralf's Cheese Vats,—five hundred gallons. Hoops, etc., new, and in perfect order. At a bargain. Enquire at the Carpet and Furniture Warehouse of

JOHN C. BELL.

LOOK!

ALBERT E. BURBANK, Importer and Breeder of Fancy Fowls, Pigeons, Rabbits, etc. Also Eggs for hatching from the finest of imported stock. Eggs and Fowls at reduced prices. Send for Price List.



ALBERT E. BURBANK,
1v8-3m 43 & 44 Cal. Market S.F

NEW CROP OF
BLUE GUM SEED.

GRASS AND CLOVER SEEDS.

FLOWER AND VEGETABLE SEEDS.

TREE AND FRUIT SEEDS.

OF EVERY DESIRABLE VARIETY AND OF THE BEST QUALITY; OFFERED AT WHOLE-SALE OR RETAIL, BY

GEO. F. SILVESTER,
SEEDSMAN,

No. 317 Washington Street,

24v8-tf

SAN FRANCISCO

San Francisco Land Agency,

E. L. SMITH & CO., Managers.

A Medium for the Sale of Every Description of Real Estate.

Office, No. 331 Kearny Street.

WANTED—DESIRABLE LANDS AND FARMS in every county of the Pacific Coast, at SAN FRANCISCO LAND AGENCY, No. 331 Kearny street.

WANTED—SHEEP AND SHEEP RANGES For Sale at SAN FRANCISCO LAND AGENCY, No. 331 Kearny street.

EMIGRANTS INTENDING TO SETTLE IN Oregon or Washington Territory furnished with full information, free of charge, at SAN FRANCISCO LAND AGENCY, No. 331 Kearny street.

NOT WANTED—WORTHLESS LANDS, BAD titles or exaggerated descriptions, at SAN FRANCISCO LAND AGENCY, No. 331 Kearny street. E. L. SMITH & CO., Managers.

Improve Your Poultry,

IT COSTS NO MORE TO KEEP GOOD FOWLS THAN POOR ONES!

OAKLAND POULTRY YARDS,

Cor. 16th and Castro streets, Oakland, Cal.

Eggs for Hatching

GUARANTEED FRESH,

True to Name,

And to carry safely to any part of the country.



BRAHMAS, LIGHT AND DARK LEGHORNS, WHITE AND BROWN HOUDANS, COCHINS, BUFF, BLACK AND PARTRIDGE POLISH, GOLD AND SILVER, HAMBURG GOLD, EN, SILVER AND BLACK GAMES, AYLESBURY AND ROUEN DUCKS, DORKINGS AND BANTAMS.

BRONZE TURKEYS, the Largest in America.

Send for Circular to

GEO. B. BAYLEY,

16p

Box 659, San Francisco.

HEALD'S Business College.

No. 24 Post Street, San Francisco.

The largest and best Business College in America. Its teachers are competent and experienced. Its pupils are from the best class of young men in the State. It is under the very best discipline. Its scholarships are good in the THIRTY-SIX Bryant & Stratton Colleges. It employs four of the best penmen in the State. It has the largest rooms, the largest attendance, and the most complete system of business training of any commercial school in the country.

For information, call at the office, 24 Post street, or address, for circulars,

E. P. HEALD,

President Business College, San Francisco

PACIFIC POTTERY, SACRAMENTO.

MANUFACTURERS OF

Sewer Pipe, Drain Tile,

PLAIN FLOWER POTS,

FIRE BRICK.

JOHN B. OWENS, Agent,

No. 30 California Street, S. F.

Continued from Page 288.

of red and yellow deal, and is largely used for many purposes.

The white pine, *Pinus strobus*, called also Weymouth pine, is a native of the Northern United States. In Maine, Vermont, New Hampshire, New York, Michigan, Wisconsin and Minnesota, vast acres were formerly covered by this pine. It is a tall, slender tree, often in the dense forests attaining a height of two hundred feet, with a diameter of but four to five feet. Its wood is for the Northern States what the Scotch pine is for the countries of Europe. It is white, easily worked, reasonably strong and durable, not given to warping or checking, and besides, it takes paint well, all of which qualities at once commend it to the builder and manufacturer.

Its Uses are Almost Numberless.

Yellow pine, *Pinus australis*, is found growing in the Southern Atlantic States, especially in Georgia and Florida, where it forms extensive forests. This is the pine of the South, replacing the white pine of the North. It is not as large a tree as its Northern relative, attaining an average height of less than one hundred feet. Its wood is yellowish in color, dense, heavy and gummy. When dry it becomes very hard, and is then quite difficult to work. Although used in the South for almost all kinds of work, it is especially fitted for use as flooring, and for this purpose it is largely brought to the Northern markets. It is even used somewhat in California for this purpose; a large cargo was landed a short time ago for the Palace Hotel, in the city.

The sugar pine, *Pinus Lambertiana*, of California, may be said to be the Western representative of the foregoing trees. It is botanically a very near relative of the white pine of the East, which it resembles very closely in everything excepting size, being a giant as compared with its Eastern congener. Place two boards side by side, the one from the white pine, the other from the sugar pine, and it would be a most difficult thing to tell which was which. If California had no other conifers, sugar pine would be used for as many purposes as the white pine, but you are so fortunate as to have three or four others having different qualities, so that the use of sugar pine is somewhat restricted. On account of its lightness, firmness, strength, ease of working, freedom from warping, and readiness to take paint, it is largely used for doors, sashes and blinds.

The redwood tree, *Sequoia sempervirens*, is the great lumber producing tree of California. It is not a pine, but is more nearly a cypress, having cones and leaves much more nearly resembling the latter than the former. It is peculiar to this coast, and even here it appears restricted to certain favorable localities. Dr. Gray considers the redwoods (including the giant trees, which are near relatives), as the remnants, so to speak, of

A Former Gigantic Race of Trees,

Which extended throughout the northern hemisphere, climatic and other changes having destroyed them long ago in all countries but California. Beyond the Sierras here and there we find the fossil remains of gigantic trees; and we can trace them away Eastward, even into Northern Asia. Here alone in favored California has the climate remained stable enough to permit their continuance to the present. But even here there has been some change; for now the redwoods are somewhat restricted to certain districts, while we know from fossil and other remains that they once covered portions of the State where now none are to be found. On the tops of the Coast Range mountains are roots and pieces of stumps of ancient redwood forests. They represent a dying race, which specially favoring conditions have given a little longer lease on life.

The Douglas spruce, *Abies Douglasii*, is a native of the Rocky Mountains, Sierra and California regions. A beautiful tree, it was long ago taken to Europe as an ornamental tree for the parks and gardens. Here it is chiefly interesting on account of its timber, which is much sought after by railroad men. Its durability when in the ground makes it very valuable for ties and posts, for which it is much used. It is also brought into the market as boards and planks under the name of spruce lumber.

Oregon pine and Oregon fir are names applied to a very valuable timber brought to our market from Oregon and Northern California. The name pine is not properly applicable to this tree, as it belongs to the botanical genus, *Abies*, the spruces and firs. The wood is firm, light, very strong, elastic and durable. It is used for many purposes, the most important of which is ship building. Ships have been made of this timber throughout, and upon trial have been found as strong as if made from the oaks and other hard woods.

"Soft Wood Ships,"

As they are called on account of the lightness of their materials, sink less into the water under a given weight of cargo, than do those made of the heavier woods.

Masts and spars of this timber after bending under heavy winds for days or weeks, as soon as released from the strain straighten up again as before.

There are many other soft wood trees of this region which are now somewhat used, and which no doubt could be utilized if we knew more as to their strength, durability and other qualities. Among these are several pines, yellow pine, *P. ponderosa*; nut pine, *P. sabiniana*; Monterey pine, *P. insignis*. Several additional

ones belong to the genus *Abies*—the spruces and firs might be added to the list—as also the giant arbor vitae of Oregon, *Thuja*; the western larch, *Larix*; western red cedar, *Juniperus*; California white cedar, *Libocedrus*; and some others. Of other soft wood trees than the conifers, California has none worth mentioning, and with the exception of the tulip tree, *Liriodendron*, of the Eastern United States, none of them are greatly to be desired. With so many valuable soft woods at her command, California has but little need of more, and yet it cannot be denied that

No Tree on this Coast

Furnishes a timber which can exactly replace the wood of the tulip tree, the whitewood or yellow poplar of the Atlantic States.

Among the hard wood trees the oaks occupy the same relative position as do the pines among the soft wooded ones.

British oak, *Quercus sessiliflora* and *Q. pedunculata*, is known wherever British ships have gone. This tough, heavy, durable wood has always been a favorite with British ship builders, and the superiority of the British navy, no

ship building. It has, however, been but little used.

The walnut of Europe, *Juglans regia*, is a tree of considerable value in the countries where it grows. In the United States, westward to the Missouri river, it is replaced by the black walnut, *Juglans nigra*, a tree of a thick, heavy growth, producing a valuable dark colored wood, much used for furniture and inside work in houses. Its near relation, the butternut or white walnut, *J. cinerea*, is a smaller tree, producing a lighter colored wood, valuable for the same purposes as the former.

In California a species nearly allied to the black walnut is found rather sparingly. Its wood is valuable, and is used to some extent as a substitute for the former species. It would be well to

Plant Freely,

Not only of the native species, but also of the European, which makes a rapid growth here, and of the black walnut, which, though not a rapid grower, can be made to do well.

The hickory is one of the finest of the trees of the Northern United States. In its bearing

American white ash, a tall, majestic tree, producing a white, light, tough and durable timber. On account of these desirable qualities it is largely used in the manufacture of agricultural implements. For very many purposes it is preferable to hickory; as it is not so heavy while it is very nearly as strong, and possesses, besides, the additional advantage that it is made free from the work of the powder posting insects. In Western California and in Oregon a small sized ash occurs in sufficient abundance to be used in manufacturing somewhat.

The Maples, of which there are many species, are divided into two groups—the hard maples, and the soft maples, referring to the character of the wood. The hard maple, or as it is also known as the sugar maple, of the Eastern States, occurs as far west as the Missouri river. In favorable localities it becomes a large tree, one hundred feet in height, with a diameter of from two to three or more feet. When dry its wood is hard, and capable of receiving a high polish. The soft maples, of which there are several Eastern species, have a much softer and less durable wood. It is, when kept dry, valuable for furniture, and is largely used for that purpose. In Northern California and Oregon a maple occurs which may be considered as the western representative of the soft maple of the East. It is used considerably.

There are three timber trees peculiar to California which are well worth mentioning; they are the

California Laurel, the Madrona and the Manzanita.

The California laurel (*Oreodaphne Californica*) is peculiar to this slope of the continent. Its wood is valuable, and no doubt when we have learned more fully how to use it, it will be of more value still. The Madrona furnishes a hard, heavy, light colored wood, which is, or can be made to be quite valuable. The Manzanita grows usually as a shrub from which it is difficult to get large pieces of timber. Occasionally, however, it is of sufficient size so that good blocks several feet long and from four to six inches thick may be secured. This wood is very beautiful, much resembling mahogany, but being much heavier and harder. It can be made into many small articles of use and ornament and no doubt by proper care and culture it might be grown into a much larger tree.

Among the important woods of this coast not belonging to California, are those recently brought into use from Mexico. The most important one is what is known as *Prima vera* or white mahogany, a white wood resembling in many of its characters the hickory of the East. It is used extensively in the manufacture of fine furniture, and also for street cars, as well as for many other purposes.

Summing up the whole matter we find that California is better supplied with coniferous soft woods than perhaps any other country on the globe, having no less than twelve which are more or less valuable. It has, however, but few soft woods aside from the conifers which are of any value. It is decidedly wanting in valuable hard wood trees.

In order that the native woods of this coast may be of greatest use there is great need of

Thorough and Exhaustive Tests,

As to their strength, their durability and their working qualities. There is no doubt in my mind but that when they are known we shall find that many of the trees which we now pass by as valueless are in reality very useful. I am glad to be able to announce that such tests as those of which I have spoken will be made this year at the university. Only a few days ago the arrangements were completed for beginning the work. In this work I trust you are all interested, and I further trust that you will give it a hearty support as a worthy work of a great and growing university.

I have thus thrown hastily together a few of the facts connected with this subject in order to call your attention to the sources of our timber supply—the kinds of woods we have, those we lack, and the need of a further development, so to speak, of our own woods.

Trusting that the matter presented has not been altogether devoid of interest, that it may receive further thought from you, that you may help to develop this portion of California's resources, thereby adding to its wealth and its material prosperity, thanking you for your attention and patience, I bid you good night.

Late Summer Apple.

The accompanying fruit illustration represents the late summer apple, "Duchess of Oldenburg." Its general merits are well regarded and its characteristics are described as follows:

Fruit. Size—medium to large. Form—roundish, flattened. Skin—smooth with a light bluish bloom. Color—light and deep rich red, washed, striped and splashed on a yellow ground. Stem—short. Cavity—acuminate. Basin—deep, wide, even, regular. Calyx—large, nearly closed. Flesh—slightly yellowish white, sharp sub-acid, juicy, and when well ripened, pretty rich. Season in California, August, and often keeping into September.

Tree.—An upright, vigorous, hardy and healthy grower, with dark-colored shoots and broad, dark green, coarsely serrated leaves. A profuse bearer, apparently adapting itself to all soils and situations, and yielding a fruit of great value for marketing and for cooking purposes. It is of Russian origin.

The opening of the Palace Hotel, Napa, is announced for Friday evening, April 30th.



DUCHESS OF OLDENBURG.

doubt, is largely due to the fact that these oaks have always been easily obtained. So important have they been considered, that long ago great plantations of them were made and carefully guarded. Hundreds of the British vessels now floating were made from the oaks which grew from the acorns which

Careful, Thoughtful Hands Planted,

Perhaps two centuries ago.

The live oak, *Quercus virens*, of the Southern Atlantic States, is for American shipping what British oak is for England. Unfortunately for us, as a native it grows somewhat south of the points where the most of our ships are built, and so it has never been used as much as it might have been, had it been a native of the whole country. California cannot as yet boast of an oak equal to either of the foregoing, possibly because we hardly yet know anything about the native species.

Our common evergreen oak, *Quercus agrifolia*, so common in and about Oakland, thus far has been considered useless as a timber tree. Possibly by proper preparation it may yet be turned to some use.

Tan-bark oak, *Quercus densiflora*, growing in Central California, is now coming into use for the manufacture of wagons and agricultural implements. Under proper preparation it becomes hard, tough and durable.

Canon oak, *Quercus chrysolepis*, found in the ravines and canons of the mountain ranges, is tough and durable, and is said to be of value in

it is not very unlike the pines; its straight stem is surmounted by a more or less conical top, often at a very great height from the ground. Its wood is white, hard, heavy and tough, and when properly protected quite durable. As it is subject to the attacks of certain

Wood Eating Insects,

It is not much used in large or heavy pieces, its greatest value being found when employed in sticks or pieces but little more than an inch in diameter. For axles and spokes of wagons and carriages, for handles for tools, and for the smaller parts of agricultural implements it is valuable. California has no native hickory, hence it is found to be quite difficult to grow it here. Possibly in the foot hills it might be grown. It is an experiment worth trying, to make a plantation of hickories in some of the eastern counties, for the State has no wood whatever which can exactly replace it.

The elms are found in great abundance throughout most of the States east of the great plains. Some of the species are quite valuable, though the liability to warp is a serious objection. Europe has a fine elm, the Eastern States have two valuable ones, but California has none. Some of the elms are found to grow quite well in some localities in this State, and no doubt could be grown in sufficient quantities to meet all the demands for elm lumber.

The Ash.

Here again we find, first a species in Europe, which is replaced in the Eastern States by the

Tenth Industrial Exhibition of the Mechanics' Institute, S. F., 1875.

PRELIMINARY ANNOUNCEMENT.

The Board of Managers of the Tenth Industrial Exhibition have the pleasure of announcing that an Industrial Exhibition will be held, under the auspices of the Mechanics' Institute, in the city of San Francisco, to be opened on Tuesday, the 17th of August, 1875, at 11 A. M., and to continue open at least one month thereafter.

In making this public announcement, the Managers desire that those who intend to exhibit should send in their applications for space as early as possible, so as to avoid the necessity of excluding, as has been the case heretofore, the many desirable exhibitors who are unusually tardy in making applications.

The forthcoming Industrial Exhibition will be the tenth held under the auspices of the Mechanics' Institute, and the Managers are justified in saying that it will undoubtedly surpass in completeness of detail and general arrangement any heretofore held.

The last Exhibition was attended by 700,000 visitors; attracted hither by the fame of these Industrial Fairs, and for the purpose of investigation, business and pleasure.

All the available exhibiting space was applied for several weeks before the day of opening, and the Managers were compelled to deny admission to many desirable exhibitors.

The Board of Managers desire particularly that the arts, the industries and natural products of the country should be well represented at the forthcoming exhibition, and no pains will be spared to make these classes of exhibits a special feature there.

The Exhibition will be held in the building constructed for that purpose in 1874, but it will be materially enlarged and improved in many details for the Exhibition of 1875.

The space under roof will exceed 180,000 square feet, or about four and a half acres, exclusive of the Horticultural Garden, which will occupy 24,500 square feet additional.

The location of the Exhibition Building, on Eighth street, between Market and Mission streets, cannot be surpassed for convenience and accessibility, and can be approached from every part of the city by means of the various lines of street railroads, any of which bring visitors within two blocks of the entrance gate.

The utmost care has been exercised in providing for ample ventilation and light, and during the evening the building is brilliantly illuminated by over 5,000 gas lights.

The promenade avenues are broad, and 2,000 seats are provided for the comfort of visitors, for whose convenience there is also an excellent restaurant, under the management of a first-class restaurateur.

Every afternoon and evening the best orchestra the city can supply will discourse excellent music under the direction of an accomplished leader.

The building is always well attended by visitors, and during the last Exhibition over 29,000 were daily admitted for a number of days, and under no similar circumstances can the manufacturer, the mechanic, the inventor, producer or business man so advantageously place himself before the people of the Pacific Coast.

Persons desiring to obtain information, or to make application for space, should address "Managers of Tenth Industrial Exhibition, San Francisco, California," or make personal application as below.

It is expected that the various transportation companies will convey goods intended in good faith for exhibition, at half the usual rates.

Exhibitors from abroad, if they have no agent or consignee in San Francisco, can consign goods and mark the same to the "Manager of the Tenth Industrial Exhibition, 17 Post street, San Francisco," and they will be stored, if they arrive before the day of opening, free of expense; but no charges or expenses for freight or forwarding, etc., will be paid by the Managers.

In order to secure space, application should be made on or before July 20th, 1875.

Blankets will be furnished on application.

Premiums will be awarded as follows, viz: 16 gold medals, 50 silver medals, Society Diplomas, Certificates of Merit and Special Premiums, as the Board may determine.

Blankets for space can be obtained at the Mechanics' Institute on application by letter or otherwise; and any information will be given, by applying to any member of the Board of Managers, as below:

A. S. HALLIDAY.....113 Pine street.
JAMES C. PATRICK.....122 Battery street.
HENRY L. DAVIS.....421 California street.
D. E. HAYES.....213 Fremont street.
A. B. WELLS.....Mechanics' Mill.
P. B. CORNWALL.....Cor. Spear & Harrison streets.
CHAS. ELLIOT.....516 California street.
GEORGE SPAULDING.....414 Clay street.
RICHARD SAVAGE.....139 Fremont street.
W. P. SPOUT.....604 Merchant street.
J. H. MACDONALD.....217 Spear street.
J. P. CURTIS.....320 Jackson street.
R. B. WOODWARD.....Woodward's Gardens.
JAMES SPIERS.....311 Howard street.

To the Librarian of the Mechanics' Institute, or to J. H. CULVER, Secretary, 27 Post street, San Francisco.

Rules and Regulations of the Tenth Industrial Exhibition, Mechanics' Institute, S. F., 1875.

1. The Pavilion will be open for the reception of goods on Monday, August 2d. The exhibition will be open to the public on Tuesday, August 17th, at 11 o'clock A. M.

2. Applications for space must be made on or before July 20th, stating character of exhibit, amount and kind of space required—wall, table or floor. And, if cases, state length, width and height of case. Blankets will be furnished for this purpose, and a clerk will be in attendance at the Library of the Mechanics' Institute, every day from 12 to 1, and 7 to 10 P. M.

3. All persons presenting articles for exhibition must have them registered by the Receiving Clerk, who will give a receipt for the same, which receipt must be presented when the articles are withdrawn, at the close of the Exhibition.

4. Judges will be appointed by the Board of Managers, immediately upon the opening of the Exhibition, to examine all articles presented, in accordance with Article III, and the Managers will award premiums on such articles as the judges shall declare are worthy, which will be delivered as soon as they can be prepared. Due notice will be given of the announcement of premiums.

5. The mornings of each day, until 10 o'clock, will be appropriated to the Judges, and no visitors will be admitted during the time thus appropriated, except at the special request of the Judges, or by permission of the Managers.

6. Articles intended for sale may be labeled accordingly, but cannot be removed until the close of the Exhibition, except by written permission of the Managers.

7. Steam power will be provided, so that machinery of all kinds may be seen in actual operation, and every facility possible will be given to exhibit working machinery to the best advantage.

8. The name of every article must be attached by the exhibitor to it.

9. Articles intended for exhibition must be entered

and placed on exhibition on or before Saturday, August 21st.

10. Perishable articles will be received, or may be removed at any time during the exhibition, with the consent of the Managers.

11. The most effectual means will be taken, through the agency of the Police and otherwise, to guard and protect the property on exhibition; and it will be the purpose of the managers that all articles shall be returned to the owners without loss or injury. Still, all articles deposited will be at the risk of the owners.

12. In case of any misunderstanding, application may be made to the Managers, who will at all times be in attendance.

13. The Managers are desirous that articles should be presented early. Those from abroad, intended for exhibition, should be properly packed, and if not consigned to exhibitor's agent, must be marked, "MANAGERS OF TENTH INDUSTRIAL EXHIBITION, SAN FRANCISCO, CAL." All articles thus received, arriving too early, will be stored free of cost to the exhibitor, and the Managers will have them duly placed in proper position for exhibition. No freight charges will be paid by the Managers; but exhibitors are notified that arrangements are being made with various transportation companies to repay freight charges on evidence of goods exhibited.

Information will be furnished by addressing MANAGERS OF TENTH INDUSTRIAL EXHIBITION, SAN FRANCISCO, CAL.

California Farmers Mutual Fire Insurance Association.

Office, 6 Leidesdorff St., - San Francisco.

Directors:

A. WOLF, A. W. THOMPSON, I. C. STEELE,
I. G. GARDNER, J. C. MERRYFIELD, J. D. BLANCHARD,
G. P. KELLOGG, Treas.

Finance Committee:

I. G. GARDNER, J. C. MERRYFIELD, A. W. THOMPSON

Trustees:

J. M. HAMMILLON, Lake Co. I. C. STEELE, San Mateo Co.
J. C. MERRYFIELD, Solano Co. A. B. NALLEY, Sonoma Co.
G. W. COLEY, Butte Co. O. S. ABBOTT, Santa Barbara Co.
H. B. JOLLEY, Merced Co. A. W. THOMPSON, Sonoma Co.
A. WOLF, San Joaquin Co. E. W. STEELE, San Obispo Co.
J. D. BLANCHARD, Pres't. W. H. BAXTER, Sec'y.

This association is organized for the purpose of affording the farmers of this State the means of safely insuring against loss by fire, at actual cost of insurance, without being connected with city risks. \$822-11

The National Gold Medal

WAS AWARDED TO

BRADLEY & RULOFSON

FOR THE

BEST PHOTOGRAPHS

IN THE

UNITED STATES,

AND THE

VIENNA MEDAL

FOR THE BEST IN THE WORLD.

No. 429 Montgomery Street,

San Francisco, Cal.



Rowlands' Macassar Oil.

Preserves, strengthens, and beautifies the human hair; makes it grow thickly on bald places, and eradicates scurf and dandruff; has been in use all over the world for the last seventy-five years. ROWLANDS' ESSENCE OF TYRE changes red or grey hair to a permanent brown or black. Sold everywhere by all druggists, chemists, and patent medicine dealers. Ask for Rowlands' articles, of 20, Hatton Garden, London, and avoid imitations.

LAND PLASTER.

(Sulphate of Lime.)

This fertilizer is especially well adapted to California lands and climate, and is destined to be used to immense advantage.

PRICES GREATLY REDUCED.

In bulk, \$10 per ton; in barrels or bags, \$12.50.

Golden Gate Plaster Mills.

LUCAS GESNER & CO.,

215 and 217 MAIN STREET, SAN FRANCISCO.

CARD.

EXCELSIOR FORCE PUMP greatly improved. COPPER LINED BRASS VALVES AND VALVE SEATS every way equal to a BRASS PUMP. PRICES reduced. Send for Circular. BRITAN, HOLBROOK & CO., Agents.

SUPPORT HOME INDUSTRY.

WHEATEN STARCH,

MANUFACTURED BY

J. JOHNSTON.

SAN JOSE, - - - CALIFORNIA.

This starch is made from the best of wheat, and is used by the landrill and hotels, who pronounce it superior in strength and fine Satin Gloss to any imported starch—one pound being equal to one and a half pounds of Eastern starch.

LEVI, STRAUSS & CO.,

Patent Riveted

Clothing,

14 & 16 Battery St.,

San Francisco.



These goods are specially adapted for the use of FARMERS, MECHANICS, MINERS, and WORKING MEN in general. They are manufactured of the Best Material, and in a Superior Manner. A trial will convince everybody of this fact.

Patented May 12, 1873.

USE NO OTHER, AND INQUIRE FOR THESE GOODS ONLY. eow-hp

THE ALDEN

FRUIT PRESERVING COMPANY, OF CALIFORNIA.

OFFICE, 426 MONTGOMERY ST., S. F.

Our improved apparatus will do one-third more work than that erected last season, while our prices have been materially reduced. A portion of the purchase money may be paid in the products of the Alden factories. We guarantee against infringements. The Alden is the oldest, the best and the cheapest process known for preserving fruits, vegetables, meats, etc.

It would be unwise to purchase the new and untried dryers before they have demonstrated their superiority by at least one year's regular work. Send for our circulars.

THE BOOKWALTER ENGINE.

Effective, Simple, Durable and Cheap.

The want of a small Portable Engine and Boiler, so constructed as to be furnished at a price within the reach of every one, has long been felt. This has been accomplished in the Bookwalter Engine, an engine which for Effectiveness, Simplicity, Durability and Cheapness, can not be surpassed. For processes requiring light power, such as wood-sawing, running cotton gins, elevators, printing presses or cheese factories, pumping water, a large variety of farm work, and in fact all light manufacturing purposes, this engine is expressly adapted, both in construction and cost.

Prices, delivered at the Railroad Depot, San Francisco:

3-Horse Power.....\$290 00
4½-Horse Power.....350 00

FOR SALE BY

AUZERAI & POMEROY,
SAN JOSE, CAL.

The Nurseryman's Directory.

The undersigned have in preparation, a NURSERYMAN'S DIRECTORY, embracing a list of the Nurserymen, Florists, Seedsmen and Tree Dealers of the United States. The work will be sold wholly by subscription, the price of which will be FIVE DOLLARS PER COPY. A limited space will be given to advertisements, at the following low rates:

Full Page.....\$25.00
Half Page.....14.00
One-third Page.....10.00
One-fourth Page.....8.00

One-sixth Page, \$5.50.

For Sample Pages, and further information, Address

D. W. SCOTT & CO.,

Printers and Publishers,

Galena, Illinois.

J. & P. N. HANNA,

IMPORTERS AND DEALERS IN

Grain, Wool, Ore and Bean Bags,
Flax, Cotton and Linen
Twines.

COTTON, DUCK, RAVENS AND DRILLS—33, 36, 40
42 and 45-inch Wide Duck; 8, 10, 12 and 15-Ounce
Duck.

Ore Bags, Tents and Hose

MADE TO ORDER.

Nos. 308 and 310 DAVIS ST.,

San Francisco, Cal.

Railroads.

Chicago and Northwestern Railway.

Miles in Operation:

Illinois Division.....	486.5
Iowa ".....	432.8
Wisconsin ".....	585.4
Michigan ".....	168.7
Minnesota ".....	291.8
Dakota ".....	38.5
Total Miles.....	2,003.7

IN CONNECTION WITH THE

Central and Union Pacific Railroads,

—THIS IS THE—

PIONEER LINE

Between the Pacific Coast and the

EAST,

And was the first to connect with the great Pacific roads, and form the

OVERLAND ROUTE.

THIS LINE IS THE

Shortest Rail Line

—BETWEEN—

OMAHA and CHICAGO.

The track is of the

BEST STEEL RAIL,

And is well ballasted, and as free from dust as a road can be made; the bridges are strong and durable, and all the appointments are first-class in every respect.

The trains that run over this road are made up of elegant

New Pullman Palace Drawing Room and Sleeping Coaches,

Built Expressly for this Line;

Luxurious, well lighted and well ventilated Day Coaches, and pleasant lounging and smoking cars; all built by this company in their own shops. The cars are all equipped with the

Miller Safety Platform,

—AND—

PATENT BUFFERS AND COUPLINGS,

WESTINGHOUSE SAFETY AIR BRAKES,

And every other appliance that has been devised for the safety of passenger trains. All trains are run by telegraph, and are so regularly on time that one can safely set his watch by their arrivals or departures.

IN A WORD, THIS

Great California Line

Has the

BEST AND SMOOTHEST TRACK,

AND THE MOST

Elegant and Comfortable Equipment

Of any road in the West, and has no competitor in the country. It is eminently the favorite route with Californians traveling East, and is acknowledged by the traveling public to be the popular line for

Chicago, New York and all Eastern Cities.

Through tickets by this favorite route can be procured at all offices of the CENTRAL PACIFIC RAILROAD, and at the office of the

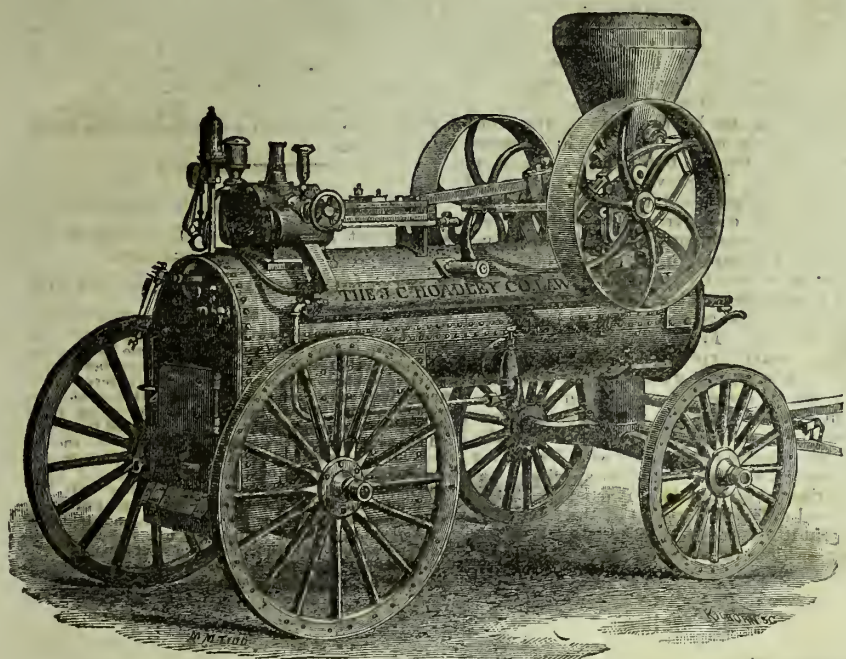
CHICAGO AND NORTHWESTERN RAILWAY,
242 Montgomery street.

H. P. STANWOOD, Gen. Ag't for Calif'na.

M. HUGHITT, W. H. STENNETT,
General Sup't. Gen. Passenger Ag't,
CHICAGO. CHICAGO.

1078-lam-ly

The Hoadley Regulating Cut-off THRESHING ENGINES.



The above cut represents the Hoadley New Style Threshing Engine, 15-horse power, with Patent Cut-off Governor. We also have the same style and size, with HOADLEY'S NEW PATENT STRAW-BURNING FIRE BOX. This new Engine has been thoroughly tested, and we are prepared to warrant it to give satisfaction, OUR GUARANTEE GOES WITH EVERY ENGINE INTO THE FIELD. This new engine is fitted out complete, with High Seat, Foot-Board for Driver, California Roller Brake (not shown in engraving), Iron Hub, Patent Wheels, Forged Bent Axle, and all Mountings in Perfect Order.

THE

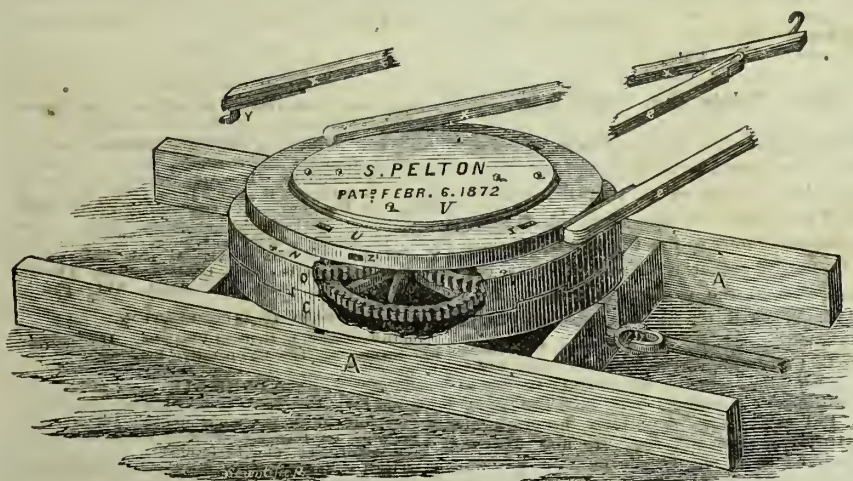
Hoadley Straw-Burning Threshing Engine

Is no heavier than wood-burning engines of same power, and is unquestionably the Best Threshing Engine in the world. It is Lighter, Better Made, Safer, and will do More Work than any other engine of same size and price ever built. THIS FACT IS INDISPUTABLE.

Farmers and Threshers desiring to buy Straw-Burners for coming season, should secure their Engines Early, as the number is not large, and many are already engaged. All Engines will be tested in presence of customers, when required. Send for Circular and Prices. Address,

TREADWELL & CO., Sole Agents, San Francisco.

Pelton's Six-Fold Horse Power.



Having made new arrangements with Mr. McKenzie, I am prepared to supply my powers to all persons favoring me with their orders. All powers hereafter manufactured can only be obtained of me or my agents. In future they will be made under my directions and specifications, and nothing but a prime quality of Machinery Iron will be used in their manufacture.

I have greatly improved the application and bearing—my Levers—which will give them ample strength. All powers fully warranted. For further information, Send for Circulars and Price List to

S. PELTON, Patentee,
San Jose, Cal.

14v9-1am

The attention of Wool Growers is continually invited to the

Thoroughbred Stock Bred and Kept on the MERINO RANCH,

Situated at Niles, Alameda County, Cal., only five minutes walk from the station, junction of San Jose and O. P. R. R. Parties desiring to visit our ranch can leave San Francisco at 3 o'clock P. M., and have an hour at the ranch, returning on Overland train at 6 P. M. Or coming out in morning, can return to city at 11 o'clock A. M. The proprietors make the

THOROUGHbred SPANISH MERINO SHEEP A SPECIALTY,

Believing them to be the BEST SHEEP IN THE WORLD, and are constantly receiving fresh importations from Addison County, Vermont.

Our flock are all Improved Sheep, and have no superiors in the United States. We always have on hand choice young RAMS and EWES, of all ages, for sale at Reasonable Prices, giving time, if required, to responsible parties. City Office—315 California Street, San Francisco.

SEVERANCE & PEET,
Importers and Breeders of Spanish Merino Sheep.

10v7-cow

Grangers' Business Association of California.

Principal place of business, City and County of San Francisco.
Notice is hereby given, that at a meeting of the Board of Directors of the Grangers' Business Association of California, held on the 7th day of April, 1875, an assessment of ten per cent, two dollars and fifty cents per share, was levied upon the capital stock of the corporation, payable May 15th, 1875, to Wm. Vanderbilt, Secretary of the Grangers' Business Association, at his office, No. 6 Leidesdorff street, San Francisco, Cal.
Any stock upon which this assessment shall remain unpaid on the day fixed, to wit: May 15th, 1875, will be delinquent, and advertised for sale at public auction, and unless payment is made before, will be sold on the 16th day of June, 1875, to pay the delinquent assessment, together with costs of advertising and expenses of sale.
WILLIAM VANDERBILT,
Secretary Grangers' Business Association
of California.
Office—No. 6 Leidesdorff street, San Francisco, Cal.

CALVERT'S



SHEEP WASH.

Sole Agency for California and Nevada

T. W. JACKSON'S,
416 Sacramento Street, San Francisco.

CARBOLIC

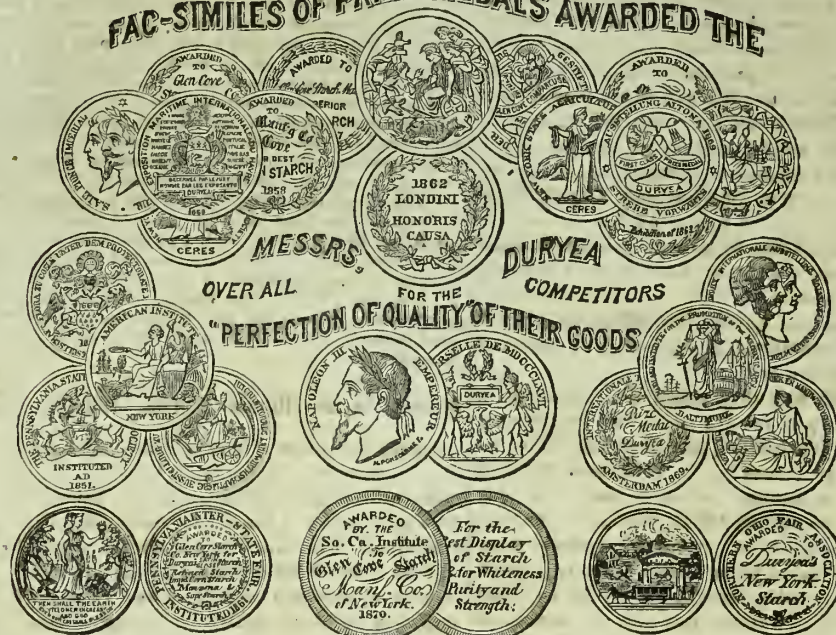
D URYEA'S SATIN GLOSS STARCH AND D URYEA'S IMPROVED CORN STARCH

Are the Best in the World.

USE IT ONCE AND YOU WILL USE NO OTHER.

For Sale by All Grocers.

FAC-SIMILES OF PRIZE MEDALS AWARDED THE



OVER ALL

FOR THE

COMPETITORS

"PERFECTION OF QUALITY OF THEIR GOODS"

The Messrs. Duryea have succeeded in refining Starch to entire purity and developing its entire strength and clearness, an improvement that will be readily perceived in the great strength of the Starch, the superior luster that it gives, and in its reliable uniformity. Much of the so-called starch contains from one-fourth to one-third foreign matter, readily perceived by sourness, mustiness, or a golden yellow tinge, peculiar to inferior starches, a color not desirable for one's linen, but inseparable from the use of common starch. They pledge themselves to the public to give a uniformly superior article, from one-fourth to one-third stronger than any other starch in the world, and at the common market rates.

EGERTON, ALLEN & CO., Sole Agents for the Pacific Coast
San Francisco, California.

BOWEN'S PREMIUM YEAST POWDER.

Bowen's Premium Yeast Powder.

Bowen's Premium Yeast Powder.

Bowen's Premium Yeast Powder.

Bowen's Premium Yeast Powder.

Best in the World! Every Can Guaranteed!!

For Sale in Every Village, Town and City on the Pacific Coast.

Ask Your Grocer for It.

Manuf'd by BOWEN BROS, 432 Pine St., S. F., and 11th & 12th Sts., Oakland.

DUNBAR'S WONDERFUL DISCOVERY.

BETHESDA MINERAL SPRING WATER Of Waukesha, Wisconsin.

We claim Bethesda to be a specific in all cases of Diabetes Inflammation of the Kidneys, Inflammation of the Neck of the Bladder and Urethra, Inflammation of the Bladder, Dropsy, Gouty Swellings, Stoppage of Urine, Albumenuria, Ropy or Cloudy Urine, Brick Dust Deposit, Thick, Morbid, Bilious and Dark Appearing Urine, with Bone Dust Deposits; Burning Sensation with Sharp Pains when voiding Urine, Hemorrhage of the Kidneys, Pain in the Kidneys and Loins, Torpid Liver Indigestion, Calculus, and Female Weakness.

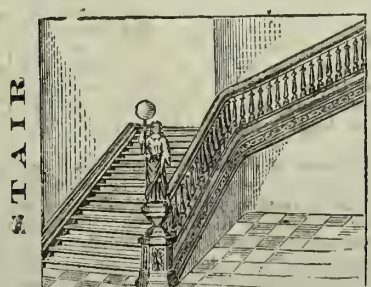
There is no remedial agent known to man that can cure the foregoing diseases as effectually as Bethesda Water. This fact has been demonstrated wherever the water has been used according to directions, which can be had at the General Agents' by application to them. The water is sweet and pleasant to the taste. It can be drunk at all hours. Why should any one suffer while this Water is so easily obtained?

DUNBAR, HENDRY & LAVERY, Sole Agents for Pacific Coast,

1b27-cow-bp-3m

107 STOCKTON ST., SAN FRANCISCO.

SANBORN & BYRNES.



Mechanics' Mills, Mission Street,

bet. First and Fremont, San Francisco. Orders from the country promptly attended to. All kinds of Stair Material furnished to order. Wood and Ivory Turners. Billiard Balls and Ten Pins, Fancy Newels and Balusters. 25v8-8m-bp

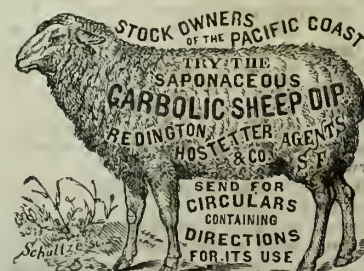
PETERSEN'S

PATENT BEEHIVE.

For Sale at the Union Box Factory, 116 Kearney street, San Francisco. Send for free illustrated circular, with 'Treatise on Bees,' to

P. O. PETERSEN,

Oakland Post Office.



This is a Sure Cure for Screw Worm, Scab and Foot Rot in Sheep. It also kills Ticks, Lice, and all Parasites that infest Sheep.

Prevents scratching and greatly improves the quality of the wool. One gallon of the Dip properly diluted with water will be sufficient to dip one hundred sheep, so that the cost of dipping is a mere trifle, and sheep owners will find that they are amply repaid by the improved health of their flocks.

This Dip is guaranteed to cure when used according to directions, and to be vastly superior to Corrosive Sublimates, Sulphur, Tobacco, and other remedies which have heretofore been used by farmers.

Circulars sent, post paid, upon application, giving full directions for its use, also certificates of prominent sheep growers who have used large quantities of the Dip, and pronounce it the most effective and reliable known Cure and Preventive of Scab and other kindred diseases in Sheep. mr13-hp

DEWEY & Co., GENTS:—I assure you there is no more welcome sight to 'Our Folks' than the PRESS, and I had far rather do without my dinner than fail to receive your valuable paper each week. G. W. O.

Openings for Immigrants.

In accordance with our promise of last week we give such information as we have been able to gather in regard to probable openings for immigrants. These statements are placed before our readers just as they come into our hands, without presuming to choose for others. He who gives direct advice in this matter, saying to the new comer, you had better come here or you had better go there, does not properly estimate the responsibilities involved. It is about as delicate a matter to presume to choose a home for a man as it is to guide him in his search for a wife. Besides the few main points, such as profitable employment, good health, educational and religious advantages, etc., there are numerous minor considerations, some of them hardly explainable by the parties themselves, but which if they do not govern a man's choice in locating a home, do much toward inducing him to leave it.

Taking this view of the matter, we shall, as heretofore, forbear giving advice on this and subjects akin to it.

In gathering this information we shall, of course, reject everything bearing the impress of misrepresentation, though we should not be expected to vouch for the correctness in detail of the statements collected, and while our friends are making due allowances for the partiality of the local papers from which these suggestions are taken, and are properly guarded against possible attempts at swindling, they should be careful how they fall into a state of chronic suspicion and disbelief.

The following, from the Lakeport Bee, shows that in Sonoma and Mendocino counties a large tract of Government land is now open for pre-emption and homestead entry:

"George H. Perrin, Deputy United States Surveyor, has just completed the survey and subdivision of the following townships in the counties of Mendocino and Sonoma, to wit: Townships 10, 11 and 12 north, range 13 west; also, township 12 north, range 12. This land is now open to homestead and pre-emption, and is said to be good farming land, besides which there is an abundance of timber—redwood and oak; plenty of clear, beautiful water is found all over this tract, and its being thrown open to settlers at the present time will afford our new comers an opportunity for acquiring cheap farms."

It would seem from the following statement, taken from the Visalia Delta, that the fears most people in this county entertain in regard to the high price the railroad company will fix on their lands are likely to be without foundation: "The Southern Pacific has graded twenty-four townships of its lands in this county, at an average of about \$3.75 per acre, or about \$2.50 for red land. The townships graded are as follows: Township 17, range 25; township 18, ranges 24, 25, 26, 27; township 19, ranges 21, 22, 23, 24, 25, 26; township 20, ranges 21, 22, 23, 24, 25, 26, 27, 28; township 21, ranges 23, 24, 25, 26, 27. The highest priced lands are on Tule river."

"The Stockton Independent of a recent date has a long article in regard to furnishing employment to the poorer class of immigrants that are now thronging to this coast. It says that many of them stop around the bay towns and cities, looking for something to do, until their money is all spent and they suffer great privations. The Independent would do better instead of trying to make employment for these people where there cannot be any, to advise them to turn their steps promptly toward the interior. There is employment for sober, industrious men in this county without number. We want miners, farmers and men of all trades. All our enterprises are crippled for want of human muscle. Our large farmers spend much of their time in town on the lookout for laborers. Men are wanted in every pursuit. Some important mining operations are at a standstill for want of miners, and the Big Blue, at Kernville, alone would not be long in finding employment for one thousand men were they to come forward."

The St. Helena Star (Napa county) of April 15th, has the following:

"California will have a population of at least fifty thousand more in six months than it has to-day. Plenty of room can be found in our beautiful valley for all that come, and we extend a friendly welcome."

The Calaveras Chronicle (Calaveras county) of April 17th says:

"It appears to us that the foothill section of the State offers superior advantages to all classes of immigrants, and that immediate steps should be taken to disseminate information respecting it. Take Calaveras as an illustration: There are thousands of acres of tillable lands to be had in this county at Government prices, and under the pre-emption law it is not necessary to make payment until thirty-three months after settlement. Homestead entries can be made if preferred, title being acquired after five years' residence without payment. The soil may not be so fertile as in some portions of the valleys, but every variety of fruit, grain and hay, can be grown with a much greater certainty of a crop. Stock-raising

offers great inducements to those who have the means necessary for embarking in that branch of business. The mining interest offers a wide field for the employment of labor at remunerative wages, and there is no lack of chances to obtain work in other occupations. Calaveras can easily furnish homes for 10,000 immigrants, and other foothill counties offer similar advantages."

The Tuolumne Independent (Tuolumne county) says:

"We are informed by one of our lumber firms that probably from thirty to fifty men will be wanted in the lumber region above Sonora this season—say in five or six weeks; and that from the present to that time men can earn their grub, at least, in road-building, etc., preparatory to active business at the mills. We also learn that miners are in great demand in the mountains, but, of course practical men are needed for this department of labor."

The Southern Californian, (Bakersfield, Kern county) April 22, contains the following:

"THE PRICE OF LAND.—We are the recipients of frequent inquiries of the price of land in the Kern River valley, and find the reply unsatisfactory to many when we respond that the average price of good land is \$20 per acre."

"WANTED.—Thirty farm hands. Wages, \$30 per month. Work for the whole season for good hands. Call for the next thirty days at this office."

Answer to an Illinois School Teacher.

Among the letters of inquiry which we have been called upon to answer is one from Wm. Farquar, of Hamilton, Hancock county, Illinois. This gentleman is a teacher by profession; has a family of four children; his limited means will not admit of his providing for them in that country as he would wish; has had excellent success in his calling; is devoted to it; and wishes to know what are the chances for his getting a position in our common schools, and sustaining himself until he can obtain a home of his own here; and adds: "This letter is not for myself alone, but for quite a number of good citizens who are anxious to seek homes in the 'Golden State.'"

He will find the profession of school teaching occupying about the same position in regard to qualifications, pay and respectability, which it holds in his own State. The standing applications for desirable situations may not be quite as numerous here as there, but they are sufficient in numbers to effectually exclude, for a time, new comers. A stranger coming here, no matter what qualifications or abilities he may possess, could hardly expect to step at once into one of these responsible positions. Merit is soon recognized here and duly appreciated; and when he once becomes favorably known he will stand a far better chance to succeed than in his present location. The proportion of male teachers is much larger here than at the East; and if he is indeed "a teacher by profession," he will find little cause for "giving it up entirely," as he intimates. School teaching is not incompatible with robust health here, as in most countries; for, instead of driving the school house furnace or stove to its fullest capacity during every hour of the long winter—the season when schools are most crowded—we have in many localities no need of any fire, and in others only a little to take off the chill of the morning air. Then in summer, instead of the sultry, languid atmosphere, that renders the season unbearable in many other parts, and which seems to become vitiated instead of purified during the night, we are blessed throughout the twenty-four hours with an atmosphere pure and invigorating; making in-door employment healthful and endurable.

We would, therefore, advise our correspondent to stick to his profession; and we would take this occasion to suggest that people on coming here are somewhat too much inclined to abandon their legitimate calling in order to try something new. When they hear of the difference between California and Eastern farm and other work, they evidently in many cases anticipate too radical a change; and instead of closely observing the points that go to make the difference, they throw up their trade and callings and resolve to try their hands at something new, thus adding materially to the already too large army of adventurers in the country.

From the tone of our correspondent's letter we judge that he very properly is governed mainly in his movements by considerations for the future welfare of his children. In some cases we have felt called upon to slightly check the aspirations of intended immigrants in regard to the advantages which the country offers to new comers; but in the numerous instances in which our advice has been asked concerning the wisdom and propriety of bringing a young family to California, we have unhesitatingly in all cases said, in substance, bring them along. They will stand a much better chance for advancement in any new country than in the older States, and California possesses advantages over any other of the new States and Territories. Boys and girls coming here will find strong and efficient competitors in educational or other tasks, but fair abilities and good endeavors will be duly recognized and rewarded.

The Advertiser says the frost did not greatly damage the grapes or the fruit in San Bernardino county.

The Coffee Blight on the Sandwich Islands.

At the last meeting of the San Francisco Microscopical Society, Dr. Harkness, who has just returned from a short trip to the Sandwich islands, exhibited several slides representing different phases in the life history of the blight which is believed to have been the cause of disease in the coffee plant of those islands.

The doctor was unable to obtain, at the time of his visit, any coffee leaves which were afflicted by the fungus, but brought with him several leaves of the guava plant, which were infested with a blight said to be identical with that found on the coffee tree. These specimens belong to the genus *Hyphomyces*, which appears upon the upper surface of the leaf as a black mould, and is a true fungus, the mycelium forming a network over the surface of the article and its filaments dipping downward into the cell beneath. From the surface of the mycelium, aerial hyphae are thrown off in branches, made up of globose cells, adhering to each other, sometimes rising in a single stem, in others dividing into two or more branches. From these branches arise on the one hand a capsule (*sporangium*), with its cluster of spores, and on the other a spermatogonium, with imprisoned spermatids. The slides exhibited showed different portions of the plant and proved that it was not the coffee blight—*hemileia vastatrix*—which proved so injurious in the island of Ceylon.

Book Notice.

"THE DAIRY COW."—This is a monograph on the Ayrshire breed of cattle, written by E. Lewis Sturtevant, M. D., and Joseph Sturtevant. From beginning to end the book bears unmistakable evidence that an ardent admiration of the Ayrshire cow was the inciting motive in its production; and the evidence is equally as strong that this admiration is strictly appreciative, and that the writers are not governed by narrow minded partiality. It is a book which the dairyman and the stock-breeder can read with profit, no matter what their preference for breeds may be, for the subject is treated in an exhaustive and judicious manner, giving a complete history of the Ayrshire breed of cattle, their characteristics as milkers, butter and cheese producers, their adaptability, etc. Added to the practical merits of this book is a hearty freshness which will commend it to the uninitiated in dairy and stock matters.

For sale by A. L. Bancroft & Co.

Don't Violate the Postal Law.

However bad the laws regulating postage may be, they ought to be obeyed to the letter. Thoughtless people often tax their friends heavily for neglect in this particular, because those friends prefer to pay the additional postage demanded, rather than subject their correspondents to the penalty of a fine, which would be inflicted in case the payment of extra postage was refused. Everybody ought to know that enclosing printed matter—not a portion of the paper sent—is as contrary to law as enclosing written matter; both acts are fineable. Publishers are sometimes ignorant or forgetful of the fact that they are not allowed to send any extra sheet or even slip to subscribers, except it be a legitimate supplement. Postmasters at this time are especially avert to detect and punish frauds in this direction.

Grasshoppers, Rabbits, Etc.

EDITORS PRESS:—In last week's issue, J. M. Matthews, of Los Angeles, asks information through the columns of your paper for any preventive against jack rabbits and grasshoppers ravaging young grape vines, and if there is any way to rid one of these pests.

Permit me to reply to him and several subscribers, that there are in my opinion many ways, and as I look on your valuable paper before me, I behold in your "Patent Back-Action for Runaways," a capital "idea." Just set a row of them all round the field and catch every jack rabbit manifesting any desire to exhibit his speed in the direction of the vineyard, and it will stop all their ravaging propensities at once. The "hopper" is a different animal altogether, the machinery of locomotion is varied in character, enabling him to walk, run, jump, fly, soaring above all such "contraptions" as the one alluded to above, which I am satisfied is not at all adapted to the grasshoppers. I therefore give this part of the question up. Now to business; Los Angeles must certainly be supplied with fencing materials; also, lath for building purposes. Supposing this to be true, obtain posts and boards for the top and bottom, take lath and nail them on the boards two inches apart; this will require four laths per foot, at \$3.50 per M. (in San Francisco, probably the same in Los Angeles,) the laths will cost \$14.00 per 1,000 feet, and will cost for material \$11.00 less per 1,000 feet than a four board fence, fencing boards at \$25.00 per M; while the fence is equally as good against the

encroachment of stock, and a certain barrier to the "jacks;" not only that, if you wish to use it as such, it can be utilized as a big trap, by leaving apertures every little way and set a box trap at these openings, and the rabbits will go in sure. Then I would most respectfully suggest the propriety of utilizing them *a la mode* to suit your taste, as long as there are any left, or until you get tired of them, then for the above suggestion you can send the balance to

Yours appreciatively, W. H. BAXTER.
P. S.—Needn't send any grasshoppers along with the jacks.

The Russell End-Shake Thresher.

Read what Farmers and Threshers Think of it.

IT WILL CLEAN THE FOULEST GRAIN.

SAN JOSE, Cal., March 16th.

MR. LAUFENBURG.—Dear Sir: I drop you a line concerning the Patent Shoe you put in for me last season. I was perfectly astonished at the difference between it and the old Shoe, and excels it in every respect. It runs at least very much lighter, and will not clog by any fair means. I have tried it on as foul grain as is possible to be threshed at all, and it cleaned it nicely, and the same grain was a continual bother with the old Shoe. It can be set quicker and much more firmly, and does away with braces or rods to steady it; and there is no doubt in my mind but the Separator will last much longer. From the time the Shoe was put in it ran the season through with no bother, and is ready for several other crops. What amount it can clean in the day I cannot tell, and I only know it cleaned all I could thresh. I would not have a separator without a Patent Shoe. Yours respectfully,

C. HOLLOWAY.

SUTTER CREEK, February 26th, 1875.

MESSES. DEWEY & CO.—I have received my Letters Patent through your agency. And, for your promptness, accept my thanks. Yours, S. N. KNIGHT.

WOODWARD'S GARDENS embraces an Aquarium, Museum, Art Gallery, Conservatories, Tropical Houses, Menagerie, Seal Ponds and Skating Rink.

(IN PRESS.)

Manual of Jurisprudence and Co-Operation

—OF THE—

Patrons of Husbandry.

By A. B. SMEDLEY, Master of Iowa State Grange.

Published by Geo. M. JONES.

OFFICE OF PATRON'S HELPER, DES MOINES, IOWA.

200 pages, bound in cloth.

By mail, postage prepaid, \$1.25 per copy.
By express or freight, in packages of five or more, \$1.00 per copy.

CONTENTS.

INTRODUCTION.

The Origin of the Order. Its Objects: To Educate, Elevate and Strengthen the Farmers as a class.

PART I.—JURISPRUDENCE.

I.—The Grange. II.—Grange Room. III.—Qualifications of Candidates. IV.—Applications for Membership. V.—Balloting for Candidates. VI.—Rights and Duties of Members. VII.—Qualifications and Duties of Deputies. VIII.—Qualifications and Duties of Masters. IX.—Qualifications and Duties of Secretaries. X.—Charges. XI.—Trials. XII.—Appeals. XIII.—Withdrawals and Demits. XIV.—Consolidations. XV.—The Degrees of the Order Symbolized. XVI.—Pomona Granges.

PART II.—CO-OPERATION.

I.—Co-operation in General Business. II.—Co-operative Insurance. III.—Co-operative Banking.

APPENDIX.

Forms for: Certificate of Membership—Petition of Membership—Commission of Deputies—Annual Report of Deputies on Business—Visiting Card—Withdrawal Card—Demit Card—Certificate of Election—Certificate to be used at Representative Election. Constitution of Pomona Granges. Forms for: Petition for Membership—Certificate of Election—Certificate of Organization—Petition for Charter—By-Laws of Grangers' Bank in California. Constitution and By-Laws of Co-Operative Council. Articles of Association, Farmers' Mutual Fire Insurance Company. Certificate of Insurance.

Deputies and Masters are earnestly requested to call the attention of their respective Granges to this book, to the end, that by its general use each officer and each member of our Order may better understand his rights and duties, and the Order everywhere may thereby be strengthened and built up, and enabled to perform its whole work and attain unto perfect success.

Address, DEWEY & CO.,
Pacific Rural Press Office, S. F.

P. S.—For convenience, copies will also be delivered by I. G. Gardner, State Grange Agent, No. 6 Leidesdorff street, San Francisco.

LOCKE & MONTAGUE,

IMPORTERS OF

Stoves, Ranges,

Tin Plate, Sheet Iron, Iron Pipe,

House Furnishing Hardware,

Plain Japanned,

Planished and Stamped

TIN WARE,

112 and 114 Battery Street,

SAN FRANCISCO.

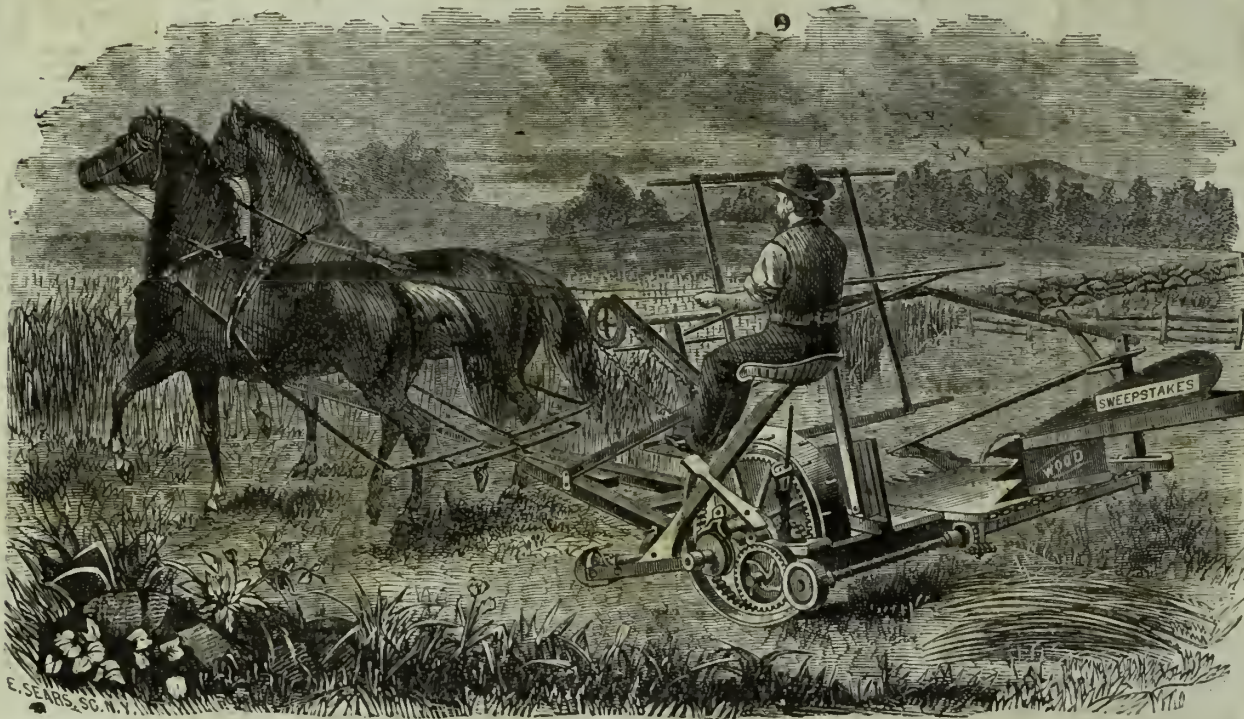
Frank Bros. & Co., General Agents,

206 DAVIS STREET, SAN FRANCISCO.



WALTER A. WOOD'S IRON FRAME MOWER.

The most perfect Mower in the market. It rivals all others in simplicity of construction, lightness of draft, and is by far the cheapest First-class Mower in use.



WALTER A. WOOD'S CHAIN SELF-RAKE REAPER.

The most durable Reaper ever brought to the Pacific Coast. Ease of draft, ease and convenience of management; compact and perfect gavel. Regulating size of undule by pressing a lever, with heel, and height, of cut are a few of the many points of excellence that are claimed by those who have used Wood's Chain Rake Reaper.

CHAPLIN'S PATENT STEEL SPRING REVOLVING RAKE.

Any boy that can drive a team can manage this Rake with ease.

BUCKEYE SULKY RAKE.

Warranted to be as good as any in the market.

We are also Agents for the Sweepstakes Threshers, which have been specially improved for the Pacific Coast. Send for Circulars.

FRANK BROS. & CO.,

206 DAVIS STREET, SAN FRANCISCO.

PUMPS.

"PEOPLE'S PUMP."

THE FARMERS' FRIEND.

BEST IN USE FOR HOUSE AND STOCK PURPOSES. CAN
BE USED WITH HOSE FOR WASHING
WAGONS, WINDOWS, AND
WETTING GROUNDS.

SEND FOR CIRCULAR.

DUNHAM, CARRIGAN, & CO.,

Successors to

Conroy, O'Connor & Co.,

San Francisco

RELIABLE.

THE

UNEQUALED.

ONE PRICE DRY-GOODS HOUSE,

42, 44, and 46, Third Street, San Francisco.

THE GOODS ARE ALL MARKED, IN PLAIN FIGURES,

PEIXOTTO & SILVERMAN

Union Box Factory,

GEO. W. SWAN & CO.,

115 and 118 Spear St., bet. Mission & Howard
SAN FRANCISCO.

Apple, Pear, Plum, Peach, Cherry, Grape,
Orange, Lime and Wine Cases.
Tomato, Potato, Fig and Raisin Boxes.
Strawberry, Raspberry and Blackberry Chests
and Drawers, and Baskets for all kinds of Berries.
Peach and Picking Baskets, Butter Chests and
Boxes, Cheese Boxes, Square and Round Egg Carriers.
Drums for Figs, Cherries, Raisins, and for
other Dried Fruits.

Free Packages—Boxes not to be returned—a
good article, costing less than Sawed Boxes.
Lard Caddies, Coffee and Fruit Caddies.
Turkey and Chicken Coops, Bee-Hives, Etc.
Packing Boxes for Dry-Goods, Cigars, Can-
dies, Canned Fruits, Honey, Macaroni, Crackers,
Sugar, Soap, Boots, Etc.

In fact, every style of Boxes manufactured in
the Union, and turned out in the Best Style at Favor-
able Prices. Orders from the country well attended to

5,500 ACRES

Of the best portion of the old NOMELACKEE
RESERVATION, in Tehama County, for sale
very low; only five dollars per acre; one-third down,
one-third in one year and one-third in two years, with
interest at one per cent per month. Will be sold all
together or in two parcels. This is one of the finest
tracts of grazing land in Northern California; is abun-
dantly watered by numerous perpetual springs and has
two miles of the Elder Creek, a clear mountain stream.
Its grass never falls from drouth, and is of the best
quality for sheep and has no clover burr. 800 acres of
level plow land; timber for posts, fuel, etc. Enquire of
ALLEN WILCOX, Los Angeles, or F. B. WASHINGTON
on the tract, twenty miles west of Tehama.

LOOK TO YOUR INTEREST!



MANUFACTURED BY THE

PACIFIC RUBBER PAINT
COMPANY.For many years chemists and others have experi-
mented in mixing India Rubber with Oil, Lead, etc.,
in order to produce a perfectly

WATER-PROOF PAINT,

And at last successful in their effort, have formed a
chemical combination of Rubber with oil paints,
which when applied becomes hard and elastic enough
not to crack or peel, from the action of the atmosphere,
with a gloss equal to work finished with varnish. The

Pacific Rubber Paint Company,

Of San Francisco, California, together with the RUB-
BER PAINT COMPANY, of Cleveland, Ohio, own all
the patents covering perfect combinations like the
above, which is known and sold by them as "Rubber
Paint."The great demand for the Rubber Paint induced this
Company to purchase of the Cleveland, Ohio, and New
York Rubber Paint Company, the patents for this
coat, and are now manufacturing this paint in all col-
ors, in large quantities, and have put the price below
the best lead and oil paints. The Rubber Paint is
prepared in Pure White, in all Cottage and other
colors, comprising any number of different shades and
put up ready for use, being a great advantage, as it can
be spread by any one.It Flows From the Brush Freely. Works
Easily, and Settles Promptly. It is avail-
able for all kinds of Painting,And may be used with equal advantage on iron, stone
wood, brick, or plaster.The Rubber Paint will cover more surface, cover it
better, and last much longer than Lead and Oil. Two
coats of the Rubber Paint is better than three coats of
Ordinary Paint.

SAN JOSE, CAL., March 20, 1875.

PACIFIC RUBBER PAINT Co., San Francisco.—Gentle-
men:—I have used and sold the Rubber Paint in this
city during the last four years. We have about one
hundred buildings painted with the Rubber Paint.
Among the prominent ones are the State Normal School,
Gates Institute, City Market; the residences of Josiah
Belden, J. W. Hinds, President Gold Note Bank, J. R.
Arquette, Santa Clara, etc. It has never failed to give
satisfaction, with a test of from one to four years, so
that its durability has been well tested. My sales last
year were nearly five thousand gallons.

Truly Yours, AMASA EATON.

REFERENCE:

CAPT. EDWIN MOODY, San Francisco.
AMASA EATON, San Jose.
WILLEY & RINALDO, San Jose.
WALLACE EVERSON, Oakland.
F. K. SHATTUCK, Oakland.
ISAAC KNOX, ESQ.

Office and Factory.

No. 207 Sacramento Street,

SAN FRANCISCO, CAL.

JESSE HEALY, } Proprietors.
ANDREW DE FOREST, }
mar 27-75

DAVID WOERNER



COOPER,

No. 104 and 112 Spear St., San Francisco.

Wine Casks, Tanks, Tubs, Pipes, Beer Bar-
rels, etc., Manufactured at Short Notice
and LOW RATES.LUMBER for CASKS, etc., TANKS, etc. Steamed
and Dried if required. eow-bp.

FARMERS' UNION.

SUCCESSORS TO A. PRISTER & CO.,

Cor. Second and Santa Clara Sts., San Jose.

CAPITAL, \$100,000.

WM. ERKSON, PRESIDENT

H. E. HILLS, MANAGER

Directors.—Wm. Erkson, L. F. Chipman, Horace Little

J. P. Dudley, David Campbell, James Singleton, Thomas

E. Snell, O. T. Settle, E. A. Braley.

Will do a General Mercantile Business, also receive De-
posits, on which such interest will be allowed as may be

agreed upon, and make Loans upon approved security.

BAKER & HAMILTON,

Nos. 7 to 19 Front St., San Francisco.

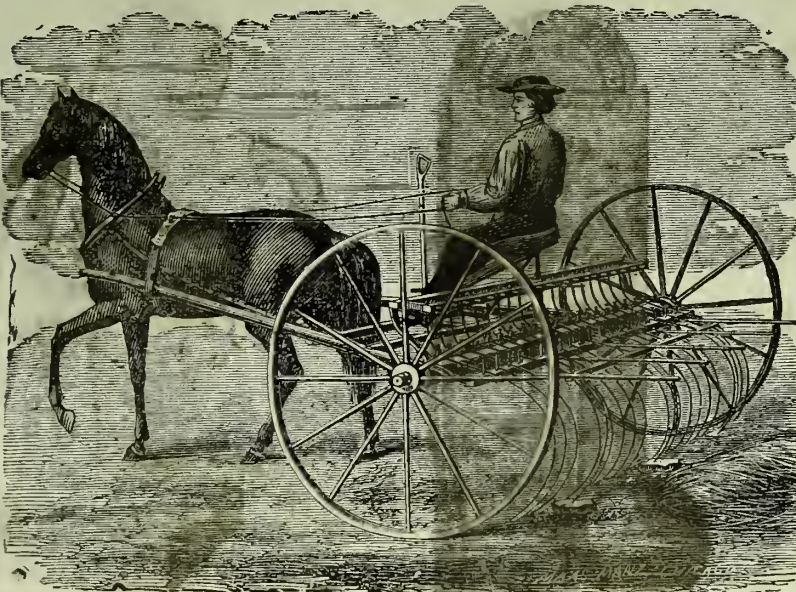
Nos. 9 to 15 J St., Sacramento.

The Hollingsworth Sulky Rake

Is no new and untried rake, but has been before the public for the last eight years, and has stood the most thorough test of time and use, and stands to-day as it did seven years ago. Without a Rival among Sulky Rakes. This is so notorious, and is so generally admitted by farmers and dealers everywhere that the man who will seriously deny it will attract attention for his want of intelligence or reckless disregard of truth. We are happy to know that an appreciating public recognize this; they know its excellence and value, and have attested their convictions by the 30,000 of them now in use. With every returning year the demand is increasing, and it is gratifying to know that in localities where they are already most numerous the demand is the greatest. The "Hollingsworth" may very appropriately be called THE GOLD MEDAL RAKE.

At the Great National Field Trial, held at Auburn, New York, where agricultural implements received the most effective and severe tests given in this country, the "Hollingsworth," after two weeks' trial in field competition with all the different kinds of Sulky Rakes, was awarded the Gold Medal. And at the New England Field Trial, where all the leading and most popular Sulky Rakes contended for the first prize, the "Hollingsworth" won the gold medal. It has many peculiarities which strongly individualize it, and mark the line which separates it from other rakes, in a very clear manner. It has Adjustable Compound Spring Teeth, 20 in number, each of them being quite independent of the other. The upper end of the tooth plays upon a Spiral Spring, thus avoiding any strain upon the tooth when caught upon a stone or other obstruction. The Teeth are of Spring Steel, tempered in oil. Every inch of steel serves as a spring.

By virtue of their adjustability the teeth can readily be adapted to every variety of work, a feature which no other Rake possesses. It is substantially timbered and ironed, and finished in the best manner possible.



HOLLINGSWORTH SULKY RAKE.

Improved Tipping Horse Rake.

This is the Best Revolving Rake ever manufactured. They are made of the very best quality of seasoned timber, by experienced and competent mechanics. The Heads are of the Best Ash, and the Teeth of the Best Hickory, thoroughly oiled, and are very tough. Eight hundred of these Rakes were sold by us last season, and every one gave perfect satisfaction. The Patent Tripping Arrangement is simple, durable, and easily operated. It only requires the use of one hand to handle the Rake either in Tripping or while Raking. Beware of Imitation Rakes, made of culled timber. SEE THAT EACH RAKE HAS OUR NAME ON, AND TAKE NO OTHER.

Champion Reapers and Mowers.

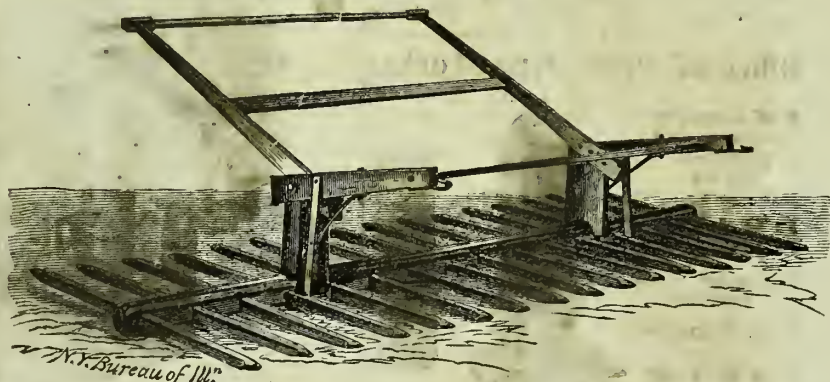
All the Champion Machines have the wrought iron frames, and the wrought iron connection of the cutter bar to the main frame securing the greatest strength and durability, with the least weight. The stationary wrought iron axle for the driving wheels does away with two necessary boxes, so there are but three boxes on the frame to wear. All of these machines have the Dropping Drag Bar for tilting the points of the guard fingers down to cut lodged grass close to the ground, or turning them up to pass rough or stony places.

The cutter bar can be entirely raised from the ground to pass over obstructions while cutting, and it folds conveniently for transportation.

The Champion does its work smoothly and well, and can always be depended on; is light of draft, and easily managed by the driver. The system of duplication is complete; any part may be replaced or exchanged while in the field, without the use of any tools except the monkey wrench, which is supplied with the machine.



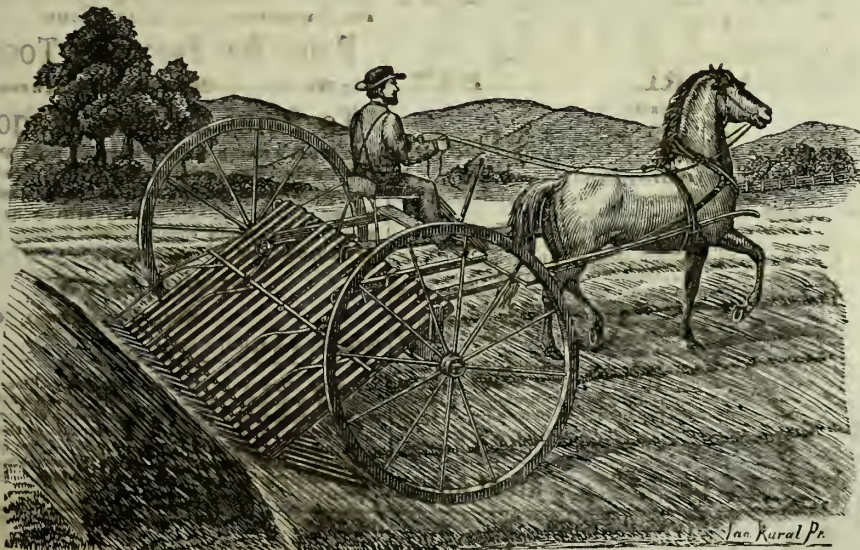
CHAMPION MOWER.



IMPROVED TIPPING HORSE RAKE.

Sole Agents for Ames' Celebrated Straw or Wood-Burning Engines.

Patent Extension Toothed Hay Rake.



Made of the Best Material, Runs Light and is Easily Operated.

Being so regulated by draft of horse as to nearly balance the rake, the operator steadying the lever and holding the teeth to the ground as required.

The Hay is Clean, free from Dirt and Dust.

And is not wadded or rolled, as from the Wire Toothed Rake.

The Teeth Rise and Fall Over Uneven Ground.

Gathering hay where other Rakes leave it behind, and are also double pointed, can be used any length, and turned point to point when dulled, or a tooth replaced without delay. Also manufacture Wire Rakes of the same pattern. Parties can have their choice of wire or wood.

BONNEY'S PATENT ADJUSTABLE GRAIN LIFTER, FOR HEADERS.



PRICE, \$40.

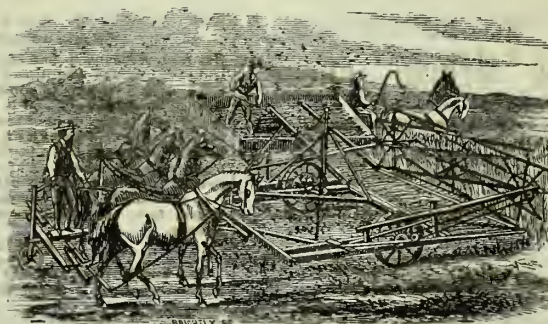
Manufactured by O. BONNEY,

No. 221 Mission Street,

SAN FRANCISCO.

13-v9-lam

OUR IMPROVED HAINES' HEADER,



With Compound Leverage,

Doing away with all Ballast or Weights,

Either on the Lever or Frame; will be appreciated by Header Men. Also, a new device for driving the Knife, making the Header run one horse lighter than any header ever imported. The driving of the Reel is an improvement; in turning, the Reel runs just as fast as when driving straight ahead. The improvements will be found to meet the demands of California trade.

Our Excelsior Mowers are Improved for 1875.

Three Sizes—"Junior," "Medium" and "Senior."

J. I. CASE & CO.'S

SEPARATORS AND STEAM ENGINES

Are the Largest Works of the Kind in the World.

The Threshers and Engines are Made Expressly for this Trade.

Pitts' Down and Mounted Powers, "Foust's" Hay Loader, and Keller & Co's Sulky Revolving Hay Rake,

An age in advance of any other Rake. See these goods before buying; they can be found with us only. Our Stock of Implements is Complete.

THRESHERS, ENGINES, POWERS, HEADERS, REAPERS, MOWERS, RAKES, HAY PRESSES, CORN PLANTERS, CORN CULTIVATORS, CORN SHELLERS, OILER AND WINE MILLS, HAY CUTTERS, DERRICK FORKS, BELTING, PUSH CARTS, PLOWS, HARROWS, CULTIVATORS, GORHAM SEEDERS AND CULTIVATORS COMBINED, FISH BROS., PACIFIC WAGONS, REGULATOR WINDMILLS AND PUMPS, ETC.

KELLER & CO., 43, 45 & 47 J Street, Sacramento, Cal.

SEND FOR CIRCULAR.

SHOT-GUNS, RIFLES, PISTOLS, REVOLVERS,

Of any and every kind. Send stamp for Catalogue. Address Great Western Gun and Revolver Works, Pittsburgh, Pa.

Geo. W. Chapin, Real Estate Agent, 434 Montgomery St., San Francisco, buys and sells Ranches in all parts of the State. City Real Estate exchanged for country. Pro per ty. MONEY LOANED. Post Office Box 1120

Brittan, Holbrook & Co., Importers of Stoves and Metals, Tinners' Goods, Tools and Machines, 111 and 113 California, 17 and 19 Davis streets, San Francisco, and 178 J street, Sacramento.

\$5 to \$20 Per Day at home. Terms free. Address G. STINSON & Co., Portland, M

FARMERS write for your paper,

Excellent Deep-Well Force Pumps.
ECLIPSE WINDMILLS.



Cheapest, Strongest, Best. Eight years experience. Mills 10 feet to 60 feet in diameter—every mill warranted. Send for illustrated circulars.

CHAS. P. HOAG, General Agent,
18 Fremont Street, San Francisco.
THE CHEAPEST IRRIGATOR KNOWN.

14 **GMG** OZ.

**STEARIC ACID
CANDLES**
GEO. M. GRANT & CO.
PHILADELPHIA.

The Candles sold under the above well known "brand" are made only of Pure Stearic Acid, twice hydraulic pressed, are not cheapened by adulteration with crude material, and upon burning, give a large and brilliant flame, without running. 13v9-2smbp

Office of Drain Pipe Works,

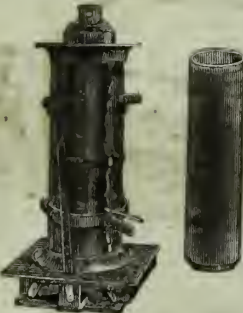
S. W. Corner Sacramento and
Montgomery Sts.,
S. F.

DRAINS
CONSTRUCTED

In any part of the
State, and
Work Warranted

E. T. MENOMY
Proprietor.

bp-cow-1 yr



E. W. WOOLSEY,

BREEDER OF



THOROUGHbred

SPANISH MERINO SHEEP,

From Vermont Premium Stock,

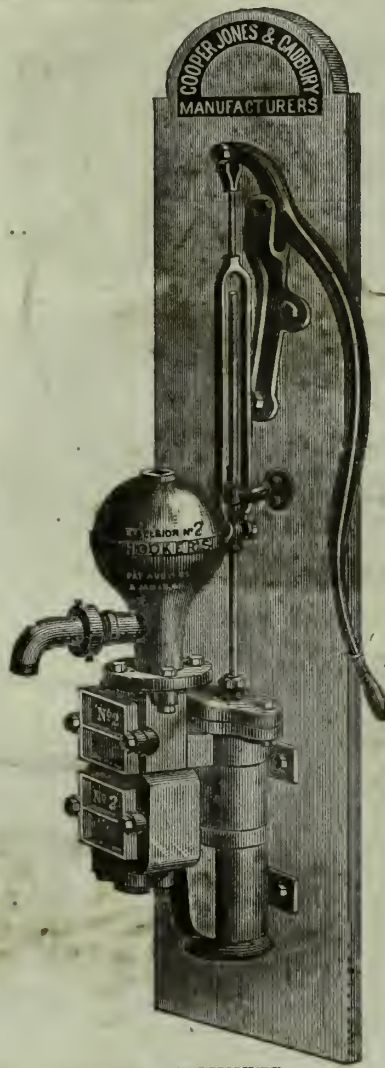
At Berkeley, Alameda County. Horse cars every half hour from Broadway Station, Oakland.

CITY OFFICE, 418 CALIFORNIA STREET, S. F.

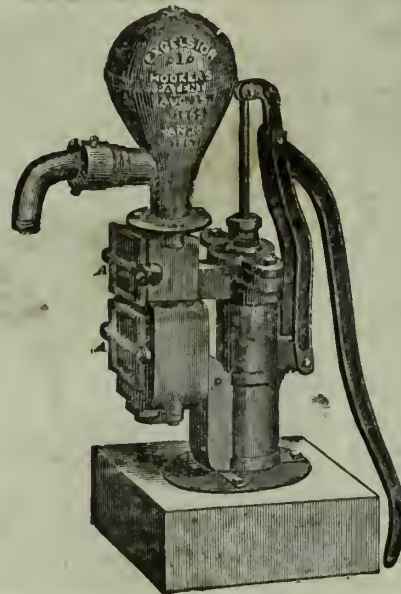
A Good Binder for \$1.50.

Subscribers to this journal can obtain our Patent Elastic Newspaper File Holder and Binder for \$1.50—containing gilt title of the paper on the cover. It preserves the papers completely and in such shape that they may be quickly fastened and retained in book form at the end of the volume, and the binder (which is very durable) used continuously for subsequent volumes. Post paid, 25 cts. extra. It can be used for Harper's Weekly and other papers of similar size. If not entirely pleased, purchasers may return them within 30 days. Just the thing for libraries and reading rooms, and all who wish to file the Press.

THE "EXCELSIOR" FARMERS' PUMP.
After Eight Years' use, proving itself the Best Pump on this Coast, and consequently the CHEAPEST.



MOUNTED.



BASE.

We can advise all parties to buy the Pump to be worked by hand, windmill or horse power. All sizes for sale.

REMEMBER,

Every Pump is tested to 125 lbs. hydraulic pressure per square inch.

Will pump water 250 feet high.

So simple every farmer can keep it in order.

EVERY PUMP WARRANTED.



VALVE.

Send for circular.
mar27-2sm

BRITTAN, HOLBROOK & CO.,

111 & 113 California St., S. F., (and also Sacramento,) Gen. Ag'ts.

FARM HANDS.

The Grangers' Scandinavian American Employment Office

Has been removed from 6 Liedesdorff to 608 Clay street, and Consolidated with the Pacific Coast Employment Office. This office is in constant communication with Grange Headquarters, and is the only one in the city conducted by members of the Order. Our facilities for furnishing MALE and FEMALE help of all kinds are unequalled by any office in the city. Great care taken to select reliable help. Chinese Orders for Servants, in door and out, promptly filled.

In ordering help, be particular in describing work, wages, fare, etc., Real Estate and General Business Agency.

PHILIPS & FLIGGLE.

The Employment Office of Talbot & Co. has no connection whatever with the Granges.

I. G. GARDNER.

BRASS MOUNTED MICROSCOPES.

Just arrived, another lot of those Brass Mounted Microscopes. Just the thing to examine fungus in wheat, mites on trees, shrubs, etc. Sent free to any address on receipt of (\$1) one dollar greenbacks, postage stamps or silver.

Address, CHAS. P. KIMBALL.

513 Hayes Street, San Francisco, Cal.

FOR **FRUIT,** FOR **ORNAMENT**
FOR **TREES** FOR

PLEASURE, PROFIT,

WHOLESALE AND RETAIL.

Pears, Apples, Cherries, Peaches
Plums, Quinces.

Small Fruits.—Grapes, Currants, Raspberries, Blackberries, Strawberries, Gooseberries.

Ornamental.—Weeping and Standard Trees.

Evergreens.—Common and New and Rare.

Shrubs.—Variegated-leaved and Flowering.

Roses.—Moss, Tea, Climbing and Perpetual.

Clematis Jackmanni is perpetual, hardy, lives easy, grows fast, and flowers the first year.

12 sorts Perpetual White Clematis and fifty new varieties of many shades of color. Strong plants safely sent by mail.

Good Plants sent by mail, post-paid, as follows:

6 Choice Roses for \$1.00 13 Choice Roses for \$2.00

6 Variegated-leaved and Flowering Shrubs for \$1.00

13 Variegated-leaved and Flowering Shrubs for \$2.00

500 Acres } T. C. MAXWELL & BROS.,
of Nursery } Catalogues Free. Geneva, N. Y.

Dewey & Co. { 224 } Patent Ag'ts.
{ Sanson St }

FARMERS, ATTENTION!

CASH.

SHORT CROPS.

Whitcomb's Wheeled Wire Rakes...\$25 00
Coates' Lock Lever Wire Rakes.....\$30 00
Excelsior Junior Mowers.....\$80 00
Excelsior Medium Mowers.....\$90 00

THE ABOVE PRICES ARE

[Cash With the Order.

As Crops are Short we desire to give Farmers the benefit of the above Low Prices.

Address,

BAKER & HAMILTON,

SAN FRANCISCO.

How To Paint

A New Work by a Practical Painter, designed for the use of Tradesmen, Mechanics, Merchants, Farmers, and as a Guide to Professional Painters. Containing a Plain Common-Sense Statement of the Methods employed by Painters to produce satisfactory results in Plain and Fancy Painting of every description, including Formulas for Mixing Paint in Oil or Water, Tools required, etc. This is just the Book needed by any person having anything to paint, and makes

"Every Man His Own Painter."

Full Directions for Using White Lead—Lamp-Black—Green—Yellow—Brown—Whiting—Glue—Pumice Stone—Spirits of Turpentine—Oils—Varnishes—Furniture Varnish—Milk Paint—Preparing Kalsomine, etc.

Paint for Outbuildings

—Whitewash—Paste for Paper-Hanging—Hanging Paper—Graining in Oak, Maple, Rosewood, Black Walnut—Staining—Decalcomants—Making Rustic Pictures—Painting Flower-Stands—Rosewood Polish—Varnishing Furniture—Waxing Furniture—Cleaning Paint—

Paint for Farming Tools

—for Machinery—Household Fixtures, etc.

To Paint a Farm Wagon

—to Re-Varnish a Carriage—to make Plaster Casts. The work is neatly printed, with illustrations wherever they can serve to make the subject plainer, and it will save many times its cost yearly. Every family should possess a copy. Price by mail, post-paid, \$1. Address

DEWEY & CO.,

San Francisco, Cal.

Publishers of this journal.

Members, Dewey & Co., San Francisco.—Please find enclosed post-office order, for which please send Mining and Scientific Press. I have been a close reader of the Press for three years, and regard it as the foremost mining periodical in the Union. I am glad to notice the circulation of the Press is increasing here and is highly prized by our best mining men. H. P. Central City, Colorado.

Calistoga Real Estate Company.

Calistoga, with a population of about 800 persons, is a village watering place at the head of the valley of Napa, in California. It is four hours' travel north of San Francisco by steamboat and rail.

Its shipping port is Vallejo, on the bay of San Francisco, forty miles distant by rail. It lies at the head of the most charming valley in the State.

THE BEAUTIES OF NAPA.

In traversing this thirty-seven miles of fertile dale, the eye never wearies. If one ascends the sides of the leafy mountains that bound the valley on either side, whether looking up the valley or down, and from whatever point of view, the scene is one of ravishing beauty.

Mounting the summit of St. Helena, which towers over all, far to the east the snowy Nevadas bound the view; and to the west spreads the Pacific ocean, with its winged ships and its blue horizon. To the north are the vast forests of Mendocino, its stately trees, turned to shrubbery and Clear Lake in its pride of expanse dwindled to a mill dam.

THE WARM SPRINGS.

From the beauties of Calistoga we turn to its other attractions. The estate covers 2,000 acres of fertile land. Its warm springs are crowded with invalids, who flock to its healing waters, and who return cured of their rheumatism, their dyspepsia, their torpid livers and their tender kidneys. The medicinal elements of the hot springs are principally iron, magnesia and sulphur. In this climate, the season of water ing pleasure is prolonged.

THE SURROUNDINGS.

By consulting a map it will be apparent that Calis-

toga is destined to become a commercial town of importance. It is the center to which converge innumerable highways leading to many of the richest cultivated valleys of California.

INDUSTRIAL ENTERPRISES.

A new industry is now being introduced at the head of the valley of Napa, which will give easy employment to all the boys and girls, and contingently it will support other new industries. It is but the beginning of many others. Three miles below Calistoga is selected as the site of a large factory for saving and canning fruits and vegetables test now go to waste, and encouraging the production of more. In no part of California can these healthful elements of human food be cultivated more cheaply or more abundantly. Considering the depth of its rich soil, its prolonged season, and the extraordinary vegetable growth in this country, one acre may be considered equal to three elsewhere this industry is carried on in the Atlantic States. If irrigation be wanted, artesian waterflow may surely be found all along the valley, for it is backed by mountain ranges full of living waters.

MINES:

GOLD AND SILVER AND QUICKSILVER.

Calistoga is the center also of a great mountain range rich in mines of cinnabar and silver. Already its furnaces are producing mercury, and the product is increasing yearly. A number of valuable mines are now being profitably developed in the region around the base of Mt. St. Helena, at Pine Flat, on the Great Geyser road, and near Sillies' Mill, on the Clear Lake road. All of these are from ten to fifteen miles beyond Calistoga, to which point their products come, and from

which their supplies are carried. The deposits of cinnabar occur in well defined veins, and as they are now being scientifically developed they bid fair to rival in productiveness the celebrated mines of New Almaden.

CALISTOGA REAL ESTATE CO.

The splendid property above described, containing 2,082 acres, divided into town lots, suburban lots, country seats, hotel property and farm tracts, has been bought by the above named company, and is now offered for sale to the public.

The Capital Stock of the Company is

\$1,000,000,

Divided into 20,000 Shares of \$50 Each.

The sale of a certain number of shares has been authorized by the Board at the rate of

Twenty-five Cents on the Dollar, Making

12.50 Per Share.

By an arrangement between the former owner and the present company, no portion of this land or the proceeds of its sale, is consumed by expenses or in even the smallest degree diverted from the use and benefit of the stockholder.

Whoever buys Stock in the Company receives his pro rata share of this property, with its Crops and Rents in the meantime, without one cent of deduction for expenses of any kind, even including Taxes. And

this, too, no matter how valuable the property shall become.

Unlike the homestead schemes which have heretofore attracted our people, this plan gives homes and interests in and adjoining a town already built; where trade and growth are already assured, and where daily increase gives promise of greatly added values to all its property. It is a division of this ripened heritage that is now offered to the subscribers.

TRUSTEES:

E. W. BURR,
President Savings and Loan Society.

C. HARTSON,
President Bank of Napa.

J. B. FRISBIE,
President Vallejo Commercial Bank.

JULIUS WETZLAR,
Pres. Capital Savings Bank, Sacramento.

COLONEL J. P. JACKSON,
San Francisco.

WILLIAM H. MARTIN,

GENERAL AGENT.

No. 1 Webb Street, Cor. California, S. F.

PACIFIC RURAL PRESS

Volume IX.]

SAN FRANCISCO, SATURDAY, MAY 8, 1875.

[Number 19.]

Improvements in Box Making.

Rarely do we visit Swan's Union Box Factory without observing something decidedly new and practical in connection with box making. On a recent visit, after an absence of only a few weeks, we found in active operation two decided improvements, both of which had their origin in this factory.

The first of these is Swan's Patent Automatic Nail Driver. By means of this machine one man can perform the work of ten men with hammers and that in a manner perfect in every respect. It is adjustable to any sized box, from three inches to as many feet; those upon which it was working during our visit were about six inches wide, having three small nails to the joint. It will drive a tenpenny nail equally as well as the smaller sizes. The nails are placed indiscriminately upon an inclining platform above the machine, and by the continual shaking of this platform they are thrown into hoppers—each hammer has a hopper—and from these they are delivered into the slotted feeding track, heads upward. In this track they are conveyed to the hammers, one at a time, and by one quick movement they are each and all driven to their destination. All of the hammers, with the exception of those connected with whatever nails are wanted for the box being made, are thrown off duty; and those in operation are subject to the control of the workman. The belt that conveys the power to the machine is a "tight and loose pulley combined." By a slight twist of the foot a wedge tightens the belt, and the hammers that are on duty strike a quick blow on so many nails, and the joint is closed at once. The workman has the parts of boxes piled within reach, and as fast as he can place the pieces under the automatic drivers, the nails, whatever number is wanted, are driven in as quick as you can say "Jack," leaving off the surname Robierson. Nothing in this successful establishment has been a greater success than the automatic nailer.

The other improvement to which we refer is a Trimming Belt, by means of which the end of the box is trimmed nearly as rapidly as each joint was fastened together by the automatic driver. The apparatus consists simply of a wide, heavy emery belt, which forms a rapidly revolving table, upon which the box is held, for a moment only, and is taken off neatly trimmed; as nicely as a smoothing plane could do it. It is no respecter of knots or other obstructions.

Still Another Vegetable Fiber.

Our agent in Nevada county sends us samples of a fiber obtained from a weed found in the foothills of California. It is of very even, continuous texture, and remarkably strong. The Indians use it for making snares for game, nets, lariats, etc. The weed grows in low, moist soil, reaching a height of from three to six feet; its diameter ranging from one-eighth to one and one-fourth inches at the ground. The Indian name for it is *Poo*. The fiber is between the bark and the woody part of the stalk, and is readily freed from both. It is of a bright, light brown color. Accompanying the fiber is a piece of cord made from it about the size of an ordinary fish line, and for this and similar purposes this fiber would, it strikes us, be well suited.

The question is asked of us, "Can it be utilized?" The fact that the Indians have turned it to the uses mentioned above should be accepted as a satisfactory answer to this question; but whether it may become of any commercial value is another matter. There are already several partially developed vegetable fibers claiming the attention of manufacturers, and this would, perhaps, make it difficult for a new claimant to secure the attention which it might merit. There is scarcely a doubt that these native and cultivated vegetable fibers will in time become the source of great profit to California, both from their intrinsic value and as an adjunct to manufacturing.

Pork Prospects.

This is another product in which California is undoubtedly deficient the current year. Wilson, Merry & Co., pork packers and provision dealers of this city, inform us that they are now paying 7½ cents per lb. live weight, for first class hogs. It is admitted by those who are posted in these matters that hogs will be scarce throughout the season. If the farmers of this State could sell their live hogs at even five cents per lb. at home, they would find this

the commercial wants in this matter, and it is evident that a well established market, and improved facilities for reaching it, are important considerations at the present time.

"ARE THERE ANY POULTRY YARDS IN CALIFORNIA?"—Mr. Chas. M. Ely, of Weston, Umatilla county, Oregon, has probably heard that the *RURAL PRESS* is first-class authority in matters pertaining to agriculture, but he is evidently not a reader of our paper, or he would not have taken the trouble to write to us, asking



BEURRE COIT PEAR.

a good paying product; but the high priced and poorly arranged freight system, so detrimental to agricultural prosperity generally, is particularly so in this case. The railroad freights on live hogs are high and the accommodations are poor. San Francisco must necessarily become the great pork packing center of California. The climate here is such that packing can be done at all seasons of the year; while in some of our best pork producing districts—Los Angeles county, for instance—killing is hardly practicable at any season on account of the heat.

There is something radically wrong here. While we are being burdened with a surplus in most other farm products, pork, one of the most staple of them all, is not produced here in sufficient abundance to half supply our own needs. Farmers are by no means altogether to blame for this short coming of the pork crop. They are eager to increase the production of anything that will return a fair remuneration, but an expensive and poorly organized system of transportation, with some other objections which are also subject to modification or entire removal, have kept this production in check.

Such an establishment as that of Wilson, Merry & Co. will do much toward supplying

"whether there are any extensive poultry yards in California where a person can procure eggs of several of the best breeds of fowls?" We have sent him a copy of this number of the *Press*, and if he will look at the advertising columns he will find notices of some of the best poultry establishments in this or any other State. When he orders a supply for his poultry yard, he should at once subscribe for the *RURAL PRESS*, in order that he can keep fully up with the times in managing his stock; for we are especially proud of this and other special departments of our paper. They contain a goodly proportion of fresh, original matter, contributed by parties who know what they are writing about.

AN EXCHANGE.—A lady sends us, from Chinese Camp, Tuolumne county, a package of wild coffee, grown in that vicinity, with the request that we send her some Eucalyptus seed. We forwarded the seed immediately on receipt of the letter, and herewith send our thanks for the coffee.

ACCORDING to the *Bakersfield Courier* the crop of alfalfa will be very large in that section and fall far short of the demand.

The Immigrant Bureau.

We have received a printed circular over the names of James Otis, I. Friedlander, C. Adolphe Low, C. J. Cressey, and John Morton, Directors of the newly established Immigrant Bureau, as follows:

There is ample room in our State for all that are arriving to find homes, and there is plenty of work for willing hands to do.

To those seeking agricultural pursuits, our broad plains and fertile valleys offer all that may be anticipated.

To those seeking grazing lands, our mountain regions and river bottoms will furnish abundant feed for grazing purposes.

Our irrigated districts, to those accustomed to raising corn and other Spring grain and vegetables, will furnish homes and employment to many.

As our population increases, our irrigating ditches will increase in number. There is very little of the soil of California that may not be utilized.

By the information we expect to give through this Bureau we anticipate no difficulty in finding homes and employment for all who may come.

The Bureau is not created for the purpose of aiding any ring or combination of land-owners, but solely for the purpose of guiding immigrants.

The simple object of the Bureau is to protect the interests of immigrants, give correct and reliable information free of charge; and since the bureau will be in correspondence with reliable or similar bureaus throughout the State, it cannot fail to accomplish the object intended.

The committee has appointed J. Earl, manager, and I. G. Gardner, assistant manager. The temporary offices are at No. 6 Leidesdorff street; the permanent office will be at No. 125 California street, and will be opened on the 15th. No charge will be exacted for the information given.

A Late Summer Pear.

For our fruit illustration this week we give a fine cut of the "Beurre Coit Pear." The fruit is above medium size. Form, obtuse pyriform, slightly angular. Color, rich brown russet, mostly overspreading a yellow ground, with a brownish red cheek in the sun, with an occasional lip like at its juncture with the fruit. Cavity shallow, with unequal projections. Calyx, with segments nearly erect, surrounded by depressed, crescent-shaped furrows in a shallow basin. Core, small; seeds, blackish; flesh, yellowish-white; melting, buttery, juicy, sweet and vinous. Season in California, August. The tree is a hardy, vigorous, upright grower, becoming spreading as it matures, with dark brown shoots, and broad, waved leaves, with rounded serratures. It is productive and comes early into bearing on the pear roots. It originated with Colonel H. H. Coit, of Euclid, Cuyaboga county, Ohio, and is of such excellence as to deserve a place in all collections.

A VALUABLE REMEDY.—In our Poultry Department two weeks ago we published a letter from a lady subscriber showing the efficacy of a course of treatment prescribed for her fowls by M. Eyre, Jr., of Napa. The principal remedial agent employed in this case was Labbaraque's solution. Mr. Eyre kindly sends us the following formula for making this solution, and adds: "The treatment should be continued until all vestige of the disease shall have disappeared." Formula for making Labbaraque's solution:—Dissolve one-half pound common washing soda in a pint warm water, also one-quarter pound chloride of lime in three pints warm water, mixing gradually until smooth; after standing a few hours, unite the two mixtures, shake once or twice, let stand till clear, and then pour the supernatant fluid into a bottle to be tightly corked, and out of the heat or sun. One half gallon need thus cost but about 15 cents.

MODEST Mariposa, as the *Gazette* thinks, has only to offer her independence and a place where any one can come and acquire competence by the usual appliances of industry and frugality.

CORRESPONDENCE.

From Merced County.

MESSENGERS. EDITORS:—There has been considerable said about the west side of the San Joaquin river in regard to a canal and irrigation, but nothing done or said yet, comparatively speaking, as to what there is to do or should be done. Now, I think we are all ready and willing that there should be a canal here. We are, after so long a time, being convinced that our county will not produce grain without irrigation. Many of us have been farming here for six years; and in that time we have had two crops which returned us a good yield, while the four years' failure, or partial failure, has consumed the profits of the other two; so that it is useless, or unratified, that we should go on in this way, expecting a full crop of grain when the seasons will not admit of it. We have the land here that will produce wheat or barley which will compare in quality or quantity with any of the valleys of California, if we only had the water. We have all the evidence necessary to prove what our land will grow, by the canal we have, whose waters only extend to the border of the farming lands. Pass through our valley now from the lower part up to the canal, and you will see the contrast; you can see what irrigation will do; the heavy and rank growth of wheat and other vegetation is not withered and dead. During the winter and spring when the ground was wet our grain grew rapidly, but as the ground became dry by the winds and absorption of the growth it had on it, it began to wither, until now our plains have that brown cast which autumn brings. But from here we will go to the canal and what meets our gaze? We don't see that brown, sterile look. We see beautiful fields of grain which promise a good yield, and streams of water coursing along down to that beautiful garden, in which you can see a variety of vegetables of the finest and best quality. This is what irrigation does; and that is what we want, and must have before we can successfully make this a farming county.

This Golden State of ours is pre-eminent to any of its sister States in agriculture. It is pre-eminent in the verdure of its plains, in the beauty of its forests, in the diversity of its climate, the freshness of its fountains, the sparkling flow of its streamlets, and in the beautifully gliding currents of its rivers. We have done much, but there is yet infinitely more to accomplish. The population is increasing rapidly. They come from all parts of Europe and our republic. We should welcome them and give them employment. The field of improvement has only been entered, not explored. The valleys are still green with verdure, the plains sparkle with the wealth of produce, and invite the persevering and intelligent to come and improve and reclaim our valley.

J. L. H.

Cottonwood Grove, April 17, 1875.

An Arizona Flower.

EDS. PRESS:—I enclose you a sample of a little flower, found at this season in our mountains. I am not a floral scholar, but have been attracted to this little blossom by the purity of its color, its delicate proportions, its fragrance, and most of all by observing that it was not to be met with until after sunset each day. I hope it may interest you sufficiently to induce you to give the readers of the PRESS its proper name, etc.

Yours truly,

W. F. HENNING.

Cerbat, A. T., April 11, 1875.

[The above flowers did not arrive in as good condition as we could have wished; still the contour of one or two was sufficiently preserved to give an idea of their size, proportions, etc., while the strong but pleasant odor was fully retained—the paper being fragrant after the flowers had been removed. After showing the flowers to botanists and druggists, we concluded that the plant is the water fennel, or fine leaved water hemlock.—EDS. PRESS.]

Crops and Stock in Sacramento County.

EDITORS PRESS:—Crops here are not near so good as farmers expected. The hard frosts in the first part of this month have injured some early grain. Generally, in this part, I think there will not be much above a half crop, on account of drought; hay is, perhaps, still less. In this vicinity the stock business is greater, perhaps, than the farming interest. There are five dairies, numbering in the aggregate about four hundred cows. Brother John Brewster keeps a small herd of thoroughbreds.

I see from the PRESS that Mr. I. C. Steel has lost quite a number of cows from bloating—the effects of clover—and suggest feeding hay as a remedy. I have had as high as ten or fifteen bloated at a time, and this to some extent occurring daily during the time the clover is fresh. I use boiled linseed oil, and give from a gill to a pint or more, according to the case. I have lost but one this season, and that was dead when found. I use the knife only in extreme cases.

B.

Galt, April 25.

The Foothills for Immigrants.

MESSENGERS. EDITORS:—The papers from different sections of the country have freely expressed themselves regarding the large immigration heading towards California, some recommending the plains and others the foothills. Those who may seek the foothills will do well to come prepared to make a settlement, or purchase some of the many places for sale at a low figure. No use for "broken men" coming to the foothills, expecting to get employment. That day has gone past—a very limited number only can be employed. Still they can find employment, and homes too, if prepared to labor. Having a capital of a few hundred dollars, comfortable homes may be established and the wealth of the foothills augmented. It requires a small capital to procure a team of horses and wagon, a very necessary requisite for outside jobbing, which may be procured to pay current expenses. Those without capital should seek employment among the farmers; harvest time requiring an extra number of hands.

But the great bulk of the immigration must find settlements of their own. I know many desirable locations in Tuolumne county only requiring the able and willing hand to do, to make comfortable homes. Only those having the necessary qualifications must purchase the right of possession from the moneyed drones who will not or have not the ability to labor. I know good land going to waste, houses going to pieces, gardens exposed to the ranges of stock, the owners waiting for the expected purchaser. All of which may be purchased on reasonable terms.

I will cite a case in proof of the above statement: A young, strong, and willing to work man started from Massachusetts, with a letter of recommendation to a mutual friend amongst the foothills. Like many more this friend was able to live comfortable himself, but could not adjust the new corner according to his expectations. He then took up his line of march for the plains. Without one cent of money—all being expended on the trip out—of course such a man is supplied by many side houses with eatables. But it is to give a note of warning to "broken men" not to seek the foothills, except prepared "to go it alone," and if they are prepared, they will find the climate unsurpassed. Water, wood and hills all around, and some cosy glens, whose native attire invites the settler to rest, plenty and quiet content.

I have remarked more than once that many of the settlers among the foothills were ill adapted for such a life, being mostly made up of miners, who built a cabin, planted a small orchard and scraped a living by working the placer diggings. As the land came into market they secured their own one hundred and sixty acres, extending farming operations by a few cows, chickens and hogs, satisfied with having their daily wants supplied. But as for knowing or trying to farm on true principles, it was entirely out of the question. This class is always ready to sell and the sooner they sell to this same immigration the better. Land is still cheap among the foothills. A man will get more for his money here than anywhere else in California; and must depend on his own exertions to bring the value which labor and industry is entitled to. Let the man of moderate means seek the foothills, "broken men," the harvest fields, and the rich man will gravitate to cities any how.

J. T.

Mt. Pleasant, April 31, 1875.

P. S. The fruit crop is worse off in Tuolumne county than your first statement after the frost. I have not a dozen peaches in my garden. Apples and pears not one-half what there should be. The fig trees are just coming into leaf. The whole tree seemed to be blighted. The effects of the frost is universal in this county. I am afraid that the second crop will be short for lack of new wood to mature the fig.

J. T.

From St. Helena, Napa County.

MESSENGERS. EDITORS:—Our crops, both early and late sown, are generally looking well; and with a little more rain, a good crop is assured. A north wind has been blowing for some days past, which is drying the ground very fast, and will result in injury if it continues much longer. These winds will doubtless prove disastrous to the crops in the San Joaquin and Sacramento valleys. Some of the early sown barley in this vicinity is headed out, and, if cut for hay, will be ready for the mow in a few days.

Fruit.

Our crop of peaches, plums and almonds will be light, owing to the excessive thinning of the late frosts; apples, however, will be abundant. Our leading interest here is grape growing, which promises an abundant yield this season. We learned a lesson in 1872, and pruned late this year. Our "vintners" are finding a ready sale for their vines. Heavy shipments are being made every few days to points East by Carver & Phillips, Chas. Krug, T. A. Giaque and others.

Improvements.

Our beautiful village is growing rapidly this spring. A seminary, two concrete stone buildings with spacious halls overhead for the Odd Fellows and Grangers, and many residences in town and suburb are being built. Lands are being divided up to suit purchasers, and are readily taken at prices ranging from \$200 to

\$250 for lots of a single acre. This sudden outburst of prosperity may be partly attributed to our being located in close proximity to untold mineral wealth, hid away in the recesses of our beautiful mountains.

The following minerals have been discovered within a few miles of this place: Gold and silver (combined), quicksilver, copper, chrome and alum. A chrome mine was recently sold to a Baltimore company, located in Chiles valley, twelve miles from here.

A silver lode was discovered last fall on the premises of Mrs. Boum, and is partly owned by Dr. Charles Langley, wholesale druggist of your city. This is about 1½ miles from St. Helena.

Immigrants.

I am glad to see so much interest taken by our citizens in the welfare of the newly arrived immigrants. I see by the papers that the Sacramento Labor Exchange has made arrangements for affording employment for twelve hundred of them on the new El Dorado ditch, and that no Chinamen will be employed upon it. I also see by the RURAL that some of the enterprising merchants of your city see the importance of providing them with work and the selecting for them of localities suited to their taste and means, for homes.

This is a move in the right direction, and I hope others will not be slow to see its importance and act accordingly, that we may reap the full benefit of our increasing population. It is to be hoped we will profit by the experience of six years ago, and try to keep them amongst us, and in a very short time the "heathen Chinese" will no longer be needed, and the "Coolie" problem solved.

J. M.

St. Helena, Napa Co., April 26, 1875.

An Intoxicating Grape.

MESSENGERS. EDITORS:—Will you or some of your correspondents enlighten a constant reader, as well as readers generally, through the columns of the PRESS, about a kind of grape said to be grown in this State, the ripe fruit of which on eating, it is alleged, produces intoxication similar to alcoholic liquors? The reason why I trouble you is because of your correctness and reliability. I have heard considerable about this intoxicating grape, but am very incredulous about its having that quality. I am not a subscriber to your paper, but am living with R. Findley, who is, so I get the reading of it. I am lately from the East and am acquainted with many papers East and West; yours, for the sphere it professes to fill, is the very best I ever came across.

Yours respectfully,
READER.

Healdsburg, April 29, 1875.

*[Like our correspondent, we are very incredulous about there being a grape possessing this property; still, it may be, for there are plants that are known to possess it. If any of our readers are acquainted—not too intimately—with such a grape, we should be pleased to hear from them. They will, of course, understand that we have no desire to realize the effects attributed to it, but if the demon intemperance has taken up his abode in our delicious fruits we ought to know it, so that the abstinence pledge shall include intoxicating fruits as well as intoxicating beverages.]

Our complimentary friend places the RURAL Press in just the position for which we have been striving to fit it; and we confess that there is no class of men whose commendation would be more acceptable to us than the farmers who work for other farmers. This is the severest test to which a practical agricultural journal can be put.]

It Pays to take the "Rural Press."

EDITORS PRESS:—A subscriber to your paper, who practices what he reads, Mr. John Darra, of San Joaquin county, says it pays to take the RURAL PRESS. He says, "I got one recipe out of the RURAL last summer that has been worth many years' subscription to me. My chickens were ailing and constantly dying from some cause which I could not find out. One hen lost twenty-seven chickens before they were six weeks old. I doctored them for lice; they became baldheaded and the throat choked up. After seeing an article in the RURAL last summer, describing the disease which I found affected my chickens, a large quantity of small worms in the throat, and recipe for curing the same, I bought four bits' worth of sulphur and put three teaspoonsful in each nest when setting the hen, and after using the sulphur the symptoms all disappeared. I have raised \$50 chickens this spring, and have not lost any except some half dozen that were killed by accident. I have used several other recipes taken from the RURAL, one of which was to soak sweet corn in water with a small quantity of saltpetre just before planting, to prevent its destruction by worms. I used the same corn for ten years past and have lost more or less every year; the worms have entirely disappeared. Another recipe is to soak cabbage seed a few minutes in spirits of turpentine; this has saved my cabbage from destruction by ground lice, which had destroyed a large portion of my cabbage for four or five years past. One year I lost all my cabbage from this cause; since I used the above receipt I have had no further trouble."

Mr. Darra is a man who practices what he reads. Other readers of the RURAL will do well to follow his example.

J. W. R.

From Westminster, Los Angeles County.

EDITORS PRESS:—I believe a letter from this colony or settlement has never appeared in your columns. At the earnest request of Mr. Knox, your traveling agent, I agreed to write a short sketch, which he assured me would be acceptable, though the *New Italy* for April more than intimates that anything of a laudatory nature from Southern California will find its way into the waste basket. Nevertheless, I shall keep my word, believing that the RURAL is not a sectional paper, and that it will publish the truth at all times.

Westminster colony is situated six miles southwest of Anaheim and about the same distance from Anaheim landing. The climate is good, healthy and salubrious, about the same as that of Alameda county, excepting we do not have so much rain here. Sometimes we have ice, and this winter has been much colder than usual. In 1871 there were but a few families here, and the settlement hardly had a name; but the numbers increased rapidly, and before the summer of 1872 a large acreage had been planted to barley and corn. The barley yielded quite well, but the corn was nearly a complete failure, because we had no late rains, and no means of irrigation. Many were talking of abandoning the settlement, but an enterprising citizen demonstrated that water for irrigation could be obtained through the medium of artesian wells. This fact inspired us with new hope and all who had the means had wells bored. The change is now wonderful. The once barren plain now blooms and blossoms like the rose, and the waste places are made glad with gushing streams and bubbling fountains. The number of families has increased from ten to nearly two hundred, and more are coming all the time. Our soil is even more productive than we anticipated; and so far nothing in the fruit, vegetable, or cereal line has failed to yield its fruit excepting wheat. The rust is sure to destroy wheat. Our fruit trees do finely; and already we have produced some fine peaches, nectarines and apricots, while our pears, plums and apples give every appearance of yielding abundantly. We have been enjoying an abundance of strawberries for a month, and our currant bushes were full of blossoms when the frost came; as it is, we will have quite a crop.

Our chief reliance here is corn, barley, potatoes and pumpkins. I do not think we can raise as large crops of barley as are raised in some portions of the State, yet it is a good crop. We depend mostly upon our corn, often getting more than one hundred bushels to the acre, but generally averaging from sixty to eighty bushels according to soil and mode of cultivation. I will not attempt to estimate the amount of pumpkins and beets raised on an acre of ground, but the number of tons is immense. We raise them for hog feed; used in conjunction with corn they fatten hogs very rapidly.

One objection to much of this country is that the land is spotted. You can hardly find a quarter section of land that is uniform in quality. Often the land is streaked with alkali. To insure a crop of corn it all needs irrigation, except some of the very lowest places, usually called swamps. I see, by reading over the last few lines, that I am not confining my remarks to Westminster, but am writing concerning the whole county, but as nearly as I can judge Westminster is a sample of all of the places in soil and productions. In this part of California the first thing to be desired is water sufficient for irrigation.

When old Boreas elevated his horn and blew his icy blast he did not leave us out. Semi-tropical California had a touch of the chills without the fever attachment. Our peaches, apricots and nectarines were destroyed, our grapes were seriously injured, but we cannot yet tell the amount of damage done. As far as heard from our apples and pears are uninjured. For a while it was thought that late sown barley was completely destroyed by the cold, dry wind; but although we have had no rain the nights have been cool and moist. The air was so moist that we could feel small drops of moisture and in the morning the grass would be as wet as if there had been quite a shower. This kind of weather is quite common in May and June, and aids the growing crops materially. The effect of this mist on the young grain has been quite marked, and where we expected absolutely nothing we now anticipate obtaining quite a crop of hay at least.

But I expect I am occupying too much of your valuable space, so will close, and if this is favorably received I will write again soon about the progress of our store, Grange, price of wells, land, etc.

Con Howe.

Westminster, Los Angeles Co., April 26, '75.

ENQUIRIES ABOUT GRASSES.—EDITORS PRESS: Please inform, through the columns of your paper, which is the best kind of root grass affording the most food for stock, assuming of course that alfalfa stands first, and oblige

YOUR SUBSCRIBER.

Bakersfield, April 27, 1875.

[If the soil is heavy we would recommend Australian perennial rye grass. If it is bottom land, timothy or Kentucky blue grass would perhaps do best.—EDS. PRESS.]

THE HORSE.

Curb or Colic in Horses.

MESSRS. EDITORS.—Your correspondent McJ. makes an inquiry respecting an ailment in horses. He thinks his own young horse has curb. His account of it is a little indefinite. One might think, by his saying it was above the fetlock, he referred to the ankle joint as the seat of the malady, while curb is a diseased state of the parts of the hockjoint.



The above two diagrams from "Mayhew's Complete Horse Doctor," here figures the distortion in question at the point A. By contrasting this with the other outline which delineates a natural leg with a "clean hock," a person will be able to recognize the mischief; and once seeing it, it is never forgotten. It is a disease of young horses, and results from severe exertion or over-exertion. Mayhew depicts a horse with his rider, the former in an attitude both barbarous and classic, of balancing on his hind feet; and refers to this position as an active provocation to the disease. Yet this or that kind of exertion is of small consequence in itself; but when you add to stress of exertion fatigue and sudden change of temperature, which is always from higher to lower, curb and colic, as well as many other of the maladies of horses are likely to follow within a period of a few minutes to a few hours. Sub-acute inflammation (sometimes acute) of tendon or tendinous sheath of the synovial membrane, sometimes both of the hock joint constitute curb.

Do not blister or use harsh applications. Rest and time are remedies. Mild stimulating liniments applied with the hand, combined with careful rubbing with the hand accelerate restoration.

Many valuable horses are annually lost for the lack of a little useful knowledge timely employed. Without detailing the diagnosis and pathology of colic, I desire to set before the numerous and I notice appreciative readers of the PRESS, a safe and easily administered remedy for this sudden malady. When I say remedy, I mean all that term is held to comprehend, save one; it cures; it does not merely help, or palliate, or soothe, or mitigate—it cures. Under it the pang lets go in half to three-quarters of an hour's time and the subject is soon restored. But it does not cure so effectually that the disease may not return under like provocation.

Of several cases that have come under my studied observation, permit me to relate one only as illustrative and instructive. Riding horseback one dark, autumnal night about ten o'clock, my horse laid down in the muddy road. In a few minutes a man with a lantern came up and proffered aid. I soon discovered my beast was suffering from paroxysm of colic. To have gone on would have been at first cruel and soon impossible, for the tendency of horses is, in this distress, no sooner obeying your call to get up than they lay down again and roll over.

Medicine on hand, I took as I judged about one grain and a half of sulphate of morphia like a pinch of snuff between the thumb and finger and spread it over the animal's tongue, rather far back in the mouth. There is no concern that the medicine may not be swallowed; it is immediately absorbed into the blood, for the creature cannot spit it out, nor avoid getting the happy effect of it. In half an hour the animal was free from pain and I went home.

It is a piece of inhuman folly to urge horses to move about during a fit of the colic, as is sometimes done. They should have their freedom and access to a soft bed. Two grains of morphia would not be a dangerous dose for a horse in this disease. H.

SHEEP AND WOOL.

Eastern Wool Market.

NEW YORK, May 1.—The Wool market has developed no new features. The light receipts of new spring California, owing to the break in the Pacific railroad, has given to fall a much firmer feeling, and very fair business has been consummated. New Australian continues weak, and to-day a good lot can be purchased at 50c. The market as a whole still wears a look of depression, as the goods market has not improved, and the prospects for an early revival in that line are very vague. The sales are: 425 bales Australian at 50@53; 353 do Cape, chiefly for export to Canada, at prices equal to 35c, currency; 4,000 lbs unwashed Greek, 18½c; 1,065 bales fall California, 17@23c; 60,000 lbs spring do, 24@31c; 150 bags scoured do, 65@

67½c; 16,000 lbs Colorado, 25@32½c; 75,000 lbs Texas, 22@33c; 4,000 lbs No 1, X, and XX Ohio fleece, 54@56c; 100 bags super pulled, 46@48½c; 2,000 lbs X do, 50c; and 50 do combing do, 25 do super do, 8 do black do, 170 do X do, and 20,000 lbs medium unwashed Western fleeces, on private terms.

Boston, May 1.—There has been no important change in the Wool market. Sales of fleece have been made at previous rates, but there is a pressure to sell on the part of holders, and all are anxious to close up their stocks as fast as possible, and to do so are willing to meet buyers on favorable terms. These remarks apply, however, only to fine fleeces and odds and ends usually to be found at the close of the year. Medium fleeces and combing and delaine selections continue to command extreme prices, and are scarce and difficult to find. A small lot of domestic, only 3,500 lbs, has been sold at 70c, and this is the highest price yet obtained. Pulled Wools are not so firm, and extreme grades are particularly dull, sales in many instances having been made at a concession of 1@2c B. There is, however, a pressure to sell all kinds of pulled as far as received, as holders appear to have no confidence in the future of the market. Transactions in pulled Wools have been the largest for some weeks, comprising upward of 400,000 lbs, but the demand has been almost exclusively confined to fine and light super, to take the place of No 1 fleece, now so difficult to find. The fact, however, that so large a business has been done in pulled Wools on a comparatively dull market, shows that some concession must have been made to induce manufacturers to operate as freely. Business in California Wool has been fair, amounting to 285,000 lbs, at prices ranging from 16@25c for fall and 30@35c for spring. Sales of new spring, in most instances, barely cover cost.

Sheep Raising.

Parties in the upper and northern portion of the State, and in the East, having heard of Tulare as a great sheep and wool growing county, are coming here to go into that business. They are too late by several years if they depend on out ranges. There are now plenty of sheep in this county for the wild spontaneous grasses, and men who anticipate going into the sheep business will do well to go somewhere else unless they have capital to buy land and raise alfalfa for grazing purposes. There is a large quantity of land suitable for that purpose in the county, and when seeded will be very valuable. Alfalfa will graze fifteen sheep to the acre, while the same amount of range on the plains will graze but one. From this it is apparent that it does not require much land to keep an ordinary band of sheep. It is not thought advisable to keep more than 2,500 in one band, and that number, if in an alfalfa pasture, would require but a very small tract of land. Wool growing will be most profitable when people can be induced to raise a finer grade of sheep and grow alfalfa instead of trusting to good seasons and free grazing—Tulare Weekly Times.

International Exhibition, 1876.

Bureau of Agriculture Circular.

The Centennial Commission, realizing the importance of the agricultural interests of the United States, and anticipating the demands that will be made for a proper representation in the International Exhibition of 1876, is making ample provision for the accommodation of this department.

It has been organized as one of the bureaus of administration of the exhibition, and will comprehend the native and cultivated products of the soil and of objects more directly derived therefrom, agricultural machinery and farm appliances.

The building, most eligibly located in Fairmount Park, will cover ten acres. There will be provided, also, ample and suitable accommodations for the shelter and display of live stock, which it is intended shall be exhibited during the months of September and October.

The exhibition will open on the 10th of May, 1876, and it is therefore necessary that those who desire to exhibit cereals, forage plants and tubers, should make their preparations during the present season.

This exhibition, being international, will bring together for comparison the best products from every quarter of the globe; hence, every effort should be made to give just evidence of the capacity of the varied climates, soil, skill in tillage, and the character of the live stock of the United States; whilst the mechanical aids to agriculture should exhibit ingenuity, excellence of workmanship and adaptation to desired ends. The classification will more fully make manifest the arrangement and comprehensiveness of this department. Applications for space should be made as early as practicable, on the forms which will be furnished by the Chief of this bureau.

The prompt co-operation of State, county, and other agricultural organizations, as well as of all individuals interested in the practice of rural science, stock breeding and forestry, is earnestly solicited.

Committee of the Centennial Commission on Agriculture:—Robert Lowry, N. C. Meeker, Lawrence Weldon, Robert Mallory, Eldridge

W. Little, Archibald Cameron, Andrew J. Dufur.

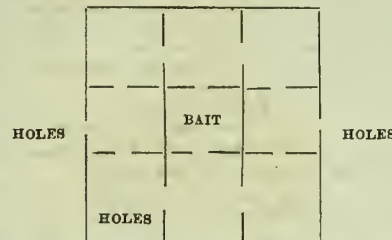
Resident Advisory Committee:—A. L. Kennedy, M. D., Paschall Morris, Charles R. King, M. D., Wm. B. Roberts, John R. Eby, Lewis Weldin, George Blight, William Brice, Thaddeus Norris, George I. Young, Charles L. Sharpless, John I. Bishop, Samuel C. Willets.

BURNET LANDRETH,
Chief of Bureau of Agriculture.
A. T. GOSHORN,
Director General.

A Vermin Trap.

An easily made and efficient vermin trap will be appreciated by every farmer. A correspondent of the *Country Gentleman* gives the accompanying figure, and explains it thus:

I make a box two feet square, four inches deep, and divide it into nine equal parts, as shown in the illustration. I put a cover on it,



with hinges, and make holes as marked; then put in some chaff and something to entice the rats or mice into the box. Any one using it will soon have the whole of the mice visiting the establishment. I have taken from one to thirty-three at a time in this way. It will be seen that the mice have to pass through three boxes before reaching the center one, where the bait is placed. It is by far the most effectual way of exterminating mice that I have ever seen. When the box is made on a large scale it is good for a rat trap. Mice and rats will often run into the box when disturbed in other places. When one wishes to kill the mice in the box, he has only to plug the two holes and carry the box in a clear open place. It is fun for boys with a dog.

USEFUL INFORMATION.

Recipes for the Shop.

PAINT FOR BURIED WOOD.—The simplest, and perhaps best, paint to prevent buried wood from decaying is made of boiled linseed oil, into which charcoal is stirred until the whole is of proper consistence. Apply with an ordinary paint brush.

COPPER ALLOY THAT WILL ADHERE TO GLASS.—The following alloy of copper will attach itself firmly to surfaces of metal, glass or porcelain: 20 to 30 parts finely blended copper (made by reduction of oxide of copper with hydrogen or precipitation from solution of its sulphate with zinc) are made into a paste with oil of vitriol. To this add 70 parts mercury and triturate well; then wash out the acid with boiling water and allow the compound to cool. In ten or twelve hours it becomes sufficiently hard to receive a brilliant polish and to scratch the surface of tin or gold. When heated it becomes plastic, but does not contract on cooling.

POLISHING COPPER OR BRASS.—Owing to the irregularities of surface, it often happens that considerable difficulty is encountered in putting a polish on articles of brass or copper. If, however, they be immersed in a bath composed of aqua fortis 1 part, spirits of salt 6 parts, and water 2 parts, for a few minutes if small, or 20 or 30 if large, they will become covered with a kind of black mud, which, on removal by rinsing, displays a beautiful lustrous under surface. Should the luster be deemed insufficient, the immersion may be repeated, care always being taken to rinse thoroughly. All articles cleaned in this way should be dried in hot dry sawdust.

Filing.

This seems an easy matter to the uninitiated. A simple thing to run a file over a piece of metal. This is far from being the case; for a skillful workman will, in a given time, cut away a far greater quantity of metal with a file than one who is unskillful, for he makes every tooth cut into the work, instead of rubbing over it. To do this, he must adapt the pressure and velocity of motion of the file to the coarseness of the teeth, and the hardness, brittleness, and toughness of the material he is working upon.

To file flat requires much practice; that is, to avoid rounding the edges of a narrow piece of work. Many apprentices find this a most difficult thing to do; in fact there are some who never succeed in filing, smoothing, and polishing without rounding the edges of their work.

The power of filing squarely and well is one of the marks of a good watchmaker.

In filing flat surfaces, it is quite an advantage to use a cork to rest the work upon when the form of it will admit of so doing—place the cork in the vise—use the file with one hand, the pressure on the file being communicated by the forefinger. It is mainly to aid the workman in filing flat that the rounded or bellied form is given to files.

Shrinking of Seasoned Timber.

The shrinking of timber works a greater detriment to the wheelwright than to the work of any other artisan, hence no one should be more thoroughly informed with regard to the character of the timber he is called upon to manipulate than the wheelwright. A late number of the *American Builder* contains some hints in this direction, which we give below:

The various kinds of oak, and some other kinds of valuable timber, will shrink more or less every time the surface is dressed off even a small fraction of an inch. Wheelwrights, accustomed to work in oak, are well aware of this fact, and a correct appreciation of it often enables them to turn out work of a superior character, even of ordinary materials, by first blocking out the pieces roughly, then allowing the timber to season, and afterwards working the various parts by degrees, as the seasoning process becomes more and more complete. White oak spoke timber, for example, may be allowed to remain in rough state half a score of years, under shelter, without becoming seasoned so thoroughly that the timber will not shrink after the spokes have been dressed out.

Carriage wheels have often been made of the choicest of oak timber after every spoke had been seasoned for several years, and, to the great surprise of the wheelwright, every spoke would work in the joints before the vehicle had run three months. The defect in such instances could not be attributed to inferior timber nor to perfunctory workmanship; but simply to this one circumstance—that the parts of the wheels were put together before the timber had ceased to shrink.

To prove that the best quality of oak will shrink after a spoke has been dressed out, let a tenon be made on one end and driven immediately into a mortise; after a few days' exposure in a warm workshop the spoke may be easily withdrawn. The same fact will hold good in the manufacture of woodwork of any kind where oak is employed for tenons. In order to make joints that will never start, the piece on which the tenons are to be made should be dressed over several times, until the shrinking has ceased. Then let the tenons be made. After these have shrunk, while exposed to the drying influences of a warm workshop, the spokes, or other parts, may be driven into their respective places, with the assurance (especially if they are dipped in oil paint previous to driving,) that the timber will shrink no more.

Many kinds of farming implements, in the manufacture of which oak and ash are used, render very unsatisfactory service, simply because the seasoned timber was not allowed to shrink before the tenons were driven into the mortises. In like manner, oak chairs, and other oak furniture, will frequently shrink to such an extent that the pommels, rungs, dowel-pins and banisters will all work loose, if the precaution we have described is not observed.

The Art of Drawing.

The art of drawing, by which we imitate everything that is beautiful, and transfer to paper or canvas the creations of our imagination, is not only pleasing as an accomplishment, but is also of practical utility in every branch of study. All cannot expect to attain to equal excellence; there is no one who does not possess some little taste, which, with proper cultivation, will develop itself in some degree of artistic beauty. As in music, so in drawing, to become a master of the art requires long labor and constant application; and still it is within the reach of all to acquire such a knowledge, and such an experience, as to produce pleasing effects and cultivate our tastes for the beautiful in art and nature. If we put our mind and hand to the work we may feel sure of the most gratifying results; and each successive difficulty overcome, and every new idea gained, will add knowledge, experience and encouragement.

The proper materials for drawing are either black lead pencils, or black lead fixed in a port-crayon, charcoal, red, black or white chalk, pastels or crayons, pens or hair pencils, and Indian ink. Black is as proper in the being to practice after the plainer lines, etc., as any other material, and the stroke it makes, being smooth, will please the young beginner better than what is effected by crayons.

PERFORMANCE OF SMALL ENGINES.—A correspondent of the *Scientific American* has been trying to arrive at a practical test of the value of the nominal horse power of small steam engines. He communicates the result as follows: "Some time ago I tried an experiment with a two horse power engine, in order to ascertain how it compared with the power of a horse. The latter, working in a treadmill attached to a 22 inch circular saw, was two hours in sawing a cord of pine wood, making four cuts and five sticks. The engine attached to the same saw performed the same amount of work in just forty-five minutes; the cylinder was 3¼ inches in diameter by 6 inches stroke. Steam pressure was 35 to 40 lbs., and the revolutions of the engine about 300 a minute. The power was transmitted through a 4 inch belt running from a 19 inch balance wheel on the engine, directly to the pulley on the saw. The horse could stand the work only part of the day at a time; but the engine was good for every hour in the day and every day in the week.

PATRONS OF HUSBANDRY.

THE HEADQUARTERS of the California State Grange are at No. 6 Leidesdorff street, in rear of the Grangers' Bank of California, No. 413 California street, San Francisco.

To the Stockholders of the California Farmers' Mutual Fire Insurance Association.

NOTICE.—There will be a meeting of the stockholders of this company on Tuesday, June 1st, 1875, at their office, No. 6 Leidesdorff street, San Francisco, for the purpose of increasing the capital stock to Three Hundred Thousand (\$300,000) Dollars. By order of Board of Directors.

W. H. BAXTER, Secretary.

Secretaries will be supplied with a printed list of subscribers for this paper upon sending a list of their offices within the range of their Grange. Also with blank reports, etc., for clubs.

Grange Directory.—A full list of officers of the State Grange, Deputies, names of Councils, Subordinate Granges, Masters and Secretaries will appear in this department on the first Saturday of each month.

Unappreciated Compliments.

If those manufacturers and others who attach the word "Grange" to their wares do the same as a compliment to the Order, they should be informed at once that the Patrons of Husbandry are remarkably unappreciative in such matters. Or, if they think the members of this Order will buy everything that is labeled "Grange," they have committed an egregious blunder. This point does not enter into the Granger's estimate of the real value of an article. If articles are rendered more saleable by having the word "Grange" appended, the benefits are not derived from the Grangers themselves; on the contrary, such labels would undoubtedly hinder the sale of the articles in this quarter; for, besides the strictly commercial distrust which it would at once arouse, it would occasion a sort of mortification on the part of many to find that people who should know better had placed so low an estimate upon their intelligence and liberality.

If meritorious articles are produced, and are offered at fair prices, they will gain no additional favor by having the word "Grange" attached to them; and if they are not good and cheap the above label will not cover any defects in the estimation of the Order. What is really of the Grange, will, as heretofore, receive the stamp of the Order; and those products will be known in the markets and elsewhere, not as "Grange neckties," "Grange gaiters," etc., but Grange warehouses and similar enterprises, gotten up by the Grangers themselves for the benefit of the Order.

Matters like those referred to above are merely annoying; but there are reasons for apprehending that this same trick will be played for political purposes. We may expect "in the nature of things" to have the term "Grange" figure conspicuously in the political clap-net of the next Presidential campaign. But there is something about this trick of manipulating the producing classes that has, in most cases, made it a failure in the hands of politicians. The failure has evidently arisen from a delusion which party leaders cannot, it would seem, divest themselves of, namely: that by simply attaching a bell to the neck of a supposed leader, here and there, of the working classes, they can lead or drive the whole flock wherever they please. They do not understand the living of these industrial swarms.

This counterfeiting of the Grange trade mark will not amount to much; but if party leaders steal the livery of the Order to serve political purposes—and present indications warrant such suspicions—then every member of the Order should prepare for attacks at this point; and those who have enjoyed the confidence of the Order, and have been placed in responsible positions, should be extremely careful against being led into temptation at that trying moment.

GRANGE PICNICS.—We are pleased to note that our friends in various places are busily engaged in prospective picnicking. The San Jose Grange are to hold a basket picnic at Alum Rock, Thursday, May 13th, and other Granges, far and near, are making similar preparations. The picnic has always found in us a hearty champion. This heartiness, however, is only partially satisfied with the table supplies; it is the spirit that prompts, organizes and enjoys these meetings, that, more than anything else, enlists our sympathies and co-operation. It should add to the enjoyment of the season's picnics to know that, besides those who are present and participating in these fraternal and social gatherings, there are many absent ones who are really with them in heart.

GRANGERS AND MECHANICS.—A correspondent of the *Indiana Farmer* makes the following statement: Patrons of Husbandry are willing to travel hand in hand with mechanics and manufacturers; they need their industry and skill, and cordially meet them half way, but not by the way of the middleman.

Executive Committee Transactions.

At a meeting of the State Grange held in Stockton, October, 1874, the Committee on Master's Message and other reports, reported as follows, to wit:

In reference to organization of County Councils, we recommend that those now organized be continued until such time as the constitutional provisions providing for the formation of District Granges be adopted, when the County Councils should be reorganized in accordance with said constitutional provisions. Adopted.

Also the Judiciary Committee reported as follows:

Resolved, That as soon as the Secretary of the State Grange is notified of the ratification of the amendments to the Constitution of the National Grange by the proper authority, the Executive Committee of the State Grange is hereby authorized to establish regulations for the organization of County or District Granges. Adopted.

In accordance with the above resolution the Executive Committee have adopted the following regulations for the formation of District or County Granges, and recommend that the County Councils now organized be disbanded, and District Granges formed in accordance with the prescribed regulations.

W. H. BAXTER,
Secretary State Grange.

Regulations for the Establishment of District and County Granges in the Fifth Degree.

ARTICLE 1. Any number of Granges, not less than four, established in any county, or in two or more adjoining counties of this State, may organize a District Grange, which shall be composed of Masters and Past Masters with their wives, who are Matrons in the district where the Grange is formed, and such fourth degree members, not exceeding three in number from each Subordinate Grange in said district as may be elected thereto by each Subordinate Grange; provided, at least one out of every three members elected by every Grange shall be a Matron.

ARTICLE 2. The election of fourth degree members as delegates to the District Grange shall be made by ballot at any regular meeting of the Grange; provided, at least one month's notice of such election shall be given in open Grange. These delegates shall hold office for one year, or until their successors are elected and qualified. Each Subordinate Grange shall be entitled to the following representation: One delegate for the Grange at large, one delegate for the first fifty members, and one delegate for the first one hundred members and upwards.

ARTICLE 3. Upon an application for the organization of a District Grange, signed by the Masters of not less than four Subordinate Granges, being presented to the Master of the State Grange, accompanied by \$15 for a dispensation, the Master of the State Grange shall, if he shall deem it for the good of the Order, proceed personally or by deputy to organize such District Grange, and issue a dispensation therefor; provided, however, that in case of a rejection of the application the money for the dispensation shall be returned; if accepted, the Master shall promptly transmit the same to the Treasurer of the State Grange.

ARTICLE 4. Every member of the District Grange who has received the fifth degree shall pay an entrance fee of three dollars, and all members elected to the District Grange who have not received the fifth degree, must apply for and receive the same, and pay therefor the sum of five dollars.

All initiation and entrance fees, except so much as is required to pay for the dispensation, shall be paid into the treasury of the District Grange.

ARTICLE 5. Each District Grange shall have power to provide for itself a constitution and by-laws, which shall not conflict with the National or State Grange, provide for the payment of dues and the transaction of business as will promote the educational and business features of the Order.

ARTICLE 6. The Master of the State Grange shall provide an annual pass-word for the District Granges, and no member thereof shall be entitled to receive said pass-word unless clear of the books.

ARTICLE 7. The officers of the District Grange shall be the same as in the State Grange, and an Executive Committee of three, all to be chosen annually by ballot. Vacancies in office may be filled at any regular meeting.

ARTICLE 8. No person shall be eligible for membership in a District Grange who is not personally engaged in agricultural pursuits and living upon a farm or personally superintending the cultivation of one, and who has no interests in conflict with the purposes of our order. And it shall be the imperative duty of the organizing officer of a District Grange, or of the Grange to which application is made for membership, to inquire into the qualifications—both as to the eligibility and knowledge of the secret work of the order—of each individual applicant, and to reject every person not strictly qualified.

ARTICLE 9. The same rituals, regalia and manual of practice and secret work as used in the Subordinate Granges shall be used in all the District Granges in this State. And all Granges organized in conformity with these regulations shall be amenable in the same manner and to the same authority as the Subordinate Granges.

ARTICLE 10. The officers of District Granges shall be installed by the Master of the State Grange or a deputy specially appointed by the Master for that purpose.

Installations may be public when so desired by any individual Grange.

The following resolutions were adopted at a previous meeting:

Resolved, After the consideration of the charges preferred against Josiah Earl and others, for sending a dispatch to our Senators and Representatives in Congress, we find the action of Bro. Earl and others in getting up and sending the same in the name of the Executive Committee was an error of judgment, was without their knowledge or authority, is reprehensible in the highest degree, and is unqualifiedly condemned.

Whereas, An impression prevailed among Patrons that the Immigrant Aid Bureau was formed under the direction and is under the control of the Executive Committee of the State Grange; therefore be it

Resolved, That the Executive Committee of the State Grange have no connection whatever with the Immigrant Aid Bureau, established by the Committee on Immigration appointed at the last annual meeting of the State Grange, and are therefore not responsible in any way for the acts of said Bureau.

The Era of Good Feeling.

The era of good feeling which was greatly promoted, if not really inaugurated, at the late Charleston meeting of the National Grange, is still progressing, and a better feeling between the North and South is everywhere observed. A second most interesting instance of this genuine fraternization has just occurred in Charleston under the following circumstances: The Washington light infantry military company of that city projected a fair to be held for the benefit of the poor. This fact coming to the knowledge of the volunteer military companies of Boston, they felt moved by a spontaneous desire to show some mark of friendship to the Southern soldiers. They collected a considerable sum of money, to begin with, for the aid of the Charleston poor, and then expressed their personal regard for the promoters of the charity by ordering an elegant and costly banner to be made for the Washington light infantry of Charleston. This unique gift bore the locked shields of Massachusetts and South Carolina, encircled by the flag of the Union. On the night of April 2d, at the Hibernian Hall, a committee of the donors presented this true peace offering to the Charleston soldiers. Major White and Captain Hall of the Boston light infantry made excellent speeches on the occasion, to which Colonel Andrews, in behalf of the Charleston company, responded with great good feeling and taste. The interchange of brotherly words evoked storms of applause from an immense audience, and the enthusiasm rose to the highest pitch when Colonel Andrews placed the splendid banner beneath branches of a palmeto tree which stood upon the stage. When the soldiers of Massachusetts and South Carolina are anxious to embrace and make friends, it is high time for miserable politicians to cease trying to keep the North and South in the hot water of mutual suspicion and hate.

Monopoly in Alaska.

EDITORS PRESS:—At a regular meeting of Compton Grange, held April 10, 1875, the following preamble and resolutions were passed:

WHEREAS, The Government of the United States has acquired the Territory of Alaska as the common property of the whole people and paid for the same out of the common treasury; and,

WHEREAS, It is the right and for the interest of the whole people of the United States that they should have free access to every part of the public domain as a legitimate field for the exercise of their skill and enterprise; and,

WHEREAS, We are informed and believe that said Territory abounds in natural wealth such as especially essential to the building up of a great commerce on the Pacific slope; and,

WHEREAS, We, as citizens of California, are especially interested in the development of the seal, cod and salmon fisheries, and the coal and timber wealth of said Territory; and,

WHEREAS, Our Government utterly disregarding our said rights as citizens of the United States, and especially ignoring our interests as citizens of California, has created a monopoly of the seal fisheries of certain islands adjacent to and forming a part of said Territory, by leasing the same for a term of years to a private corporation, by the terms of which lease all persons are practically excluded from said islands and from the Territory; and,

WHEREAS, The inhabitants of said islands and of the mainland of Alaska, have represented to the government and people of the United States that they are practically reduced to a state of abject slavery by the employees of said private corporation and the United States officials resident among them; therefore

Resolved, That the leasing of the islands of St. George and St. Paul, and the consequent control of Alaska to the Alaska commercial company, is a violation of the right of every American citizen, and especially of the Pacific States.

Resolved, That the degrading bondage to which the inhabitants of said islands and Territory have been reduced is a disgrace to the American people.

Resolved, That a copy be sent to PACIFIC RURAL PRESS and Los Angeles Herald for publication.

C. W. COLTRIN,
J. G. HATHORN,
T. V. KIMBLE,
B. H. TWOMBLY,
J. J. MORTON,

Respectfully, T. V. KIMBLE, Sec'y.
Compton Grange, No. 37, P. of H.

ALAMEDA COUNTY COUNCIL MEETING.—There will be a meeting of the Alameda County Council on Monday, May 10, 1875, at Haywards, in the Hall of Eden Grange, No. 106, at 12 o'clock, m. A full attendance of delegates from the different Granges is requested, as business of importance is expected to come before the Council. Fourth degree members are cordially invited to be in attendance, also Committees on Picnic. Yours, fraternally,
By order of J. RUSSELL, Master.
THOS. HELLAR, Sec'y County Council.

The Kansas and Nebraska Sufferers.

A correspondent from Ferndale has sent us a communication in which he indulges in some strictures on the manner in which aid for the Kansas and Nebraska sufferers has been sought from the Granges in this State. As all action which might be based upon that call for aid has pretty well passed, it seems hardly necessary to publish the communication in full, and we merely make the following reference to the same:

An intimation is first thrown out that no aid was proffered by the National Grange. It is true that nothing was done by that body direct, but aid was rendered by the National Executive Committee before the last meeting of the National Grange, which fact has been widely published. The question is next asked, if aid was needed why did not the Executive Committee of the Kansas and Nebraska State Grange apply to the Executive Committee of the California State Grange? In reply we would state that the General Business Agents of both these Granges did apply for aid to Bro. Gardner, the Business Agent of the California State Grange. That request was duly promulgated, but no material, if any response, was made.

Our correspondent thinks it very strange that an army officer should be appointed the Receiving Agent for the Granges of this State. In reply we would refer again to the failure of the direct application through our Business Agent, and further state that the Government, finding the need urgent, commenced issuing rations of food to the needy, and sent an officer here to solicit barley with which to seed the next year's crop, and such other aid as the benevolent here, whether Grangers or not, might see fit to give. This appeal of Gen. Brislin was made through various parties to all classes of our citizens, who generally came forward—Grangers and others—and responded liberally. Our correspondent will find several other questions answered in the following statement:

Barley was asked from California because it was cheap here and dear there, when it was needed for seed and not for bread. Corn and wheat was called for from other States, where it could be obtained cheaper than from California. Our correspondent is in error in his assumption that barley is not raised in either Kansas or Nebraska, as the barley crop of those two States exceeded 300,000 bushels by the last census, and must have largely increased since. With regard to the exaggerated statements which our correspondent thinks have obtained in respect to the suffering there, we think the general voice of the public press, and the numerous private letters which are constantly coming under the cognizance of all intelligent persons here, furnish abundant basis for the calls which have been made upon this State for aid in that direction.

A Local Controversy.

We have on former occasions announced our unwillingness to participate in any controversies of a strictly local character; not from a lack of regard for any locality, but on account of our regard for the rights of our readers in all other localities. Another occasion, however, offers, which demands that we again "define our position" in this matter. The Secretary of Los Nietos Grange sends us a copy of resolutions passed by that Grange, to the effect that, whereas, contradictory statements having been published concerning the resources of Southern California, tending to mislead the people at large in their estimation of the country, the Los Nietos Grange will discuss the matter fully, and propose to publish these discussions in the RURAL PRESS. We hope our Los Nietos friends will realize the impropriety of the Press devoting as large a space as the discussion would demand, to any local matter. We have been anxious at all times, and are particularly so at present, to obtain descriptive and other reliable statements concerning all localities; but if we should devote our space to the mere discussions of one of a thousand places to which our paper is sent, it would be doing injustice to all the rest; and our Los Nietos friends would, we opine, like the rest of our readers, begin to long for the time "When this cruel war is over."

SPECIAL NOTICE.—The Grangers of Mendocino county will take notice that Bro. T. H. Merry, General Deputy, by authority of worthy Master Hamilton, will visit Mendocino county to convey the new annual word, and to instruct them in the changes of the secret work. It being impossible for him to visit all the Granges in the county, a general meeting is called to meet at Ukiah on Tuesday, May 18th, at 10 A. M., when all the Masters in the county and as many of the members as can do so, are requested to be present.

LARGE GRANGE CONTRACT.—The Executive Committee of the Missouri State Grange has closed a contract for 500 mowers of a well established kind, to be ready in season for the harvest of 1875.

FOR THE NEBRASKA SUFFERERS.—W. H. Baxter requests us to acknowledge for him the receipt of \$25 from Salida Grange for the Kansas and Nebraska sufferers.

The First Grange in Nevada County.

W. H. Baxter, General Deputy of California, organized, April 29, 1875, Indian Spring Grange, Nevada county, with twenty charter members and the following list of officers: H. S. Hatch, M.; L. Horton, O.; B. Sanford, L.; M. P. Hatch, S.; P. L. Stull, A. S.; I. O. Marsh, C.; John Perry, Sec'y; T. J. Robinson, T.; W. Emery, G. K.; Mrs. H. L. Hatch, Ceres; J. Hatch, Pomona; Miss Jennie Stull, Flora; Mrs. P. L. Stull, L. A. S.

A pleasant trip and pleasant organization. Although the county is dry and the prospects anything but flattering for a crop in this section, yet the people in this little valley are cheerful in their secluded, quiet homes of orchards and vineyards, which are in a vigorous, flourishing condition. No better soil or inducements can be found or offered in any section of the State than is here found for vineyard or orchard purposes. I was shown vines, five or six years old, that produced ninety pounds of grapes to the vine, and a home market for a large portion of all their products; and there is yet a large amount of government land that can be located. Some of this land can be irrigated by the numerous ditches, the waters of which are used by miners. The fruit produced in the foothills of the Sierras is well known to be of superior quality to that produced in the lower valleys. Abundant wood and timber lands are still open to location where comfortable homes can be made by those who are now coming to our State. This is the first Grange formed in Nevada county; but it is to be hoped that it may be followed by many others, as there are numerous other locations in this county where flourishing Granges might be established.

W. H. B.

In Memoriam—Mrs. Esther Alderman.

WHEREAS, Since our last meeting the hand of death has been laid heavily upon us, and the Divine Master has seen fit to call to higher work above our most worthy and esteemed sister, ESTHER ALDERMAN, it is therefore resolved by this Grange,

First—That in the sudden death of Sister Alderman we are again reminded of the uncertainty of life, and the importance of remembering that death may overtake us at any moment.

Second—That we deeply mourn the departure of our sister from our midst, feeling that in this we have lost a neighbor, who was indeed a neighbor in the highest and most Christian sense; a sister, faithful and devoted, exemplary in character, conscientious in the discharge of all duties.

Third—That the sincere and heartfelt sympathies of this Grange be extended to the bereaved husband and son, who in her have lost the most that makes life dear.

Fourth—That a copy of these resolutions be handed to the family of the deceased, and one each to the *Ventura Signal* and *RURAL PRESS* for publication.

J. B. ALVORD,
E. A. DUVALL, } Com.
MRS. A. BAKER,

Saticoy Grange, Ventura county, April 24, 1875.

EDITORS PRESS:—There are circumstances connected with this death which make it particularly impressive. Our friend sat repairing a sun bonnet, while her husband sat by reading the bible, when suddenly her work dropped, her head fell back, and she died without a sign. No noiseless was the death angel's approach that, not a flutter of his wings aroused the husband's attention.

AMANDA BAKER, Sec'y.

Saticoy, April 28, 1875.

STRONG GRANGES WANTED.—Master Smedley, of the Iowa State Grange, remarked at the late meeting of that body that one serious difficulty met with by Patrons in systematizing the work of the Subordinate Granges is the looseness and want of care in their early organization, and in the mistaken judgment frequently displayed by Deputies in establishing Granges in too close proximity. Experience, says Brother Smedley, has demonstrated that it is not in having a great number of organizations in each county that we are to look for the most effectiveness, but that strong, healthy Granges, even though fewer in number, are more likely to strengthen the cause. I have aimed to remedy this defect, by counseling as many of the small and weak Granges as possible to consolidate. In this effort I have been successful—109 Granges having consolidated during the year—and applications are now almost daily received for instructions and permission to do so. We may reasonably look to overcome much of this difficulty in this way.

GRANGERS AND FARMERS' CLUBS.—Our brethren of Swedish birth, in Illinois and neighboring States—Grangers and Farmers' Club men—have set a good example in the matter of fraternizing. They are about to unite in the establishment of a weekly paper in Chicago, to be devoted to the cause of the laboring interests. They expect friends in both organizations to lend them a helping hand. There are about 900,000 Swedes in the United States, and of all the periodicals and newspapers they have there is not one devoted to the discussion of the questions that most deeply affect them. The Swedes are an industrious, frugal, intelligent and honest people, and their sympathies are with the industrial classes to which they belong.

THE GRANGE.—The Grange is the salvation of the farmer, and need only to be maintained by energetic, intelligent, and above all the desirable results within the scope of any human institution. Stand by the Grange then! Sustain it by which of itself insures success. With it you are sovereigns, with your scepter in your hands; without it you are on the high road to vassalage; thus truthfully speaks the *Northern Granger*.

From the Granges.

Florin Grange.

EDITORS PRESS:—It has been a long time since I have written to you, but "better late than never." As the crops are the all absorbing subject now, I will speak of them first. From the first rains last fall until about four weeks ago we have never had a more favorable season; but about four weeks ago we began to need rain. Then came two frosts, followed by two days of hard, north winds. There was a great deal of fallow grain sown in this vicinity, much of which was in blossom at the time of the frost and north winds, and was blasted—some contend by the frost—by the severe and hot north winds blowing the blossoms off. I am inclined to think the frost had little, if anything, to do with the blasting, because there are many heads that the tops and bottoms are blasted and the middle good, and there are others that are blasted on one side, and the other side good. Some of it will be, and some of it has been, cut for hay. Our winter sowed grain will be short and thin generally; there are some pieces much injured by the drouth, and some is looking well yet, but would be much better if we have rain soon. The hay crop will be light generally.

Our Grange is in a flourishing condition; we number seventy members, including eleven members who have just taken the third degree and will take the fourth on the 22d inst., and, as a matter of course, the sisters will as usual do their best to satisfy the inner man; including the sisters and visitors. Judging by the past everybody will go away satisfied and glad that the harvest feast was not omitted by those that originated the formula of initiation. At our last meeting Brother W. A. Smith, one of our charter members and Lecturer last year, took a withdrawal card from our Grange. He has sold his farm here and has removed to Los Angeles. He took with him the kindest wishes of the Grange.

We have not got a hall built yet, but I think we shall get one built this fall. The last two seasons have been particularly unfavorable for farming operations in this vicinity, on account of being too wet to put grain in; and this year we are not going to average more than a half crop, so that we do not feel quite as rich as we would had we been more favored; but from all accounts we are no worse off than many others, for the news from all parts of the State is rather discouraging to farmers; and we sing a little song found on page 51, Grange Songster; the second line says "better days are coming," and we say, let them come, we can stand it and thank God that it is no worse.

I receive the *RURAL* regularly, and it is a welcome visitor; there were several spoke to me about subscribing for it as soon as their time was up, but they have not yet; whether their time is not up, or money scarce, I do not know.

I forgot to say that the frost killed much of the fruit in this vicinity; it was particularly hard on the Mission grape; but there will be a good many Muscats. Strawberries were injured considerably, but there are some left. I don't think blackberries were injured much, if any; but all kinds of stoned fruit will be very scarce this year in this vicinity. Thanking God that it is no worse, and hoping for better in future, I remain as ever, J. J. BATES,

Secretary of Florin Grange.

May 1, 1875.

THE GRANGE A FAMILY.—Parents and children cannot be too much together. The duties and obligations of the one will not unfrequently keep them away from the other, so that it is but a sensible thing for parents to seek every fair and legitimate occasion for placing themselves in company with their children when they come to be thrown in contact with the world. The Grange is a family, or rather a little world within itself; so see that your boys and girls are with you there—*Am. Patron*.

TEMPERANCE IN THE GRANGE.—In a recent speech at Dalton, Ohio, Brother L. H. Ellis said that he had attended public Grange gatherings in twenty different counties of that State without seeing a drunken man, and hearing but one profane word. We don't believe there is any organization in the country that is doing more real, practical work for temperance than the Patrons of Husbandry. We don't except even the temperance organizations themselves.

WE notice the members of the Legislature who are farmers, or in sympathy with them, meet, consult and try to carry out the wishes of that important class, at least so far as those wishes conform to the rules of justice. We notice the same of the Indiana Legislature. A very good omen.

A HISTORY OF THE ORDER.—It is announced that Secretary Kelley, of the National Grange, is preparing a full history of the Order from its beginning.

SLIGHTLY IMPROVED.—An examination of our "Agricultural Notes" will create a more hopeful feeling in regard to both the grain and fruit crops. From our Eastern exchanges we learn that the fruit prospect there remains unchanged, while the winter wheat in the Northwestern States shows more and more the damaging effects of the terrible season to which it has been exposed.

Commercial Points for Hop Growers.

We have received from Philip Wolf & Co., the following circular, which contains many points worthy the careful consideration of the hop growers of California:

We have made the shipping of California hops to Eastern markets our specialty for some time, and in our interest, as well as in that of the producers, we have gathered such facts in relation to the profits of this source of our industry, as were accessible to us, and in this, our semi-annual circular, we give you a condensed report of the same.

It will be admitted that the hop culture on the Pacific coast is rapidly increasing, and the home consumption, compared with our production, being but limited, the exportation of the product, therefore, to distant markets, is a matter of vast importance to all those engaged in hop-raising; while on the one hand the California hop growers were fortunate to place their crop of 1874, early during the season, at remunerative figures, the operations of the exporters, on the other hand, do not show up very satisfactory results for the season, 1874-75. This latter fact is to be accounted for by general business stagnation in the Eastern States and in consequence of the decreased production of malt liquors, and furthermore, owing in no small degree to the inferior quality of some of our California hops sent forward.

It is to this latter fact that we desire to call the especial attention of every hop grower on the coast; we are but beginners, and while it can not be gainsaid that the soil and climate of some portions of our State and coast are admirably adapted to the raising of hops, and equal to the most favored sections of Europe, it must be admitted that too little attention has been paid by our growers to the curing and handling of the plant. It is not sufficient that our yards show excellent vines, that they are of healthy growth, producing rich tops and fragrant lupulins, but after careful picking, which should be attended to in proper divisions when just ripe, the utmost attention should be paid to curing, cooling and packing.

Farmers with little or no experience will often venture into the business of raising hops, knowing but little about their culture and much less of the extreme attention and care that they require. To all such new beginners our advice is to try the experiment in a very limited way, and only after sufficient experience is gathered as to the adaptability of soil and the perfect manner of drying and curing is it advisable to set out larger yards.

Another great difficulty with even our older hop growers is their very limited capacity of drying and cooling houses. With the exception of the Messrs. Bird, of Santa Clara county, and of perhaps one or two other farmers, there is hardly a yard in our State with sufficient capacity of buildings to give the hops proper time to go through the necessary sweating and cooling process.

In order to establish an enviable reputation for our hops in any and every market, it is advisable that no farmer send a single bale of hops out of the State unless it be in perfect condition. For the more proper cultivation of hops and its attending business, we would suggest that the California farmers making hop raising a specialty, meet occasionally for the purpose of interchanging ideas, make and accept suggestions, etc., which no doubt would further the interest of all concerned; a uniform weight of bales and baling cloth should also have proper attention.

The entire Pacific coast produced during last season, close on 6,000 bales of 200 lbs. each of hops, of which over one-half was shipped direct to New York, 500 to other Eastern cities and about 200 bales found their way direct to England, leaving in the neighborhood of 1,200 bales for the consumption in our own State. Fully one-third of the hops produced here, we regret to say, were found to be in very inferior condition, even long before they reached the consumers.

In conclusion we beg to mention that we shall continue in the business of handling California hops, and shall be happy to hear from you about prospects of your growing crop, and also about the general outlook of the district you reside in. We shall always be ready to purchase at fair market rates, but outside of that our connections in New York city, and also in London, England, enable us to offer you our reliable services in case you desire to send your next hop crop on to those markets, direct, for your own account.

All information at our disposal will be gladly given upon applying at our San Francisco office, 222 Battery street.

Yours, truly, PHILIP WOLF & Co.,

San Francisco, April, 1875.
Office of Philip Wolf & Co., 222 Battery street, San Francisco; 44 Vesey street, New York.

CROPS IN THE GREAT NORTHWEST.—The *Chicago Tribune* has special reports from Illinois, Missouri, Kansas and Nebraska, which represent the crops of those States as being generally in an unpromising condition. The extremely cold weather of the past winter wrought wide-spread damage. Many wheat fields will be ploughed over and planted in corn. Fruits have also suffered greatly from the same cause, the blight in a great many sections being total. The *Inter-Ocean* has reports from Indiana, Michigan, Ohio, Minnesota, and Iowa, a little more favorable in certain sections of these States for grain, but lamenting a wide-spread destruction of the fruits.—*Call*.

Agricultural Items.

LAST MONTH'S WEATHER.—Following is the meteorological report of the Signal Service Department for the month of April: Mean barometer, 30.062; mean thermometer, 54.5; mean humidity, 70.4; rainfall, in inches, 1; highest barometer, 30.443; lowest barometer, 29.795; monthly range of barometer, .648; highest temperature, 81; lowest temperature, 40; monthly range of temperature, 41; greatest daily range of temperature, 27; mean of maximum temperatures, 62.2; mean minimum of temperatures, 48.7; mean daily range of temperatures, 13.4; total rainfall in inches, 1; prevailing wind, west; total number of miles travelled, 7,927; maximum velocity of wind, 28; number of cloudy days, other than those on which rain fell, 5; number of days on which rain fell, 2.

THE *Visalia Delta* says that it would be difficult to obtain a dozen good work hands in that county without paying from forty to fifty dollars per month.

A MEETING of the committee of the to-be-organized agricultural society for Kern, Fresno and Tulare will be held at Visalia on the 15th inst.

THE "Gerke ranch," situated in Butte and Tehama counties, will be cut up in small farms and sold.

THE cloudy sky and heavy fogs of last week were very beneficial to the crops in the coast counties.

MR. CULVER, of Coos river, Oregon, is going to put up a fruit drying establishment on a large scale.

THE Los Angeles orange crop is nearly gathered in.

A BAD prospect for the fruit crop in Butte county.

THE Merced people talk of building a flouring mill.

THE grasshoppers have appeared about Tomales.

Industrial Items.

A NEW steamer for the line between this city and Humboldt bay is in process of construction. She is to be twenty-six feet beam, ten feet lower hold, six feet nine inches between decks, and 160 feet over all, and with a carrying capacity of 330 tons.

A FRANCHISE has been granted to Fawcett, Fernauld and Winchester, of Santa Barbara, to construct and operate a horse railroad from Starnes' wharf to some point near the Mission, the work to be commenced within three months.

THE Los Angeles *Express* learns that 28,000 sheep had gone up through Cajon pass during the past ten days. Of these, 8,000 were destined for Bear valley and 20,000 for Arizona.

THE Santa Cruz *Sentinel* states that the Felton railroad is progressing steadily. They are now engaged in the heavy work at the tunnel above the powder works.

THE contract for the construction of a new revenue cutter for the Columbia river has been awarded by the Secretary of the Treasury to the new Oregon iron works, of Albany, Oregon.

THE *Oregonian* says: From two to six or seven hundred people are brought here every week by the steamer, who come to make their homes with us if they can.

MESSRS. Jenkins, Sellers, Utter and another gentleman have located a section of coal land, about twelve miles above tide water on the Coquille, Oregon.

THE road between Summit and Tahoe is now open, and Caldwell's teams are running between the two points.

General News Items.

AMONG the late ventures in California journalism is the Santa Cruz *Local Item*, published by H. Coffin, late of the *Gilroy Advocate*. Mr. Coffin seems determined to give his patrons a live paper, and from the initial number, which has come under our notice, he bids fair to succeed.

A MAN named John Reynolds, who, until quite recently, was employed as waiter at the Cosmopolitan Hotel, committed suicide last Saturday at the West End House, by asphyxiating himself with gas.

DISPATCHES from various points in the Pennsylvania coal regions report that the strike is still in force, with disturbances at several places.

ANOTHER letter in the Beecher business. This time it is one from Mrs. Tilton to Judge Neilson. What its contents are is just now racking the brains of the reporters to ascertain.

IT has been ordered that a postoffice be established at Allen's Camp, Kern county, California, Henry Clay Coley, Postmaster.

A TRAIN of twenty-three cars loaded with oysters reached San Francisco from the East Tuesday. They will be transplanted in the bay.

THE criminal aspect of the Civil Rights bill has been declared unconstitutional by a North Carolina judge.

THE new Palace Hotel at Napa was formally opened last Friday evening.

A WHALE was seen in San Diego bay the other day.

THE Pope is ill again.



Farmers' Girls.

Up in the early morning,
Just at the peep of day,
Straining the milk in the dairy,
Turning the cows away—
Sweeping the floor in the kitchen,
Making the bed up stairs,
Washing the breakfast dishes,
Dusting the parlor chairs.

Starching their dresses for Sunday,
Churning their snowy cream,
Rinsing their pails and strainer
Down in the running stream—
Feeding the geese and poultry,
Making puddings and pies,
Joggling the little one's cradle,
Driving away the flies.

Grace in every motion,
Music in every tone,
Beauty of form and feature,
Thousands might covet to own—
Cheeks that rival the roses,
Teeth the whitest of pearls;
One of these country maids is worth
A score of your city girls.

Farm House Chat.

[By MARY MOUNTAIN.]

Writing a serial must be perilous business, and I can now realize the agony of the author who discovers too late that his first chapter was best in the mail bag or in somebody's pocket, and his carefully built story begins with the second chapter. Such trouble is about as bad as a chronic toothache; but I hope not so chronic, for I have just caught it. Yes, I was spinning a yarn that threatened to be too long, so I broke it off and sent forward a part, with promise that it should "be continued next week." The aforesaid part went forward and lost itself somewhere in the unknown region that holds the great mystery of the mail bags.

It won't do any good to ask Uncle Sam about it; so, with melancholy resignation I proceed to write it again, and comfort myself with the thought that just such awkward little tricks are happening in all the best regulated families. Of course it is awkward to begin again at the first while the second part stares at me from the printed page of the last RURAL—April 24. And the second part has its own little misfortune of a comical blunder that will astonish the quiet old man who is not aware of the tricks of type. He says in his letter that Martha (alias Flora) "has brothers of her own," but the types say "she has brothers of her own." Perhaps she has, but thus far they have not appeared and I hope and pray they will just keep quiet and not imagine that they have been called upon for a statement.

My own wishes and efforts are to reconcile men and women to actual facts, or to life as it is and as we may help each other to make it. In proof of this, I will produce again

The Lost Chat.

Hardly ever can I read through a RURAL without a brisk stirring of thoughts and a wish to respond to this or that acceptable or original idea. But response takes time; and when that is obtained the delay has proved fatal; the glow of inspiration has faded and the air of enthusiasm will never reach the inkstand.

But Mrs. E. E. A.'s "Answer to Flora," in the last RURAL—March 27—has furnished me with a "stim" so persistent that finally—and begging Mrs. A. to pardon me—I yield to temptation and put my finger in the Flora pie. If there is in this case a real husband and a real "Flora," trying honestly all these years to refine his tastes and change his grumpiness to genial mellow-heartedness, and if she finds still no improvement whatever, no interest in each other's affairs, no growth of sympathy or adaptability, why, it is no wonder she is at her wit's end and pleading for a little "foreign intervention." I say no interest in each other's affairs, because it is generally true that if the husband is indifferent to his wife's tastes she is equally cold toward all that most interests him.

It must be noticed in Flora's confession that she is the first to get angry and blaze away; that he then follows suit and they make things lively. Yet, in asking for a newspaper cure-all for his temper she never intimates that her's might be the better for a gentle anodyne; but as Mrs. A. is likely to supply the needed corrective I will say no more upon that point. It only occurs to me that the effort to harmonize this discordant pair must be made with the same blind faith that goes to the taking of patent medicine. It may hit the case or it may not.

The mutual friend business is not just now

at a premium. Yet I venture to say that hardly any respectable woman can fail of having at least one wise and prudent friend, who, knowing the temperaments and the good and bad qualities of both husband and wife, could give advice that would be far more healthful than any possible newspaper discussion from an entire stranger.

An excellent Vermont monthly called *The Household* comes to me and in it I find an occasional "Flora," who confesses that she has a good, steady husband, and a pleasant enough home; but, oh, the duties of it are so irksome, the children so confining, the husband always too tired to take her to parties and concerts; and will not the *Household* sisters give advice and a few words of sympathy, because everything was so different when she was a girl?

Here we come at the very secret of the matter in countless cases of married discontent, and 'tis over and over the burden of the old song—

"O, would I were a girl again!"

And is the husband also filled with vain regret, and whistling drearily of

"A bachelor's life so gay and free,

"Ah, surely that was the life for me!"

There is a comical scene in Edwin Drood, where Rosa is severely critical upon the imaginary big red nose of an imaginary rival, and declares that "of course she would powder it." Edwin scornfully denies that she would do such a thing, and so the foolish little quarrel goes on. Just as you imagine that they are coming around to make it all up, and the big red nose is surely forgotten; Rosa has a sudden relapse of obstinacy, and bursts out with, "But she would, she would, she would, she would powder it!"

Now I suppose it is true of nearly every regretful and discontented woman, that she would, she would, she would get married; and if death or divorce sets her free from that line of cares and duties, how very often it is true again that she would, she would, she would get married! All right enough too; and so it will be forever, and ever, amen. But how is "Flora," or anybody else to be helped by such an aggravating statement of facts?

Well, women need to look at facts, and to take in, if possible, both sides and all the sides of all the facts.

I can growl "as good as anybody" about the surly injustice, the thoughtless harshness, the short-sighted stinginess of the tyrant man. Then I feel better, and immediately go over to the enemy, make a good fight in his behalf, count up his good qualities and say what a fine fellow he would be if only his mother had trained him right.

It is true there is an occasional man for whom we cannot make a good fight; and when the dear and gentle woman who earnestly tries to reform a mean one of that sort, succeeds only in finding him mean all the way through and all his life long—ah, let us pray that his life may be short, for the gentle woman needs a quick deliverance.

But she is the one whose life will be sadly shortened if she finds nothing but harshness and meanness offset against all her patient kindness and her agony of desire to be proud of this man to whom she has given herself.

Given herself? Ah, there's the rub! Very likely father or mother, or shrewd elder brother warned her of these same obnoxious qualities that now crucify her daily; but in the rosy days of "love's young dream," could she see the bad traits or believe what she heard of them.

We must admit that she could not see them, and any belief in them was over-topped by the stronger faith in her own influence and the power of affection to change the bad to good. So she chose, or consented, ignorantly; and like thousands of others who thus choose, must ever remember that she would, she would leave that pleasant freedom of girlhood which now, as never before, seems to her

A Paradise Lost.

Finding now the path of life so steep and rough, and all her burdens grievous to be borne, she looks backward with more and more regret; and the dear delights of girlhood become in imagination brighter than they really were, from the contrast with present unwellcome realities. Will it help her any now to remember that the paradise would surely have been lost even if she had stayed in it?

There are two ways of losing a thing; one by dropping it on the road, giving up by and by the hope of ever finding it, and proceeding to comfort yourself with what may still be left to you; another way is to keep your old awe or whatever it may be, wear it all to shreds and throw it in the rag bag.

A woman may keep her girlhood until she sees it faded, worn out, lost amid the glow of other youth and beauty thronging onward; or she may lose it suddenly amid the folds of a bridal veil as she steps forward upon a plane of life that should be higher, fuller and less selfish than the other, if not so free.

A great many have the good sense to see that the lost Paradise can never be regained; while others look back with unceasing regret, and in whichever way it was lost they are sure to imagine that the other way would have been the better way.

Some may be excused for this, and especially the woman whose hard life holds no bright promise for to-day or to-morrow; and only the far away yesterdays are beautiful.

But now let us suppose that the husband is not essentially hateful and mean.

Having much faith in womanhood, I believe that a genuine woman, striving earnestly to encourage and cultivate the good in humanity, may be almost as sure of success as when she

sets about the culture of sweet flowers in a patch hitherto devoted to weeds.

But the cultivation of weedy humanity in the shape of a grown-up man is a very tough job indeed, and most of us get tired and give up too soon.

Here for instance is the husband of "Flora"—"quiet, hard-working, no bad habits, kind and good!"

On the other hand he is rather too old, too undemonstrative, does not buy the canary bird, and when she gets mad he answers back! What shall they do to be saved?

Probably they are working out their own salvation, but not as pleasantly as they might. Both working bravely for the common good of their little world, but not in a helpful, sociable way.

And there are the four little ones ready to be loved, comforted, enjoyed and trained by the mother who seeks wisdom to do it aright. Truly such a mother holds her happiness in her own hands and need not borrow anybody's glasses to see what it is like.

Too many of us look far for what is certainly near. We forget to be in daily life good philosophers, and good Christians according to the golden rule.

(Just here came in a letter from the husband of "Flora" and it is already published in RURAL of April 24.)

The Coming Man.

[By ELISA E. ANTHONY.]

The coming man will not ridicule woman's rights, but will allow his wife all the rights she desires, and perhaps more when occasion offers. He will not smoke, out of deference to her feelings; will draw off his boots before entering the house, so as not to waken the baby; and during the night, at a nudge from his spouse, will rise and walk the floor with the aforesaid cherub, and will sing "lullaby" for hours without a murmur. He will not call his wife to account for a certain ten cents that he gave her three months before; and she will not be roused from her dream by hearing him about in her ear: "Say, Maria, did your shoe string cost five or ten cents? I've been wondering what on earth you did with that money."

The coming man will not tell his confiding partner that he is going to the lodge, and instead go to his club, or play "poker" with his friends. He will not leave her at home darning the family hose, and sewing on buttons on his—ahem!—shirt, while he cultivates the acquaintance of Misa Golightly.

The coming man will not stand on the street corners ogling ladies, and making insulting remarks, or puffing cigar smoke into their faces. He will not sneer and scoff at his own sister, and be polite and deferential to some other individual's sister. He will not part his hair in the middle, perfume his moustache, wear gaudy red or green neckties and a profusion of cheap jewelry, but will be neatly and becomingly attired.

The coming man will not consider it necessary to allude to his respected sire as "the governor," nor to his venerable mother as "the old lady," but will reverence his elders, speaking respectfully to and of them. He will not think his education completed when he reaches his nineteenth year, but will discover that he meets many persons that know more than he does—singular and mortifying as it may appear to him—and will learn something new every day despite the fact "that there is nothing new under the sun." He will not consider labor a disgrace, and fearing to soil his hands, prefer measuring tape behind a counter to learning one of the many useful trades and professions which render a man independent by honest labor, whether said labor is of the head or hands; and finally, in marrying, will fix his choice—not upon a girl whose thoughts are solely of fine clothes, excitement and luxury—but upon a modest, blooming girl, who is domestic in her tastes, and can render both husband and home comfortable and happy; who is accomplished in the parlor as well as in the kitchen, "the heart of her husband doth delight in her."

When the coming man reaches the above standard, the world will be a Utopia.

San Lorenzo Mill, April 19th, 1875.

COMPANIONSHIP.—All well formed human beings are adapted to society. When we find a recluse, a hermit, or one who seeks and prefers seclusion, it is safe to infer that there must be something lacking, or that the person is warped and in an abnormal condition. God did not make him so. He is the creature of misfortune, or of perversion, and more to be pitied than blamed.

No one lives alone from choice, with the exception of these morbid specimens. Even horses have friendships, and pine for the absent one. So do domesticated cats and dogs. Carry Kitty away to a strange place, and she loses her appetite, becomes ill from homesickness, and really suffers from a disturbance or breaking up of her social or friendly relations. The horse worries, frets and refuses to eat till his mate returns. But these are as nothing compared to the stronger, deeper, and almost inseparable ties which unite human hearts in the bonds of friendship.

A good man once said: "The greatest gift God gave the world, after he gave his beloved Son, was the marriage covenant."

Polite Children.

"Thank you, Charlie," said Mrs. Brown, as her little son handed her a paper he was requested to bring.

"Thank you, Bridget," said the little fellow a few hours after, as he received a glass of water from his nurse.

"Well, Mrs. Brown, you have the best mannered children I ever saw," said a neighbor, "I should be thankful if mine were as polite to me as yours are to the servants. You never spend half as much time on your children's clothes as I do, and yet every one notices them, they are so well-behaved."

"We always try to treat our children politely," was the quiet reply.

This was the whole secret. When I hear parents grumbling about the ill manners of their children I always wish to ask, "Have you always treated them with politeness?"

Many parents who are polite and polished in their manners toward the world at large, are perfect bores inside the home circle. If a stranger offers the slightest service, he is gratefully thanked; but who ever remembers to thus reward the little tireless feet that are traveling all day long up stairs and down, on countless errands for somebody? It would be policy for parents to treat their children politely for the sake of obtaining more cheerful obedience, if for no other reason. The costless use of an "if you please," and "I thank you," now and then, will go far to lighten an otherwise burdensome task. Say to your son, "John, shut that door," and with a scowl, he will move slowly toward it, and shut it with a bang. The next time say, "John, will you shut the door, please?" and he will hasten with a pleasant smile to do your bidding.

'Hit Him Again, He has no Friends.'

A thief was arrested in Detroit, a few days ago, and the sheriff, on searching him, found pasted inside of his hat the following maxims, cut from some newspaper: "Remember that truth is a jewel; do not covet; respect old age; be content with what you have; live so that men will take your character for an example." In consideration of the excellent principles governing the man's life, the court allowed him to retain his printed slip during his year's sojourn in the penitentiary.—*Ex.*

Upon the above the *Phrenological Journal* comments as follows: Now, is it not supposable that the man really cherished these excellent sentiments? Was it not a slip, rather than a habit, that he "took" this once, that which was not his own? But all his good intentions go for nothing, now that he has violated the civil law, and he is "chucked" into prison among hardened criminals, whence he will probably graduate an expert at the end of a year, and thence become a "terror" in society. We think those "maxims" pasted in the man's hat were the promise, at least, of good intentions, like the temperance "pledge" to a drinking man; and, like many another, he forgot his good maxims for the moment, and was tempted. To the one who jeeringly casts a pitiless slur on the good motives even of a thief, we may quote these words—

"That mercy I to others show,
"That mercy show to me."

FEMALE SOCIETY.—It is better for you to pass an evening once or twice a week in a lady's drawing-room, even though the conversation is slow, and you know the girl's song by heart, than in a club, a tavern, or a pit of a theater. All amusements of youth to which virtuous women are not admitted, rely on it, are deleterious in their nature. All men who avoid female society have dull perceptions and are stupid, or have gross tastes and revolt against what is pure. Your club awaggers, who are sucking the butts of billiard ones all night, call female society insipid. Poetry is uninspiring to a jockey; beauty has no charms for a blind man; music does not please a poor beast who does not know one tune from another; but as a pure epicure is hardly tired of water-sans and brown bread and butter, I protest I can sit for a whole night talking with a well-regulated, kindly woman, about her girl Fanny or her boy Frank, and like the evening's entertainment. One of the great benefits that a man may derive from a woman's society is that he is bound to be respectful to her. The habit is of great good to your moral man, depend upon it. Our education makes us the most eminently selfish men in the world.—*Thackeray.*

The sun is full of heat and light, and it asks no questions as to how it shall do good, but is perpetually pouring out its golden flood. The spring that sparkles at the foot of the hill is full; and asking leave of no one, is forever welling forth its sweet waters. So the Christian, if only full of the love of God and man, and abiding around him benign influences as a natural result, cannot help doing good.

A MAN must invest himself near at hand and in common things, and be content with a steady and moderate return, if he would know the blessedness of a cheerful heart, and the sweetness of a walk over the round earth. This is a lesson the American has yet to learn—the capability of amusement on a low key.

The only way to make the mass of mankind see the beauty of justice is by showing them in pretty plain terms the consequence of injustice.

The Great Religious Excitement in England.

Scarcely for a hundred years, certainly not during the present century, has England experienced such a popular religious excitement as now prevails there under the labors of the two American revivalists, Moody and Sankey. That country has not been wanting in great preachers, some of whom have developed powers as pulpit orators and popular teachers; but none of them since the days of Wesley and Whitefield have produced effects at all comparable to those produced by the two Americans above named. Moody is a native of Massachusetts, but for some time a resident of Chicago, where he was pretty well known as a working member of the Young Men's Christian Association. He is not an ordained preacher, and was never supposed to have any special gifts of oratory, being noted only for his earnest devotion to the work of evangelization and his boldness in proclaiming Gospel truth. Mr. Sankey is from Pennsylvania, and does not preach at all, but sings. He fills the intervals of Mr. Moody's talking by singing revival hymns with great earnestness and pathos, accompanying himself on a cabinet organ.

Almost from the very beginning, their labors abroad have been attended by wonderful results. The great cities of Scotland, like Edinburgh and Glasgow, then of Ireland, and now of England, have witnessed a religious excitement far surpassing anything in the memory of those now living. Their fame soon spread throughout the kingdom, and wherever they went great crowds have flocked to hear them. Their congregations, generally numbering many thousands, have embraced all classes of society, and vast numbers of persons have made their first public professions of religion under their ministrations. They recently arrived in London, where they are now addressing immense audiences with the usual results. The stolid English people are stirred as they rarely have been stirred before, and the movement has already become one of the most remarkable of modern times.—*Indianapolis Journal*.

A Truthful Sketch.

Let a man fail in business, what an effect it has on his former creditors! Men who have taken him by the arm, laughed and chatted with him by the hour, shrug their shoulders and pass on with a cold "How do you do?"

Every trifle of a bill is hunted up and presented, that would not have seen the light for months to come, but for the misfortunes of the debtor. If it is paid, well and good; if not, the scowl of the sheriff, perhaps, meets him at the corner. A man that has never failed knows but little of human nature.

In prosperity he sails along gently wafted by favoring smiles and kind words from everybody. He prides himself on his name and spotless character, and makes his boast that he has not an enemy in the world. Alas! the change. He looks at the world in a different light when reverse comes upon him. He reads suspicion on every brow. He hardly knows how to move or how to do this thing or the other; there are spies about him, a writ is ready for his back. To know what kind of stuff the world is made of, a person must be unfortunate and stop paying, once in his lifetime. If he has kind friends, then they are made manifest. A failure is a moral sieve—it brings out the wheat and shows the chaff. A man thus learns that words and pretended good will are not and do not constitute real friendship.

THE COMING GIRL.—She will be of some use in the world, will cook her own food, will earn a living, and will not die an old maid. The coming girl will not wear the Grecian bend, dance the German, ignore all possibilities of knowing how to work, will not endeavor to break the hearts of unsophisticated young men, will spell correctly, understand English before she affects French, will preside with equal grace at the piano and the washboard, will spin more yarn for the house than for the street, will not despise her plainly clad mother, her poor relations, or the hand of an honest worker, will wear a bonnet, speak good, plain English, will darn her old stockings, will know how to make doughnuts.

The coming girl will walk five miles a day, if need be, to keep her cheeks in glow; will mind her health, her physical development, and her mother; will adopt a costume both sensible and conducive to health; will not confound hypocrisy with politeness; will not place lying to please instead of frankness; will have the courage to cut an unwelcome acquaintance; will not think that refinement is French duplicity; that assumed politeness where hate dwells in the heart is better than outspoken condemnation; will not confound grace of motion with ally affectation; will not regard the end of her very being to have a beau.—*Ex.*

How to ECONOMIZE.—Ladies who wish to modernize plain basques, or change cuirasses into the new fashion, can now do so by adding to the lower part of the two middle forms a straight piece of silk, laid in from twenty to twenty-five fine plaits. Breast pockets are again in vogue, and there are also reticule pockets made to bulge out as if the oval pouch was nearly filled.

THOMAS HOOD, the poet and punster, is now accused of having been a cremationist, because he said, shortly before his death, that "he was dying out of charity to the undertaker, who wished to urn a lively Hood."



How He Started.



How He Came Home.

YOUNG FOLKS' COLUMN.

For the Little Folks.

Dear children, I want to say a few words to you on a subject of which I have just been thinking much, viz.: The intercourse of children with each other, and the rules which should govern their conduct at all times. All of you, or nearly all, are sometimes, if not daily, brought in contact with others besides your brothers and sisters. You meet in social life—you meet in your places of instruction. All are not lovely in their character or conduct. You may teach them, by your manners and habits, to do better. Some are placed in very different circumstances from yourselves. Now, I will give you a few simple rules, which, if you will try to remember and be governed by, you will be happier for it, and do good:

1. Be gentle and kind to all.
2. Be slow to believe an ill report of any one.
3. Never repeat an unkind remark made in regard to any one. Never be a tale bearer.
4. If any of your mates have a bodily defect, such as the loss of an eye, a lame foot, a disfigured face or limb, from accident, never injure their feelings by alluding to it in the presence of another person.
5. If any of your mates are so unfortunate as to have an intemperate parent, never allude to it, or in any way let them know that you are aware of it.
6. Never repeat, at your own home, the history of any unpleasant occurrence in your school during the day, which may have involved any of your mates in difficulties, or resulted in their punishment.
7. Relieve the wants of all needy children, as far as in your power.
8. 'Do unto others as you would that others should do to you.'

FLOWERS.—Who does not love the flowers? Who cannot find some charm in each one of them? They spring up everywhere, to gladden our hearts by their beauty and fragrance; and they should make us thankful for God's love and kindness in thus beautifying the earth for us.

Let us first look to the fields, and see what they can produce. At the first appearance of bright, beautiful Spring, the brown fields put on their green covering, and the warm bright sun brings out the wild flowers and the ferns. Soon the leaves appear on the branches of the trees, and the little pink and white blossoms peep forth. By and by the grain springs up to gladden the heart of the husbandman, who rejoices in the prospect of an abundant harvest. The field flowers, in their simple and bashful beauty, peering out from the emerald ground, have a charm for all lovers of nature. The little sky-blues, with their delicate tints, look as if they had been colored by the reflection of the sky for which they are named. The dear little violets, so fragrant and yet so modest, bend their graceful heads among the thick grass, where they grew; and yet they are loved by all, and are sought for by every one.

The lily, though last mentioned, comes not least. Proudly its graceful head is held up to the bright rays of the warm sun, and is one of the most beautiful of flowers. It is pure and white, and its golden petals looking inquisitively up from its white surrounding, make one think how true is that verse of scripture: "Consider the lilies of the field how they grow, they toil not, neither do they spin. Yet I say unto you, even Solomon in all his glory was not arrayed like one of these."—*Mills Quarterly*.

THE MOTHER AND HER CHILD.—Some mothers make it a practice to go themselves to fetch the candle when the children are in bed; and then, if wanted, they stay a few minutes, and hear any confessions or difficulties, and receive any disclosures of which the little mind may wish to disburden itself before the hour of sleep. Whether then, or at any other time, it is well worth pondering what a few minutes of serious consultation may do in enlightening and rousing, or calming the conscience; in rectifying and cherishing the moral life. It may be owing to such moments as these that humiliation is raised into humility, apathy into moral enterprise, pride into awe, and scornful blame into Christian piety. Happy is the mother who can use such moments as she ought.

GOOD HEALTH.

Using the Same Towel.

Health follows neatness and disease the departure from it. The use of the same towel by many, common in a public place, though more allowable than the use of the same tooth brush, is nevertheless a not much healthier practice. A prominent oculist says that the contagious Egyptian or granular inflammation of the eyes is spreading rapidly throughout the country, and adds, "I have in many, and I may say in the majority of cases been able to trace the disease to the use of the so-called rolling towels. Such towels are generally found in our country hotels and the sleeping apartments of the working classes, and being thus used by nearly every one, are made carriers of one of the most dangerous, and as regards its symptoms, most troublesome diseases of the eye. I therefore would strongly recommend that the use of the rolling towel be abolished, for thereby we will discard one of the great instruments for the spread of such a dangerous disease of the eye, by which thousands of workmen are annually deprived of their means of support."

APoplexy—WHAT PRODUCES IT.—A middle-aged physician once said to the writer: "As I was walking down the street after dinner I felt a shock in the back of my neck, as if some one had struck me; I have not felt well since. I fear I shall die, just as all my ancestors have, of paralysis. What shall I do?" The answer was: "Diminish the tension on the blood vessels, and there need be no fear of tearing them in a weak place." Now this expresses in plain terms the exact cause of apoplexy in the majority of instances; and it is one, too, which every one has it in his power to prevent.

A blood vessel of the brain, from causes which will presently be mentioned, has lost some of its elastic strength; food is abundant; digestion is good; blood is made in abundance, but little is worked off by exercise; the tension on every artery and vein is at a maximum rate; the even circuitous flow is temporarily impeded at some point, throwing a dangerous pressure on another; the vessel which has lost its elastic strength gives way, blood is poured out, a clot is formed, which, by its pressure on the brain, produces complete unconsciousness. This is the apoplectic stroke. It will be perceived that there are two leading conditions upon which the production of the stroke depends: a lessened strength in the vessel, and an increased tension on it.—*Popular Science Monthly*.

SIMPLE DYSPePSIA REMEDIES.—Dyspepsia arises from a great variety of causes, and different persons are relieved by different remedies, according to the nature of the disease, the constitution of the patient and condition of the stomach. We know of a lady who has derived great benefit from drinking a tumbler of sweet milk—the richer and fresher the better—when ever a burning sensation is experienced in the stomach. An elderly gentleman of our acquaintance, who was afflicted for many years with great distress after eating, effected a cure by mixing a tablespoonful of wheat bran in half a tumbler of water, and drinking it half an hour after meals. It is necessary to stir quickly and drink immediately, or the bran will adhere to the glass and become pasty. Coffee and tobacco are often very detrimental to persons troubled with dyspepsia. As a general thing they should be avoided by persons afflicted with dyspepsia; although they may not be especially injurious to some constitutions, when used moderately. Regular eating of nourishing plain food, and the use of some simple remedies like the above, will effect in most cases quicker cures than medicines obtained from the druggist.

REMEDY FOR NEURALGIA.—A friend of ours who suffered severe pains from neuralgia, hearing of a noted physician in Germany who invariably cured the disease, crossed the ocean and visited Germany for treatment. He was permanently cured after a short sojourn, and the doctor freely gave him the simple remedy used, which was nothing but a poultice and tea made from our common field thistle. The leaves are macerated and used on the part affected as a poultice, while a small quantity of the leaves are boiled down to the proportion of a quart to a pint and a small wine glass of the decoction drank before each meal. Our friend says he has never known it to fail of relief, while in almost every case it has effected a cure.

DOMESTIC ECONOMY.

Is Alcohol Food?

This is one of the questions of the present day to which the voice of scientific men returns various answers. The prevailing idea seems to be that it is food in a very small degree. The latest authoritative announcements on the subject have been made in a very interesting series of lectures by Dr. Richardson. He comes to the conclusion that alcohol cannot by any ingenuity of excuse for it be classified among the foods of man. It neither supplies matter for construction nor heat. On the contrary, it injures construction and reduces temperature. This conclusion is the result of a long series of experiments, extending over three years, on warm-blooded animals of various kinds, including birds; on the human subject in health and on the same subject under alcoholic disease.

Foods, as supplied to the human system, are of two kinds, tissue-building foods and heat-supplying foods. Nitrogenous bodies perform labor of the first kind, tissue-building, and probably are, to a small extent, heat-producers too. Alcohol, however, contains no nitrogen and cannot therefore rank as a tissue-building food. This conclusion will surprise many who have noticed how ale fattens people, but this fattening is the result not of the alcohol but of the sugar or starchy matter which is taken along with it, and it would appear that drinkers of pure spirit, i. e., spirit unmixed with sugar do not fatten upon it.

There is no doubt but that alcohol is used up in the body, that it is assimilated in some manner. Careful and long continued experiments have been made by many scientific men on this subject. The late Dr. Anstie, especially, made some exhaustive experiments in the matter, and came to the conclusion that of the alcohol administered but a very small fraction was yielded by all the excretions combined. He proved that an animal, a terrier dog, weighing 10 lbs., could take with comparative impunity nearly 2,000 grains of absolute alcohol in ten days, and that on the last day of his regimen, he only eliminated by all the channels of elimination 1.13 grains of alcohol. This fact was of itself sufficiently remarkable, but another still more important remains to be told. In completion of his research after an animal had been treated with alcohol, as above described, Anstie killed it, instantly and painlessly, two hours after it had received the last quantity—95 grains—of spirit. Then the whole body, including every fragment of tissue with all the fluid and solid contents, was subjected to analysis, with the result of discovering only 23.66 grains of spirit.

Alcohol, it thus appears, is decomposed in the animal body. By its decomposition in air, heat and power may be obtained, and why may it not then in the other case? The answer to this, that it is not. As a result of his researches Dr. Richardson recognizes four progressive stages of change of animal function from alcohol, which are shortly described as follows:


The first is a stage of excitement when there exists that relaxation and injection of the blood vessels of the minute circulation with which we have become conversant. The second is the stage of excitement with some muscular inability and deficient automatic control. The third is a stage of rambling, incoherent, emotional excitement, with loss of voluntary muscular power, and ending in helpless unconsciousness. The fourth and final stage is that in which the heart itself begins to fail, and in which death in extreme instances of intoxication closes the scene. These stages are developed in all the warm-blooded animals, and the changes of temperature throughout the whole are relatively the same.

In the first stage the external temperature of the body is raised. In birds—pigeons—the rise may amount to a full degree on Fahrenheit's scale; in mammals it rarely exceeds half a degree. In man it may rise to half a degree, and in the confirmed inebriate I have seen it run up to a degree and a half. The heat felt in this stage might be considered as due to the combustion of the alcohol; it is not so, it is in truth a process of cooling.

In the second stage, the temperature first comes down to its natural standard, and then declines below what is natural. In birds it reaches from one and a half to two degrees; in other animals, dogs and guinea pigs, it rarely exceeds one degree; in man it is confined to three-fourths of a degree.

During the third degree the fall of temperature rapidly increases, and as the fourth stage is approached it reaches a decline that becomes actually dangerous. In birds the reduction may be five degrees and a half, and in other animals three. In man it is often from two and a half to three degrees. There is always during this stage a profound sleep or coma, and while this lasts the temperature continues reduced.

Thus it would appear that alcohol fails also as a heat-producing food; that it is, in fact, a lowerer of the temperature. These facts are of great interest to those living in cold climates where spirits are so frequently taken to "keep one warm." It is well known that men exposed to long continued cold cannot venture to use spirits.—*Ex.*



PACIFIC RURAL PRESS

PUBLISHED BY
DEWEY & CO.

A. T. DEWEY. W. B. EWER. G. H. STRONG. J. L. BOONE
PRINCIPAL EDITOR.....W. B. EWER, A. M.

Office, No. 224 Sansome street, Southeast corner of California street, where friends and patrons are invited to our Scientific Press, Patent Agency, Engraving and Printing establishment.

Subscription rates payable in advance—For one year, \$4; six months, \$2.25; three months, \$1.25. Remittances by registered letters or P. O. orders at our risk.

ADVERTISING RATES.—1 week. 1 month. 3 months. 1 year

Per line.....	.25	.80	\$2.00	\$5.00
One-half inch.....	\$1.00	\$3.00	\$7.50	24.00
One inch.....	2.00	5.00	14.00	40.00

Large advertisements at favorable rates. Special or reading notices, legal advertisements, notices appearing in extraordinary type or in particular parts of the paper, inserted at special rates.

No Quack Advertisements inserted in these columns.

GET UP CLUBS FOR THE RURAL PRESS.

OLD SUBSCRIBERS and other reliable persons are authorized to get up clubs of five or more subscribers for this paper at \$3 per annum for each name. Our terms for all subscribers are cash in advance. Postage will be prepaid by us after January 1st, 1874. The papers will be addressed singly to each individual. Regular subscription price \$4. Sample copies free. Let those who will work for the Rural Press in mind that they will confer a lasting benefit on new subscribers, besides improving their own talents by business practice. Try your hand and report at once. We offer all a chance. You do not know what can be done till you try!

SAN FRANCISCO:
Saturday, May 8, 1875.

TABLE OF CONTENTS.

GENERAL EDITORIALS.—Improvements in Box-Making; Still Another Vegetable Fiber; Pork Prospects; Are there any Poultry Yards in California? The Immigrant Bureau; A Late Summer Pear, 305. The Department on Fertilizers; From the Manger, 312. "John" as a Soldier; The Thadford Baling Press, 313. Patents and Inventions, 316.

ILLUSTRATIONS.—Benra Coat Pear, 305. The Thadford Baling Press; A Chinese Soldier, 313.

CORRESPONDENCE.—From Merced County; An Arizona Flower; Crops and Stock in Sacramento County; The Footfalls for Immigrants; From St. Helena, Napa County; An Intoxicating Grape; It Pays to take the "Rural Press;" From Westminster, Los Angeles County; Enquiries about Grasses, 306.

THE HORSE.—Curb or Colic in Horses, 307.

SHEEP AND WOOL.—Eastern Wool Market; Sheep Raising, 307.

USEFUL INFORMATION.—Recipes for the Shop; Filing; Shrinking of Seasoned Timber; The Art of Drawing; Performance of Small Engines, 307.

PATRONS OF HUSBANDRY.—Progress of the Patrons in California; New Granges; Meetings; Etc., 308-9.

AGRICULTURAL NOTES from various counties in California, 309.

HOME CIRCLE.—Farmers' Girls (Poetry); Farm House Chat; The Coming Man; Companionship; Polite Children; "Hit Him Again, He has no Friends;" Female Society, 310. The Great Religious Excitement in England; A Truthful Sketch; The Coming Girl; How to Economize, 311.

YOUNG FOLKS' COLUMN.—For the Little Folks; Flowers; The Mother and her Child, 311.

GOOD HEALTH.—Using the Same Towel; Apoplexy—What Produces It; Simple Dyspepsia Remedies; Remedy for Neuralgia, 311.

DOMESTIC ECONOMY.—Is Alcohol Food? 311.

HORTICULTURE.—Strawberry Culture in Santa Clara Valley, 313.

MISCELLANEOUS.—International Exhibition, 1876; A Vermin Trap, 307. Commercial Points for Hop Growers; Agricultural Items; Industrial Items, 309.

DEMAND FOR GYPSUM.—We are pleased to learn that since we called the attention of our readers to gypsum as a fertilizer, there has been a marked increase in the demand for it. Among other appreciative parties who have taken the matter in hand, Mr. Sterns, of the California University, has procured a ton of gypsum for the grounds at Berkeley. Our friends who have given this fertilizer a trial will confer a favor on us, and on our readers also, by reporting through the Press concerning its merits, with the circumstances under which it was used, method of applying it, etc.

ON FILE.—"Education of Young Women in Agricultural Colleges," J. C. C. (will appear in our "Home Circle" next week); "Impervious Boot Soles," R.; "Letter from Cold Springs, J. G. C.; "Roses and Roses," J. C. C.; "Angora Goat Breeders' Association," N. G.; "In Memoriam," B. P.; "Letter from Riverside," R.

THE Petaluma Argus reports the crops in Bennett valley in good condition and promising more than an average yield. There are numerous vineyards in the valley, and one of the largest wine manufacturing in the county. The late frosts did but little injury, and the indications now are that there will be a fall average yield of fruit.

THE Virginia City Enterprise says: It is the opinion of leading ranchers that the crops this year will be equal to any since the settlement of the State.

The Department on Fertilizers.

The Department of Agriculture could not have chosen a better subject for "a leader" in their report for February and March than that of fertilizers; and in no instance has this subject been handled more judiciously. There is not among all the subjects connected with practical and theoretical agriculture one that occupies a more prominent position than this; and it is probably for this reason that so much quackery has been spent upon it. So utterly profitless has the treatment of this important subject become, that farmers probably would not have expected any more from the Department in this case than a little fatherly advice about using more manures, with a confusing chemical analysis thrown in here and there.

Instead of this, however, the Department very properly devotes the entire report to a thorough diagnosis of the case, without attempting to prescribe. With this view it issued circulars of inquiry, not only to all the States and Territories, but to all the counties thereof. Answers were received from 1,096 counties to the following questions: What fertilizers are used in your county? What proportion of such fertilizers are farm yard manures? Home made composts? Commercial fertilizers? Are the latter deemed profitable? Is green manuring with clover practical? If so, is the full crop, the second growth, or only the stubble turned under? Please state the practice and its results in soil improvement. Specific and significant facts desired rather than general news.

The following table, which gives the proportion of farm yard manures and other fertilizers presents the average of the returns of each State:

States.			States.		
Farmyard Manure	Other fertilizers	Pct.	Farmyard Manure	Other fertilizers	Pct.
Maine.....	73	27	Louisiana.....	70	30
New Hampshire.....	84	16	Texas.....	70	30
Vermont.....	85	15	Arkansas.....	65	35
Massachusetts.....	75	25	Tennessee.....	80	20
Rhode Island.....	78	22	West Virginia.....	77	23
Connecticut.....	81	19	Kentucky.....	97	3
New York.....	68	32	Ohio.....	85	15
New Jersey.....	69	31	Michigan.....	73	27
Pennsylvania.....	76	24	Indiana.....	84	16
Delaware.....	72	28	Illinois.....	95	5
Maryland.....	40	60	Wisconsin.....	90	10
Virginia.....	59	41	Minnesota.....	98	2
North Carolina.....	51	49	Iowa.....	100	
South Carolina.....	26	74	Missouri.....	95	5
Georgia.....	33	67	Kansas.....	100	
Florida.....	45	55	Nebraska.....	100	
Alabama.....	53	47	California.....	98	2
Mississippi.....	60	40			

It will be seen by the above table that the manure of farm animals is the main reliance in fertilizing; especially in California, where the percentage of farm yard manure is ninety-eight, with two per cent. only of other fertilizers.

As might be expected the correspondents in their reports speak discouragingly of the use of commercial fertilizers. They are free to admit that these articles have a positive value in supplying lacking material for plant growth; but the general opinion is, that the genuine articles are held at too high prices, and that such as are held at moderate prices have been cheapened by fraudulent manipulation. In no case as reported are they supplying the place of farm yard manure; they are only used as additions, after that has been exhausted. The principal advantage derived from the use of commercial fertilizers is hastening maturity; and where time is the great consideration, as with garden vegetables, they are still used with profit. Still it will not do to pronounce a general condemnation of them, even for farming purposes, for in some localities and on certain crops, they are still considered almost indispensable. While a majority of returns from New England, including all from New Hampshire, report adversely in regard to the use of commercial fertilizers, Oxford, Penobscot and Cumberland counties in Maine, report favorable results from their use; particularly, gypsum on young grass in the spring. Among these commercial articles gypsum seems to have been most successful in retaining the confidence of the farming community, while guano is in the poorest repute of all.

According to this report home-made composts are growing in favor. Farmers have learned that it is better to buy the commercial ingredients for composting, and do their own compounding, than to procure the ready-made article, for, in the first place, they know what they are buying, and when it is bought they can combine with it whatever they find available and what is required by the peculiar circumstances of the case. In most cases, however, composts are formed without the use of any commercial ingredients. Where liquid manure is saved in cellars and vats under stables and pens, this is combined with swamp muck, sawdust, dirt from the road and other absorbents, producing valuable fertilizers.

In the neighborhood of Philadelphia and other Eastern cities thousands of loads of street sweepings are annually hauled to the farms and mixed with stable manure in the proportion of two to one, forming a compost that is highly valued. Cotton seed is largely used in the cotton growing States as an ingredient in composting; while on the coast in the northern Atlantic States, marine fertilizers, such as

From the Manger.

The RURAL PRESS is not in the habit of calling people "asses," nor is it accustomed to the epithet "dog," as applied to itself; but when we inform our readers that the editor of the *New Italy* has hurled the latter term at us, and relate the circumstances under which it occurs, they would, no doubt, justify us in descending to the animal level on this occasion and retorting accordingly. But we have no desire or inclination to descend to this level, and will only give a plain statement of the case, leaving it with our readers to "place him" according to their own notions in regard to natural history.

The *New Italy* is, it seems, "published by the Los Angeles Immigration and Land Co-operative Association." It is a monthly, and in its April number it puts forth an article under the head "Dogs in the Manger," in which it accuses "the press of Central and Northern California," of having "acted the dog in the manger part toward the Southern part of the State." After disposing of the rest of the canine journals in a summary manner, it "goes for" the RURAL PRESS in the following prolonged bray:

"The PACIFIC RURAL PRESS stands at the head of the list in giving us a severe letting alone. Each week the PRESS gives a page of clippings from its exchanges touching agricultural matters, and arranging these extracts under the headings of their appropriate counties. During the past six months we have noticed the heading of our county in that paper only once, and then over a single item, mentioning the fact that we needed rain. Last fall when State Lecturer J. W. A. Wright was with us he wrote a fine letter (such a letter as he always writes) regarding our resources and advantages, and sent it to the PRESS for publication. Mr. Wright was and is a regular correspondent of the PRESS, yet this letter found its way to the waste basket to be seen no more forever. Considering the fact that the PRESS has an extensive circulation in this county as the recognized organ of the Grange movement, is it not time for Grangers here to give our pet organ a little snub to remind it of its remissness?"

Now, "just for the fun of the thing," let us give a brief record of the course of the PRESS in this matter, during the six months for which we are called to account. To begin with, on our first page, December 19, we gave a portrait, with biographical sketch, of Thos. A. Galey, President of the association of which the *New Italy* is the organ. Probably the writer was so ravenous after the contents of the aforesaid manger that he was not aware of this. Then, as regards our "Agricultural Notes," which we give each week from the different counties, we ran through our files for the same period to note what possible foundation there could be for the attack in this quarter. We find that in the "Agricultural Notes" of December 19, 1874, February 27, March 2 and 27 of 1875, Los Angeles county is duly represented. We were aware of the fact, before the *New Italy* called our attention to it, "that the PRESS has an extensive circulation in this county," and glancing over the correspondence to the PRESS for this same six months, find that no county in the State occupies more space there than does Los Angeles; yet this writer says "we have noticed" only one item from that county alluding to the want of rain. If "We" had paid proper attention to the contents of our paper, instead of sticking his nose into our waste basket, he would have derived improvement therefrom in many respects.

The charge against the PRESS in connection with Mr. Wright is, perhaps, not more false than the others; but it is more obnoxious on account of its evident malicious intent. We are quite free to acknowledge that "Mr. Wright was and is a regular correspondent of the PRESS," but we deny that any letter of his ever went into our waste basket. Our only trouble in connection with Mr. Wright's letters is, we can't get enough of them; and we have no fear that he or his friends will "give our pet organ a little snub," from the instigations of such contemptible mischief-makers.

New Italy is manifestly in want of a new editor.

AGRICULTURAL STUDENTS AND FARMING.—It is stated on the authority of President Anderson, of the Kansas Agricultural College, that of the whole number of students leaving that institution since 1867, not one has chosen farming for a business. This does not look credible, and yet it may be true. Perhaps these young men were induced more by companionship than anything else to seek the city, and it is by no means improbable that as their minds mature they will conclude that a country life, after all, is not to be despised. Some of our best farmers began their careers in town; they obtained a good knowledge of general business, and then, after due reflection, they saw the advantages they would possess should they choose a rural life. Much, however, will certainly depend on the kind of training the young men receive in college. It will be too bad if our agricultural colleges fail to bear good fruit.

THE almond crop will be a total failure in Napa county.

"No damage from the frost," is the cheering intelligence proclaimed by the Santa Cruz Sentinel. A fair crop of fruit may be expected.

HORTICULTURE.

Strawberry Culture in Santa Clara Valley.

[From our Regular Correspondent.]

Messrs. Editors:—The climate of California is so unlike that of the Eastern States, or rather, owing to the peculiar shape of our mountain and valley lands, and the currents of air from the ocean, we have so many climates, that it will take a long time before we can fully understand what these different climates are best adapted to produce. Within the limits of the State we have the climate and soil adopted to raise nearly all the grains, fruits, vegetables, trees and plants of the world, except, it may be, some of the most tropical. But lines of latitude as laid down on the map will not do to depend upon here as in other countries. The old Mission fathers who planted oranges at Los Angeles, never dreamed that they would ever be raised so far north as Putah creek; and our Eastern friends can hardly believe that the earliest fruits and vegetables in the San Francisco market come not from the south, but far north of the bay; and that Marysville has a hotter climate than San Diego. And it sounds strange to hear people talking of the different climates of the same valley—as at Saratoga, for instance, ten miles southwest from San Jose, they claim, and rightfully too, that they have a warmer and more equable climate than we have here, because they are sheltered from the cool winds of the bay by a spur of the mountains.

It will take many years of experience and close observation before we get everything in its right place here, but when this has been accomplished, California will be considered one of the most wonderful countries in the world. The early settlers, no doubt, planted everything indiscriminately on the same field, as they were used to doing in the East; but they soon began to learn that everything that they planted would not do alike well upon the same land and in every neighborhood, as in Ohio or Missouri. Ten or twelve years ago the strawberries for the San Francisco market were raised in Alameda county—then some years later they were produced on the little fruit ranches in "the Willows," a body of rich garden land near San Jose, on the south; but the strawberry plant requires an abundance of water as well as rich soil, and this had to be pumped from wells by wind mills, or by horse and steam power—this added much to the cost of raising them, besides the wind was not always reliable, and machinery was liable to break and get out of fix; so from these vexatious causes, the supply of water was often insufficient and uncertain when most needed. In the meantime, while the Willow folks were trying to supply the market with strawberries under these difficulties, they were gradually introduced into the country north of San Jose, which I shall designate as the

Artesian Well Region,

Which extends from the southern limits of the city, (which is just within the bounds of this region) northward to the bay, a distance of twelve miles; and from the Milpitas road east of Coyote creek, to near Lawrence station on the west, a distance of six or seven miles.

Here, it seems, the strawberry plant has found all the conditions of climate and soil best adapted to its most successful cultivation—a rich, deep soil, with an abundance of water from ever-flowing wells, and the cool moist air from the bay, necessary to keep the plants vigorous and fresh during all the fruiting season, which extends from early spring to the middle of summer, or until other fruits become so abundant and cheap in the market that it will not pay to pick them.

In this favored region there are already more artesian wells than can be found in a region of like extent in the world, and more are being made every year, as the country improves. I heard of several new ones having been sunk this spring, one by N. Brochet, which is 400 feet deep, and flowed fifteen inches over a seven inch pipe; another by S. Q. Broughton, 392 feet deep, and flows nearly as strong. There are a great many wells in this neighborhood nearly as strong as these.

Perhaps some place may yet be found where the strawberry will do as well, perhaps even better, than it does here; but this is now, I think, its home in California; it is here the right thing in the right place; not but what this is a good place to raise many other things as well, which we may at some other time show; but we are writing now about strawberries, more particularly.

How they are Raised.

All the strawberries are raised by Chinamen on the shares; that is, they plant, cultivate, irrigate, pick the berries and pack them in the chests ready for the market, for one-half the proceeds after deducting the cost of chests, boxes, freights and commissions for selling. The landholder furnishes the land, tools to cultivate, water to irrigate, and cheap little houses for the Chinamen to live in, as his part of the contract. These contracts are made to extend for a number of years, the Chinamen taking care of the strawberry plantation the year round. Before planting the ground is well prepared and nicely graded, so that the water will pass evenly down the rows between the plants, which are set in rows, twenty-four inches and

eighteen inches apart alternately, and the plants one foot apart in the rows. A little ditch is made in the narrow space between the plants to irrigate them; the wider space is used as a walk while picking the fruit or cultivating the ground.

How They are Marketed.

In former years, when the railroad company had a monopoly of the carrying trade between this valley and San Francisco, the fruit men claimed that they had good cause for complaint, on account of high charges and poor accommodations, which led to arrangements resulting in bringing

The Steamer "Relief"

to their relief, which now makes regular trips

"patches," amounting in the aggregate to 1,110 acres, and estimating those I was unable to see at 170 acres, which I think is rather below than above the correct number, gives us 1,280 acres within this artesian well region, just two sections, and if all were planted together, would make a solid strawberry patch two miles in length by one in width.

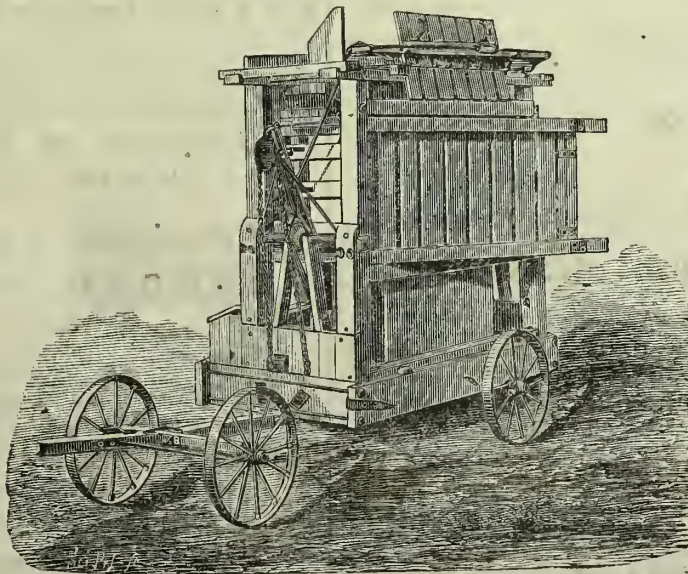
If it would be of interest to the readers of the Press, I could give a list of the names, with the number of acres each had, but presume it would not be worth the space occupied. Suffice to say, Mr. C. E. Wade has the champion patch for size, 80 acres. James Murphy, 60 acres; William Boots and Judge Thomas, 50, each; Robt. Syer, 45; J. Johnson, 40;



A CHINESE SOLDIER.

between Alviso and the city. Alviso being located at the junction of the Alviso slough with the Gaudaloupe river, about three miles from the bay of San Francisco, is a convenient and central point to receive the strawberries and asparagus fresh from the field in the eve-

ning, to be delivered at daylight the next morning in the San Francisco market. The steamer leaves Alviso every evening at 8 o'clock; Saturdays excepted, and returning leaves the city at 9 o'clock every morning, Sundays excepted. The charge for strawberries per chest is 42½¢ for freight and wharfage, the chest returned free. The boat is also fitted up in good style to carry and accommodate passengers, who can hardly fail, under the care and attention of such gentlemen as the captain of the Relief and his officers, of enjoying a ride on the bay of San Francisco. The fare to the city from Alviso is only 75 cents, and from San Jose and Santa Clara, \$1.00. I mention these facts particularly, as the running of this boat is closely connected with the interests of the fruit men of this valley.



THE THADFORD BALING PRESS.

the early crop was much injured by late frosts, the lovers of this delicious fruit need not be alarmed; though a little late, they will soon be in the market now by the ton; I can't say just how many, perhaps in the flush of the season, from 30 to 40 tons per day.

There is also a large amount of other, small fruit raised in this part of the valley, of which I may have something to say in a future letter. I took note of 166 acres in asparagus, also among the strawberry men. In this deep, rich soil, with plenty of water, it does splendidly; and when San Francisco gets to be a city of a million of people, this little region I have been talking about can easily supply them with all the asparagus, strawberries and cream, and other such nick-nacks as they may want.

It was very pleasant driving over smooth, well kept roads, among these beautiful California homes; all their gates standing wide

By Whom are they Raised?
I interviewed or had reports from fifty

open, as if they were not afraid to have you drive in, (I do hate getting down to open gates); some of the farmers here are on new improvements, but many of them have been here long enough to have nice, tasty houses, surrounded with such a wealth of beautiful trees, shrubs and flowers, of fountains of water and nice smooth drives and walks, as can only be found among the most wealthy and aristocratic people in other countries.

Nor was I at all surprised to find in a community of so much intelligence, taste and progress, many friends and patrons of the Pacific Rural Press. Yours, truly, G. W. M.
San Jose, April 26, 1874.

"John" as a Soldier.

The question, "What shall we do with 'John'?" has not as yet become a particularly serious one in California; though that it may ultimately form a knotty problem for our political economists is the opinion of many. We are becoming really dependent upon our Celestial population for the fulfillment of many of our needs. "John" has built our railroads, he cooks our meals, starches our shirts, helps fill our jails and is useful in many other ways. We never, however, associate the Chinaman with military affairs, and although he is credited with being the inventor of gunpowder, it would be a flight of fancy to imagine "John" seeking the bubble reputation at the cannons' mouth.

It is probable that we scarcely ever see in this country the best specimens of Chinese manhood. The military class are said to be a larger and better developed body of men than the riff-raff which flock to our shores. The engraving on this page shows a man more commanding in stature and noble in aspect than any we are accustomed to jostle in our daily walks in the cities or towns of this State. The standing army of the Empire is kept up to a large number, though the exact data of China's military establishment is unknown to "outside barbarians."

In the course of a very interesting and ingenious lecture on "The Origin of the Chinese Races," delivered at the Academy of Sciences in this city lately, Mr. Charles W. Brooks, whose large acquaintance with the subject renders him eminently qualified to speak, gave as his opinion that the Mongolian race came at a very remote period from some part of this continent, probably Peru. His theory was ably sustained by records and facts gathered largely from Chinese and Japanese sources.

If Mr. Brooks should convince us that "John" was but returning to claim his own again, we might look with more complacency on his constantly increasing inroads.

The Thadford Baling Press.

There is no illustration that we could give on our pages at this time that would interest our readers more than a hay press. The Thadford Baling Press, which is represented by the accompanying illustration, was patented in 1866, is manufactured by C. P. Hatch, of Petaluma, and Marcus C. Hawley & Co., of this city, are the agents for its sale.

The following points of merit are claimed for it, and the practical hay maker will see that they embrace all the requirements of a complete baling press: It is the only portable press used. It is mounted on iron wheels and axles, is ready to move wherever desired, and does away with an extra wagon, carrying its tools, rope and fixtures. It presses the bales from both top and bottom, the followers moving a less distance, consequently it works quicker. The bales are tied before the doors are opened, saving rope and making a smoother, handsomer bale. It delivers the bales without the least trouble, at a convenient distance from the ground. It is less liable to get out of order, is simple to manage, will do as much work as any press made, and is cheaper than any press of the same capacity.

THE CENTENNIAL EXHIBITION.—We have received from Mr. Burnet Landreth, Chief of Bureau of Agriculture, the advance sheet of the circular about to be issued by this Bureau, calling upon the agriculturists of America to aid in making a proper exhibit of this great department of our national wealth and industry. This exhibition will afford an opportunity for the agriculturists of the Pacific coast to secure the position which we are justly entitled to, and it is to be hoped that they will avail themselves of it. The time is approaching when concert of action and strict business arrangements must be called forth. Our agricultural societies should enter this as one of the leading matters demanding attention at their meetings. The Rural Press will do all in its power to aid organized or individual effort in this direction.

ABOUT Salinas and Castroville the heavy fogs are supplying the want of rain, and so far the drouth has affected the crops but little.

THERE is a man at Rutherford station who thinks he has discovered a sure cure for the glanders. He is not the first to think so.

Good judges reckon the wheat crop of Butte county the best north of San Francisco.

BREEDERS' DIRECTORY.

PURCHASERS OF STOCK WILL FIND IN THIS DIRECTORY THE NAMES OF SOME OF THE MOST RELIABLE BREEDERS. OUR RATES—Six lines or less inserted in this directory at 50 cts a line per month, payable quarterly.

CATTLE.

R. ASHBURNER, Baden Station, San Mateo Co., Cal., breeder of Short horn cattle. Pure Bred Bulls for sale, from cows of choice milking strains.

J. BREWSTER, Galt Station, Sacramento Co., Cal., breeder of Short-Horn Cattle.

J. D. CARR, Gabilan, Monterey Co., Cal., breeder of Trotting Horses, Short-Horn Cattle, Thoroughbred Spanish Merino Sheep and Swine.

A. MAILLARD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.

W. L. OVERHISER, Stockton, San Joaquin Co., Cal., breeder of Short-Horn Cattle and Berkshire Swine.

PAGE BROTHERS, 304 Davis street, San Francisco, (or Cotate Ranch, near Petaluma, Sonoma Co.): Breeders of Short-Horns and their Grades.

STANTON & POWERS, Sacramento, Cal. Breeders of Jersey Heifers and Bull Calves at low rates. Address L. C. Powers, Sacramento, Cal.

MOSES WICK, Oroville, Butte Co., Cal., breeder of Short-Horn Cattle. Young bulls for sale.

SHEEP AND GOATS.

H. F. BUCKLEY, Hopeton, Cal. Thoroughbred also 1/2 and 3/4 Cotswold grade sheep.

MRS. ROBERT BLACOW, Centerville, near Niles Station, Alameda Co., Cal. Pure-Blooded French Merino Sheep for sale.

N. GILMORE, El Dorado, El Dorado Co., Cal., importer and breeder of Angora Goats.

LANDRUM & RODGERS, Watsonville, Santa Cruz County. Pure-Bred Angora Goats and Cotswold Sheep for sale.

SEVERANCE & PEET, Niles, Alameda Co., Cal., breeders of Thoroughbred Spanish Merino Sheep.

A. G. STONESEFER, Hill's Ferry, Stanislaus Co., Cal., breeder of Pure-Blooded French Merino Sheep.

L. U. SHIPPEE, Stockton, Cal. Importer and Breeder of Spanish Merino Sheep, Durham Cattle and Essex Swine.

POULTRY.

GEO. B. BAYLEY, Cor. 16th and Castro streets, Oakland, Cal. Imported Brahmas and other choice Fowls for sale.

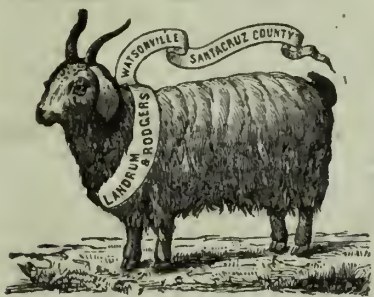
ALBERT E. BURBANK, 43 and 44 California Market, San Francisco, importer and breeder of Fancy Fowls, Pigeons, Rabbits, etc.

M. EYRE, Napa. Bronze Turkeys, Emden Geese, Choice Fowls, Pigeons, Rabbits, Ferrets.

WILLIAM KNOWLES, Brooklyn, Alameda Co., Cal., has for sale Eggs for Hatching, carefully packed, from pure-bred Bronze Turkeys, at \$7.50 per dozen; Brown Leghorns at \$4.00 per dozen; Houdans, White Leghorns and Buff Cochins at \$3.00 per dozen; two dozen for \$5.00. Sent C. O. D. to any address.

Mrs. L. J. WATKINS, Santa Clara. Premium Fowls. White Leghorn, S. S. Hamburg, Game Bantams, and Aylesbury Ducks. Also, Eggs. 21v8-3t

Live Stock Notices.



We respectfully invite the attention of wool growers to our fine stock of Cotswold Sheep and Angora Goats. We have 200 head of Pure Bred Angoras to select from; we have some of the finest Goats in America; we guarantee everything we sell to be as represented; our prices are as low as any in America for the same grade of stock. Call and see, or address,

LANDRUM & RODGERS,
13v7-cow-1f Watsonville, Cal.

Thoroughbred Spanish Merinos
FOR SALE.

60 one and two-year old Thoroughbred Spanish Merino Rams, California bred, from Ewes imported from Vermont, and sired by Severance & Peet's Celebrated Ram "Tremont," and by their Ram "Green Mountain," which took the first premiums at the Bay District and State Fairs. Last shearing—35 1/2 lbs.—years' growth.

Also, about 100 Ewes and Lambs, all of "Green Mountain" Stock, bred this year.

B. F. WATKINS,
Santa Clara, Cal.

FOR SALE.

400 Pure Blood French Merino Rams,

On the Orlistima Ranch, six miles west of Hill's Ferry, Stanislaus County, Cal. All Rams delivered at the railroad, free of charge. Terms easy and prices liberal.

A. G. STONESEFER.

The Imported Draft Stallion,
ADOLPH,

Will make the Season of 1875 at the Stable Proprietor,
COR. FOURTEENTH AND MISSION STREETS,
SAN JOSE,
COMMENCING MARCH 1st, AND CONTINUING FOR NINETY DAYS.

Adolph was imported from Belgium to Illinois in June, 1872, and to California in October last. He is a pure-bred Draft Horse, of the French Farnaback stock, of a dark brown color, good life, kind disposition and fine movement for a horse of his size. Is seven years old, 16 1/2 hands high, and weighs 1,650 pounds.

Terms, For the Season - - - \$25.00.
Payable during the season in U. S. gold coin, or \$10 paid down and \$15 payable when mare is known to be with foal.

Mares from a distance can be kept on good pasture and cared for at \$4 per month. All accidents and escapes at the risk of the owner.

I have imported 12 head of the same stock of horses from Illinois, and invite examination and comparison with any stock of the class in the State. Four three-fourth blood stallion colts for sale. Can be seen on my farm, three and one-half miles east of the city.
L. V. WILLITS.



Pure Blooded French Merino Rams

For sale by MRS. ROBERT BLACOW, of Centerville, Alameda County, Cal., near Niles Station, on the Western and Southern Pacific Railroad.

These Sheep are guaranteed of pure descent, from the French Imperial Flock at Rambouillet, and are equal, if not superior, to any of this breed in size and quality of wool, and are proved to be the best shearers in the world.



GABILAN HERD

Spanish Merino Sheep.

I have just purchased of Mr. George Hammond, of Vermont, three car-loads of Spanish Merino Sheep, (335 head, Ewes and Bucks) which, with others that I purchased last Fall, (also direct from Vermont) makes my band of Thoroughbred Spanish Merinos about 650 head.

I am prepared to sell both Bucks and Ewes, of Pure Blooded Spanish Merinos—as good as can be had in the World—so says Mr. Hammond. Parties interested will please give me a call. I am ten miles from Salinas City, Gabilan P. O., Monterey county.

J. D. CARR.

N. B.—I have also Good Graded Bucks for sale, and can dispose of some Good Graded Ewes. J. D. C.

E. W. WOOLSEY,

BREEDER OF



THOROUGHbred

SPANISH MERINO SHEEP,

From Vermont Premium Stock,

At Berkeley, Alameda County. Horse cars every half hour from Broadway Station, Oakland.

CITY OFFICE, 418 CALIFORNIA STREET, S. F.

12 Short-Horn Bulls,



fat and sleek, thoroughbred, just from Kentucky, at SAXE'S Stables, 35 Ritch Street, between Folson and Harrison, two blocks from Grand Hotel. Inquire at SAXE'S Stables, or Room 32 Rens House. 3v9-3m

Poultry Breeders.



Woodland Poultry Yards.

W. J. PRATHER, - - Proprietor.

PRICE LIST:

EGGS PER DOZEN.	FOWLS PER TRIO.
Light and Dark Brahmas.....	\$5 to \$25
Buff and Partridge Cochins.....	15 to 25
White Cochins.....	25 to 25
White Polands.....	15 to 25
Houdans.....	15 to 25
S. and G. Spangled Hamburgs.....	15 to 25
White Leghorns.....	12 to 20
Brown Leghorns.....	15 to 25
Golden Seabright Bantams.....	12 to 15
Bronze Turkeys.....	8 to 10
Rouen Ducks.....	3 to 10
Black Cayuga Ducks.....	4 to 10
Aylesbury Ducks.....	4 to 10

M. FALLON,

Cor. Seventh & Oak sts.,

OAKLAND, CAL.

Light & Dark Brahmas, Buff, White and Partridge Cochins, Spangled, Golden and Silver Polish, Spangled, Golden and Silver Hamburgs, Pure White-faced Black Spanish, White and Brown Leghorns, Silver Grey Dorkings, Houdans, Silkies, Black-Red Games, Bronze Turkeys, Rouen and Aylesbury Ducks.

All from Premium Stock of Best Strains.

Fowls of above varieties for sale; also, Chicks in their season. Eggs packed with care and sent in rotation as orders are received. 1v9-16p-1f

Bronze Turkeys

12 Gobblers from 8 to 20 months old, 22 to 40 lbs each, for sale now. Hens 14 to 18 lbs.



Emden Geese

40 to 50 pounds per pair at maturity.

BLACK CAYUGA DUCKS,

Games, Brahmas, Leghorns, Houdans, Bantams, etc.

Eggs, fresh, pure, true to name; well-packed so as to hatch after arrival.

For Illustrated Circular and Price-List, address M. EYRE, Napa, Cal.

FERRETS.

RABBITS.

PIGEONS.

Please state where you saw this advertisement.



LOOK!

ALBERT E. BURBANK, Importer and Breeder of Fancy Fowls, Pigeons, Rabbits, etc. Also Eggs for hatching from the finest of imported stock. Eggs and Fowls at reduced prices. Send for Price List.

ALBERT E. BURBANK,
1v8-3m 43 & 47 Cal. Market S.F.

Commission Merchants.

H. K. CUMMINGS,
1858.

H. H. BALSTON,
1875.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission House,

ESTABLISHED 1858.

No. 424 Battery street, southeast corner of Washington, San Francisco.

Our business being exclusively Commission, we have interests that will conflict with those of the producer. 4v23-1v

MOODY & FARISH,

Wool Commission Merchants,

No. 210 Davis Street, S. F.

Eureka Glycerine and Carholie Sheep Dip; Sheep Shears; Wool Sacks and Twine constantly on hand at low prices.

Davis & Sutton, Commission Merchants,

For California Fruits: also for the sale of Butter, Eggs, Cheese, Hops, Green and Dried Fruits, etc., 75 Warren Street, New York. Refer to Anthony Halsey, Cashier, Trademark National Bank, N. Y.; Ellwanger & Barry, Rochester, N. Y.; O. W. Reed, Sacramento, Cal.; A. Lusk & Co., Pacific Fruit Market, San Francisco, Cal.

For Bleaching or Washing

In Cold or Warm Water.

FALKINBURGH & CO'S

GRANGER SOAP

HAS NO EQUAL.

Don't fail to give it a trial, and be assured of a saving of money, time and labor. It speaks for itself. Warranted to accomplish more and do greater execution than any other soap. It is pressed, wrapped and perfumed.

ONCE USED, ALWAYS USED.

Sold by the principal Grocers throughout the country. Manufactured by

FALKINBURGH & CO.,

Oregon St., below Front, bet. Washington and Jackson, San Francisco, Cal. 4v9-10p

ALEX. BUSWELL,

BOOK BINDER, PAPER RULER

AND BLANK BOOK MANUFACTURER.

521 Clay Street, S. F.

Blank Books Ruled, Printed and Bound to Order

A GOOD BARGAIN.

\$500 will buy a good, pre-emption claim of 160 acres in Monterey County, with a good Dwelling House that cost more than that amount, situated one-half a mile from the Los Angeles Stage Road, and about the same distance from the line of the Southern Pacific Railroad. Apply to

MRS. ROWLANDSON,
On the Premises, San Antonio, Cal.

No AGENTS are authorized to receive subscriptions for this paper at less than our advertised rates.

Banking.

Grangers' Bank of California.

(Incorporated April 27th, 1874.)

Offices, 415 California street, San Francisco.

CAPITAL authorized, \$5,000,000, in 50,000 shares of \$100 each. Subscribed, \$2,500,000. (Number of shareholders, 1,571). Paid up, \$481,200.

DIRECTORS—J. V. WEBSTER, President; CALVIN J. CRESSEY, Vice-President; C. S. ABBOTT, J. P. CHESMAN, G. W. COLBY, J. H. HILL, J. LEWELLYN, THOS. MCCONNELL, J. C. MERRYFIELD, A. F. WALCOTT, F. J. WOODWARD.

OFFICERS—Managing Director, CALVIN J. CRESSEY; Cashier, ALEXANDER WATSON; Secretary, FRANK A. CRESSEY.

The bank was opened on the 1st of August, 1874, for the purpose of affording additional banking facilities to the producers of the State, and for the transaction of ordinary banking business.

CURRENT ACCOUNTS are opened and conducted in the usual way, and interest allowed on the minimum monthly balance at the rate of three per cent. per annum.

CERTIFICATES OF DEPOSIT are issued in sums of \$50 and upwards, payable on 30 days' notice of withdrawal, bearing interest at rates varying with the current rate of discount.

TERM DEPOSITS are received in gold, silver or currency, and interest allowed as follows, namely: Three months, six per cent. per annum; six months, seven per cent. per annum; one year, eight per cent. per annum.

COLLECTIONS are made throughout the State on the most favorable terms.

DISCOUNTS—The bank advances on real estate in the different counties, on merchandise and grain in warehouse, etc., with a fair margin, charging a uniform rate of one per cent. per month. Discount days, Tuesday and Friday.

ALEXANDER WATSON, Cashier.

Anglo-Californian Bank.

LIMITED.

Successors to J. Seligman & Co.

London Office.....No. 3 Angel Court
San Francisco Office.....No. 412 California street.

Authorized Capital Stock, \$6,000,000,

Subscribed, \$3,000,000. Paid in, \$1,600,000.
Remainder subject to call.

DIRECTORS IN LONDON—Hon. Hugh McCulloch, Renben D. Sassoon, William F. Schofield, Isaac Seligman, Julius Sington.

MANAGERS:

F. F. LOW and IGNATZ STEINHART,
SAN FRANCISCO.

The Bank is now prepared to open accounts, receive deposits, make collections, buy and sell Exchange, and issue Letters of Credit available throughout the world, and to loan money on proper securities. 3v7f-cowbp

California Farmers Mutual
Fire Insurance Association.

Office, 6 Leidesdorff St., - San Francisco.

Directors:

A. W. WOLF, A. W. THOMPSON, I. C. STEELE,
I. G. GARDNER, J. C. MERRYFIELD, J. D. BLANCHARD,
G. P. KELLOGG, Treas.

Finance Committee:

I. G. GARDNER, J. C. MERRYFIELD, A. W. THOMPSON

Trustees:

J. M. HAMILTON, Lake Coll. C. STEELE, San Mateo Co
J. C. MERRYFIELD, Solano Co. A. B. NALLEY, Sonoma Co
G. W. COLBY, - Butte Co. O. S. ABBOTT, S'ta Barba Co
H. B. JOLLEY, - Merced Co. A. W. THOMPSON, Sonoma Co
A. WOLF, San Joaquin Co. E. W. STEELE, S.L. Obispo Co
J. D. BLANCHARD, Pres't. W. H. BAXTER, Sec'y.

This association is organized for the purpose of affording the farmers of this State the means of safely insuring against less fire, at actual cost of insurance, without being connected with city risks. a822-1f

Grangers' Business Association of California.

Principal place of business, City and County of San Francisco.

Notice is hereby given, that at a meeting of the Board of Directors of the Grangers' Business Association of California, held on the 7th day of April, 1875, an assessment of ten percent, two dollars and fifty cents per share, was levied upon the capital stock of the corporation, payable May 15th, 1875, to Wm. Vanderbilt, Secretary of the Grangers' Business Association, at his office, No. 6 Leidesdorff street, San Francisco, Cal.

A list of stock upon which this assessment shall remain unpaid on the day fixed, to wit: May 15th, 1875, will be delinquent, and advertised for sale at public auction, and unless payment is made before, will be sold on the 16th day of June, 1875, to pay the delinquent assessment, together with costs of advertising and expenses of sale.

WILLIAM VANDERBILT,
Secretary Grangers' Business Association
of California.

Office—No. 6 Leidesdorff street, San Francisco, Cal.

Hooper's South End Grain Warehouse

Japan and Townsend Streets.

SAN FRANCISCO, July, 1874.

I beg to inform you I have leased the above first-class Fire-Proof Brick Warehouse, now being erected by Geo. F. Hooper, Esq., and will be ready to receive storage on the 1st of August. This warehouse offers superior accommodations to parties desiring to store grain and flour, as it is situated on the Water Front, and on the line of the C. P. R. R. and S. P. R. R. It is well ventilated, rat proof, and combines all the modern advantages and improvements. Yours respectfully, JOHN JENNINGS.

Advances and insurance effected at the lowest rate. Storage taken at lowest current rates. 4v6-1f

EMPLOYMENT.

I want 1,000 agents to canvass for the COMPLETE HERBALIST, and THE GROWING WORLD. I will give such terms and furnish such advertising facilities that no man need make less than \$200 per month and all expenses—no matter whether he ever canvassed before or not. Address Dr. O. PHELPS BROWN, No. 21 Grand street, Jersey City, N. J., and full particulars will be sent by return mail.

CHEESE VAT FOR SALE.

One of the Celebrated Ralf's Cheese Vats,—five hundred gallons. Hoops, etc., new, and in perfect order. At a bargain. Enquire at the Carpet and Furniture Warehouse of

JOHN C. BELL.

Miscellaneous Notices.

LOOK TO YOUR INTEREST!



MANUFACTURED BY THE

PACIFIC RUBBER PAINT COMPANY.

For many years chemists and others have experimented in mixing India Rubber with Oil, Lead, etc., in order to produce a perfectly

WATER-PROOF PAINT,

And at last successful in their effort, have formed a chemical combination of Rubber with oil paints, which when applied becomes hard and elastic enough not to crack or peel, from the action of the atmosphere, with a gloss equal to work finished with varnish. The

Pacific Rubber Paint Company,

Of San Francisco, California, together with the RUBBER PAINT COMPANY, of Cleveland, Ohio, own all the patents covering perfect combinations like the above, which is known and sold by them as "Rubber Paint."

The great demand for the Rubber Paint induced this Company to purchase of the Cleveland, Ohio, and New York Rubber Paint Company, the patents for this coast, and are now manufacturing this paint in all colors, in large quantities, and have put the price below the best lead and oil paints. The Rubber Paint is prepared in Pure White, in all Cottage and other colors, comprising any number of different shades and put up ready for use, being a great advantage, as it can be spread by any one.

It Flows from the Brush Freely. Works Easily, and Settles Promptly. It is available for all kinds of Painting,

And may be used with equal advantage on iron, stone wood, brick, or plaster.

The Rubber Paint will cover more surface, cover it better, and last much longer than Lead and Oil. Two coats of the Rubber Paint is better than three coats of Ordinary Paint.

SAN JOSE, CAL., March 20, 1875.

PACIFIC RUBBER PAINT CO., San Francisco.—Gentlemen:—I have used and sold the Rubber Paint in this city during the last four years. We have about one hundred buildings painted with the Rubber Paint. Among the prominent ones are the State Normal School, Gates Institute, City Market; the residences of Josiah Belden, J. W. Hinds, President Gold Note Bank, J. R. Arguello, Santa Clara, etc. It has never failed to give satisfaction, with a test of from one to four years, so that its durability has been well tested. My sales last year were nearly five thousand gallons.

Truly Yours, AMASA EATON.

REFERENCE:

CAPT. EDWIN MOODY, San Francisco.
AMASA EATON, San Jose.
WILLEY & RINALDO, San Jose.
WALLACE EVERSON, Oakland.
F. K. SHATTUCK, Oakland.
ISAAC KNOX, ESQ.

Office and Factory.

No. 207 Sacramento Street,

SAN FRANCISCO, CAL.

JESSE HEALY, } Proprietors.
ANDREW DE FOREST, }
mar27-sa

Books Published by

A. ROMAN & CO.,

SAN FRANCISCO.

THE RESOURCES OF CALIFORNIA. By John S. Hittell. Sixth Edition, rewritten. "The most complete and comprehensive work of the kind."
One volume, 12mo., cloth.....\$1 75
One volume, 12mo., paper.....1 25
NEVADA AND CALIFORNIA PROCESSES OF GOLD AND SILVER EXTRACTION. By Guido Kustel. The best practical work on the subject.
8vo., cloth.....4 00
8vo., leather.....5 00
LEGAL TITLES TO MINING CLAIMS AND WATER RIGHTS IN CALIFORNIA. By Gregory Yale. 8vo., leather.....5 00
TREATISE ON SILK AND TEA CULTURE AND OTHER ASIATIC INDUSTRIES, Adapted to the soil and climate of California. By T. A. Kendo. 16mo., cloth.....50
SULPHURETS. What they are, how Concentrated, how Assayed, and how Worked, with a chapter on the Blow-pipe Assay of minerals. By Wm. Barstow, M.D. 12mo., cloth.....1
A liberal discount to Booksellers and Newsdealers from the above prices.

Any of the above works will be sent, postage prepaid, on the receipt of the price, by the publishers,
A. ROMAN & CO., No. 11 Montgomery St., S. F.
eow-bp

BRASS MOUNTED MICROSCOPES.

Just arrived, another lot of those Brass Mounted Microscopes. Just the thing to examine fungus in wheat, mites on trees, shrubs, etc. Sent free to any address on receipt of (\$1) one dollar greenbacks, postage stamps or silver.

Address, CHAS. P. KIMBALL,
613 Hayes Street, San Francisco, Cal.

THE PACIFIC COAST

12 Per Cent.

CONSOLS.

Interest Payable Monthly, in Gold and Silver.

A MINING, REAL ESTATE AND LAND COMPANY.

Incorporated February 12th, 1875.

Capital Stock, --- \$27,000,000,
IN CONSOL SHARES OF \$1 EACH,

Of which 13,500,000 shares constitute the Sinking and Investment Fund. Interest payable monthly at the rate of 12 per cent. per annum. Certificates of CONSOLS shares receivable at their par value in exchange for any Mining, Real Estate or Landed Property of the Company.

Directors:

T. PHELPS, W. S. REYNOLDS,
B. M. FETTER, L. K. GOODMAN,
J. H. BATES.

Certificates of CONSOLS only issued at the rate and proportion of 50 per cent. of the cash valuation of property to be represented in CONSOLS shares. Dividend paid from profits and sales of property, and only on shares of CONSOLS that have been issued for property valued and entered on the books of the Company.

Principal Office, 526 Kearny Street.

Principal Depository Agency, Greenbaum's Bank, 306 Montgomery street. After May 1st, office removed to 306 Montgomery street.

Depository Agencies for payment of interest on CONSOLS will be established in the principal cities in the United States and Canada, and in London, as when required.

Interest payable on the 5th of each month at any Depository Agency of the Company.

Certificates of interest-bearing CONSOLS, Class A, First Series, issued for Mining Property in Washoe, Storey and Lyon counties and on the Comstock Lode, in Nevada, will be ready for delivery to subscribers and purchasers on or before April 10th 1875.

Orders for not less than one hundred shares of CONSOLS, with the purchase money required (\$1 per share), may be sent through Wells, Fargo & Co.'s, at our expense. No certificate of stock issued for less than twenty shares. All orders must be addressed, "Office of the CONSOLS M. R. E. and L. Company, 526 Kearny street, San Francisco."

T. PHELPS, President.
W. S. REYNOLDS, Secretary.

apr3-sa-bp

AMMONIA!

For Washing and Cleaning Purposes.

For Sale by all Grocers.

This article is universally used in Europe, and, recently introduced for general family use in San Francisco and neighborhood, is already in great demand. It is now the intention of the manufacturers to introduce it all over the Pacific Coast, at prices which will bring it within the reach of every household.

It is unequalled for cleansing Woolen Fabrics, Cutlery, Carpets or Crockery; for Scrubbing Floors, Washing Paint, Removing Grease Spots, Shampooing or Bathing.

It renders water soft, and imparts a delightful sense of coolness after washing.

DIRECTIONS.—For Laundry, use two to four tablespoonfuls to a wash tub of water. For bathing, use one tablespoonful in the bath tub. For removing grease spots, apply with a brush, undiluted, and wash with water afterward. For stimulating the growth of plants, use a few drops in every pint of water used in watering.

PRICE.—Per Pint Bottle, 25 cents; per quart Quart Bottle, 40 cents; per Half Gallon, 75 cents.

Also, SULPHATE OF AMMONIA for chemical purposes, fertilizing, and the preparation of artificial manures. AMMONIACAL PREPARATION for the prevention and removal of boiler scale. CRUDE AMMONIA, for general manufacturing, and PURE LIQUOR and AQUA AMMONIA for chemical and pharmaceutical purposes.

Manufactured by the

SAN FRANCISCO GAS-LIGHT CO.

eowbp

ERNEST L. RANSOME,

Artificial Stone Manufacturer,

No. 10 Bush Street, San Francisco,

Office Hours 1 to 2 Daily.

GRINDSTONES at 3, 2½, and 1 cent per pound according to quality. In ordering state for what purpose the stone is needed.

"I have used one of your grindstones for some time, and it is the best I ever had." F. J. CUREY,
November 20, 1874. Prop. S. F. Boiler Works.

EMERY STONES, VASES AND FOUNTAINS, GRAVESTONES AND CEMETERY WORK. STONE DRESSINGS GENERALLY, NATURAL STONE banded and preserved, SILICATE OF SODA for Soap Makers and Laundrymen, &c.

PORTLAND CEMENT for Sale in Lots to Suit. Send for Price-List. eow-bp

CARD.

EXCELSIOR FORCE PUMP

greatly improved. COPPER LINED BRASS VALVES AND VALVE SEATS every way equal to a BRASS PUMP. PRICES reduced. Send for Circular. BRITTON, HOLBROOK & CO., Agents.

FARMERS' UNION.

SUCCESSOR TO A. PEISTER & CO.,

Cor. Second and Santa Clara Sts., San Jose.

CAPITAL, --- \$100,000.

WM. ERKSON, --- PRESIDENT

H. E. HILLS, --- MANAGER

Directors:—Wm. Erkson, L. F. Chipman, Horace Little

J. P. Dudley, David Campbell, James Singleton, Thomas

E. Snell, C. T. Settle, E. A. Bralcy.

Will do a General Mercantile Business, also receive Deposits, on which such interest will be allowed as may be agreed upon, and make Loans up to approved security.

Britton, Holbrook & Co., Importers of

Stoves and Metals, Tinners' Goods, Tools and Machines, 111 and 113 California, 17 and 19 Davis streets, San Francisco, and 178 J Street, Sacramento!!

LITTON SPRINGS

SELTZER WATER,

FROM LITTON PARK,

Near Healdsburg, - - SONOMA CO., CAL.

QUANTITATIVE ANALYSIS.

One wine gallon of water contains of solid constituents 228.69 grains, in the following proportions:

Carbonic Acid (combined).....	42.96
Chlorine.....	78.38
Sulphuric Acid.....	2.02
Silicic Acid.....	2.85
Oxide of Iron.....	4.41
Lime.....	5.24
Magnesia.....	62.19
Soda.....	27.38
Alumina.....	
Ammonia.....	
Potash.....	
Lithia.....	
Boric Acid.....	
Organic Matter.....	
Total grains.....	228.69

The amount of free carbonic acid in the water which escapes on standing and is not calculated in the above analysis, is equal to 383.75 grains per gallon.

Nature's Specific for the Cure of Indigestion, Costiveness, Piles, Irregularities of the Action of the Kidneys and Liver, Inflammation of the Eyes, Gout, Rheumatism, Etc.

Sold in Pint and Half-pint Bottles, and also by the Gallon.

Delivered in any part of the City, and forwarded to any part of the Country, by application to the Office.

Office and Depot, 439 Bush Street, San Francisco.

E. B. SMITH & CO., Agents.

may1-lam-bp

J. Y. WILSON. WM. FAULL. W. L. MERRY

WILSON, MERRY & CO.,

Provision Packers

And Dealers in

SALTED AND SMOKED MEATS,

Lard, Etc.

PROP'S BLACK POINT PACKING HOUSE.

We respectfully call the attention of Farmers and Stock Raisers to the fact that we are always prepared to purchase hogs, cattle and sheep at full market prices, for Cash, and shall be glad to answer promptly any inquiries addressed to us on the condition of the Market.

Office No. 223 Sacramento St., Near Front, San Francisco.

ARMES & DALLAM,

WHOLESALE DEALERS IN

WOOD AND WILLOW WARE

Baskets, Brushes and Twines,

Clothes Wringers,

Doty's Washing Machines,

AND

GENERAL HOUSE FURNISHING GOODS

And Manufacturers of

BROOMS, PAILS, TUBS, WASHBOARDS,

DASH,

CYLINDER,

THERMOMETER,

AND SQUARE BOX

CHURNS,

215 and 217 Sacramento St., San Francisco.

CALVERT'S



SHEEP WASH.

Sole Agency for California and Nevada

T. W. JACKSON'S,

416 Sacramento Street, San Francisco.

SUPPORT HOME INDUSTRY.

WHEATEN STARCH,

MANUFACTURED BY

J. JOHNSTON,

SAN JOSE, - - - CALIFORNIA.

This starch is made from the best of wheat, and is used by the laundries and hotels, who pronounce it Superior in Strength and Fine Satin Gloss to any imported starch—one pound being equal to one and a half pounds of Eastern starch.

PETERSEN'S

PATENT BEEHIVE.

For Sale at Geo. M. Wetherbee's Sawing, Planing and Turning Establishment, and Bee Hive Manufactory, 211 and 213 Mission street, San Francisco. Send for free illustrated circular, with "Treatise on Bees," to

P. C. PETERSEN,

City and Lot Office,

THE CELEBRATED

H. H. H.

HORSE MEDICINE

IS STILL AHEAD OF ALL OTHERS.

The Wholesale Druggists of San Francisco, give evidence of its appreciation throughout the State, by and rapidly increasing orders. We pledge it a cure for SPRAINS, WIND GALLS,

SWEENEY, SCRATCHES,

LAME AND STIFF JOINTS,

CALLONS, LUMPS,

AND ALL BLEMISHES,

SPRAINS OR BRUISES.

It is a household blessing and no family should be without a bottle in the house. For sale everywhere.

WILLIAMS & MOORE, Prop's.,

2578-6m Stockton, Cal.



Self-Fastening Bed-Spring.



Double-Spiral Bed-Spring.

We manufacture all sizes of BED and FURNITURE SPRINGS, from No. 7 to the smallest Pillow Spring; also, the Double Spiral Spring, which is the most durable Bed Spring in use. It is adapted to upholstered or skeleton beds. We have the sole right in this State to make the celebrated Obermann Self-Fastening Bed Spring. Any man can make his own spring bed with them. They are particularly adapted to Farmers' and Miners' use. Send for Circulars and Price List to

WARNER & SILSBY,

14v28 -eow-bn-3m 147 New Montgomery St., S.

J. M. NEVILLE.

G. H. BRYANT

NEVILLE & CO'S FACTORY

113 Clay and 114 Commercial Sts.,

SAN FRANCISCO.

BAGS of All Kinds,

TENTS, All Sizes and Descriptions.

HOSE for Hydraulic Use.

CANVAS, All Numbers.

TWINE for Sewing, Etc.



ROWLANDS' ODONTO

Whitens and preserves the teeth, prevents and arrests their decay, strengthens the gums, and gives a pleasing fragrance to the breath. The success of the last seventy-five years has proved its superiority over all other preparations for the teeth. Sold everywhere by all druggists, chemists, and patent medicine dealers. Ask for Rowlands' Odonto, of 20, Hatton Garden, London, and avoid all imitations.

EMPIRE PARLOR MATCHES

We have imported the requisite Machinery and Chemicals to add to our previous assortment of Matches the celebrated Parlor Match, deservedly popular among families and smokers, on account of brilliant burning qualities, and absence of smell or odor. Manufactured from the best sugar pine, a wood superior to any other, and found only upon the Pacific Coast. They are full count, and without objection of any kind. Packed in boxes of most desirable style. Brimstones and Safety Matches of superior quality manufactured, and are guaranteed to give entire satisfaction. Encourage Home Industry, and get superior goods at less cost than the imported article.

Ask your Grocer for the EMPIRE PARLOR MATCHES, and be sure you get no others. For Sale by all Grocers.

B. BENDEL & CO.,

MANUFACTURERS, 318 FRONT STREET.

FACTORY—Corner Eleventh and Harrison streets, S. F.
feb-eow

GREAT EASTERN AND WESTERN

Horse and Mule Market,

Cor. Fifth & Bryant Streets, San Francisco.

A choice stock of Carriage, Draft and Farm Horses on hand, and constantly being received from the East. All classes of Horses and Mules purchased and sold.

WASHBURN & RANDALL, Props

5,500 ACRES



Of the best portion of the old NOMELACKEE RESERVATION, in Tehama County, for sale very low; only five dollars per acre; one-third down, one-third in one year and one-third in two years, with interest at one per cent. per month. Will be sold all together or in two parcels. This is one of the finest tracts of grazing land in Northern California; is abundantly watered by numerous perpetual springs and has two miles of the Elder Creek, a clear mountain stream. Its grass never fails from drought, and is of the best quality for sheep and has no clover burr. 800 acres of level plow land; timber for posts, fuel, etc. Enquire of ALLEN WILCOX, Los Angeles, or F. B. WASHINGTON on the tract, twenty miles west of Tehama.

FARMERS write for your paper.

AGRICULTURAL NOTES.

ALAMEDA.

ABOVE THE AVERAGE.—From the Livermore *Enterprise*, May 1: We took a ride by rail as far as Oakland last Monday, and were somewhat surprised at seeing the fields of grain looking so well. On either hand after leaving Niles the grain was up pretty well and appeared as promising as could be wished for. Near Pleasanton we could discover no cause for long faces or despondency on the part of our farmers, and about Sunol more than average crops will be the harvest this year. Here about Livermore our crops in the immediate vicinity of town will be comparatively good, and on the foothills and western part of the valley, above the average.

PROSPERING.—A correspondent of the same paper writes from Pleasanton: The grain prospects are more favorable than a week ago. The grain in the immediate vicinity is looking quite promising; and if the hot weather stays away a week or two longer it will be out of danger.

AMADOR.

HAYING.—From the *Ledger*, May 1: Haying has commenced in Ione and Jackson valleys; and in both localities fair crops will be gathered. In the hills the hay crops look a little light, but on many ranches an average yield will be had.

BUTTE.

A LIGHT CROP OF WHEAT.—From the *Record* of May 1: Comparatively, only a light crop of wheat can be reasonably expected. The flattering promise of March has been dispelled by the drouth of April, and fifteen to twenty bushels per acre only will be realized, where as high as thirty to forty bushels were confidently expected with a favorable season. While the present spring has been an exceedingly unfavorable one for volunteer grain, we noticed one field on the Bidwell farm that looks about as well as most of the late sown grain. Yet, with all this, we do not anticipate a total failure of the crop.

BETTER THAN THEY THOUGHT.—The Oroville *Mercury* has, among other things on the same subject, this to say why the wheat crop is looking better than before reported: A few acres cut down by the frost gave rise to reports that the whole crop, in certain parts of the county, had been destroyed. But after a time the farmer, finding his crop still growing, although the rains have not even yet come, turned his attention to inquire the reason, and has learned that in every part of the county producing wheat we have had all along through the season a much heavier dew each night than has ever before been known. As a result, the crop has been growing right along, day after day. In the eastern and southern parts of the county some of the farmers, that two weeks ago were terribly down in the mouth, now tell us they will get more wheat than during any year for the past five. Others in the same neighborhood say they do not expect a full crop, but it will be far from a failure. Over on the new land beyond Biggs' and Gridley's, the crop is looking well. Twenty, twenty-five and thirty bushels to the acre, we hear talked of, though some place theirs as low as twelve bushels. In Dayton township whole fields look as thrifty and fine as the owners could ask for. It must be borne in mind that owing to the favorable season a much larger number of acres has been sown this year.

COLUSA.

LOOKING BETTER DAILY.—From the *Sun*, May 1: Although we have had no rain for more than two months, our crop prospects are looking better daily. When the long continued spell of north winds visited us it made the grain look very badly, but since we have had a week or two of south wind it is beginning to look much better. If the south wind continues many fields that have been given up will make fair crops.

CONTRA COSTA.

SHERMAN ISLAND.—The Antioch *Ledger* of 1st inst. says: The water still remains on a portion of the lower end of the island, but the grain above Mayberry slough looks very promising. The heavy frost damaged it considerably in spots, but altogether the yield will be larger in that portion of the island than for several years previous.

FINE PEACH PROSPECT.—The same paper says that the caterpillars and frosts have alike given that locality the go by, and reports that the prospect, for peaches especially, is very flattering.

FAVORABLE FOR GRAIN.—Also the following: The weather during the past week has been quite favorable for the grain, cool, with a westerly wind. The crop will be light, yet enough will be harvested to tempt the farmers to do better another season by summer fallowing. They have now learned that while awaiting the canal they must pursue this method if they would succeed.

KERN.

THE ALFALFA CROP.—*Southern Californian*, May 1: Large fields of alfalfa are being cut for the first crop. The growth is about three feet. A good deal of volunteer grain is mixed with some of the parcels, which improves the quality of hay to some extent.

MERCED.

FARMERS IN BETTER SPIRITS.—From the *Valley Argus*, May 1: Farmers are in better spirits now than they have been for several

weeks, the cool weather which has prevailed of late having very materially improved the condition of the crops. Some report the summer fallow as being excellent, and the wintered sowed wheat as bidding fair to produce at least a half crop. Volunteer is poor and much of it is being cut for hay, many deeming that it will pay better than to harvest it.

NAPA.

RAIN NEEDED.—From the *Reporter*, May 1st: In many places grain in this valley needs rain badly. Where the grain was sown early it will bring a crop without it, but to insure even half a crop on late sown grain rain is needed. The heavy dews that have lately blessed the parched earth are doing some good, but still we want rain. The grape crop promises to be a large one. Of plums and cherries, we may still reckon on a small yield.

GENERAL APPEARANCE FAVORABLE.—From the *Register*, May 1st: The general appearance of the grain fields in this county is favorable notwithstanding the withholding of the "latter rain." Our cool nights and heavy fogs go far towards supplying the lack of the usual supply of moisture from the clouds at this season. Some fields, especially where late sown, show signs of a need of water, but many of them are as vigorous and beautiful as they ever were in the most favorable years. Nothing like a failure of crops is anticipated. It is probable, however, that the average yield will be somewhat below the average since 1864.

PLACER.

AN UNFAVORABLE REPORT.—From the *Argus*, May 1: We regret to state that advices from the surrounding country do not speak favorably of the coming crop of wheat. A lack of rain and the north winds have entirely destroyed fields that a few weeks ago looked promising. These facts are much to be regretted, and we can only hope that other localities from which we have not heard will be more fortunate.

SANTA CRUZ.

GOOD HAY AND BARLEY.—From the *Santa Cruz Sentinel*, May 1: Farmers are now preparing to cut their hay, and a fair average crop may be reported in Santa Cruz and vicinity. Wheat is somewhat shorter than usual, especially the late sown. The crops near Soquel and vicinity will be very good. At Aptos they are still better. The barley crop—one hundred acre field—on John Ord's farm, is better than we have seen in a ten year's residence in Santa Cruz. On the lower Soquel road, some fields will have a light crop of wheat, but the average will no doubt, with the usual coast fogs, yield an average crop this year.

SONOMA.

GRAIN LOOKING WELL.—From the *Sonoma Democrat*, May 1: Since the frost of April 5th, we have had every morning, heavy fogs. The effect upon vegetation within the fog belt has been remarkable. Around Santa Rosa and west of it to the ocean, the crop has not looked better for ten years past. We noticed the grain along the redwood road through to Green valley and never saw it better. On the Obreen place, which has been considered as light land, as fine a grain crop as we have ever seen now stands.

FAVORABLE REPORTS.—The *Petaluma Argus* of the same date has the following: P. Lawler has 150 acres of grain on his ranch four miles from Petaluma, in the direction of Sonoma mountains. It promises more than an average yield. L. W. Walker, of Chileno valley, predicts good crops in the valley this year. Jos. Purrington, whose farm embraces over 500 acres in Green valley, has nearly 100 acres in grain, that is looking very fine. His fruit, however, will be a comparative failure.

STANISLAUS.

A FAIR YIELD ANYWAY.—From *Union Democrat*, May 1: As we rode to Modesto this week the wheat and barley along the road looked far better than the complaints would lead one to infer. In many places fine crops will be obtained and everywhere the growth looked fresh and green. The frost in a few places nipped the wheat heads, which will lessen the yield somewhat, but the drouth does not appear to have damaged any yet. Without rain there will be a fair yield, with it, an abundant one.

SUTTER.

AN AVERAGE YIELD.—From the *Yuba City Banner*, May 1: An eye witness who has had occasion to travel through the county of late, and who is a close observer, made it his special object to note the conditions of the crops in the various sections he passed through. He informs us the crops are by no means a failure, and an average yield will be the result of the season's labor. With cereals, as with fruits, many conjecture a total failure if the prospect in the beginning be unpromising. A total failure is not known in Sutter county.

WILL MATURE A GOOD CROP.—The same paper says: Thurston Bros. have about 800 acres of excellent grain, and 175 acres of broom corn on their farm four miles below Meridian. They have had sufficient moisture to mature a good crop.

TULARE.

ADVANTAGES OF IRRIGATION.—From the *Visalia Delta* 28th ult.: The spring has been as dry as spring can well be, and half the grain sowed in this county will be a failure. We have such a diversity of industries, however, that the season on the whole will be counted among the prosperous ones. Our exports for the present season will exceed those of any previous year, and the great capacity of our new ditches will enable us to boast of a greater acre-

age of green vegetation on the first day of September than any other county in the State.

YOLO.

GOOD WHEAT.—From the *Yolo Mail*, May 2: A. J. Steiner, one of our most enterprising farmers, living about three miles west of Woodland, has left in our office a "bunch" of Chili wheat from a field of 160 acres. The stalk is about five feet high, strong and green, and the heads are in good condition. He says this is a fair sample of the whole field, and will yield at least 30 bushels to the acre.

PATENTS & INVENTIONS.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

[FROM OFFICIAL REPORTS FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.]

By Special Dispatch, Dated Washington, D. C., May 4, 1875.

FOR WEEK ENDING APRIL 20, 1875.

TARGET.—Charles Buckner, S. F., Cal.

BOBBIN WINDER FOR SEWING MACHINES.—Henry H. Rhodes and Charles C. Redmond, San Jose, Cal.

BIT STOCK.—Elbert R. Charles, Petaluma, Cal.

CULTIVATOR.—Amos B. Colver, Albany, Oregon.

GRAIN SEPARATOR.—Elijah Knapp, S. F., Cal.

FASTENING FOR POCKETS.—David Neustadter, S. F., Cal.

HAY AND GRAIN ELEVATOR.—Thomas Powell, Stockton, Cal.

CARRIAGE.—Frank F. Doland and Francis Scherb, Sacramento, Cal.

REEL FOR HARVESTERS.—Frederick Wyman, San Buenaventura, Cal.

TOBACCO PACKAGE.—James D. Culp, Gilroy, Cal.

RAILROAD SIGNAL.—James Gordon, S. F., Cal.

ICE MACHINE.—Samuel Martin, S. F., Cal.

TAP AND FAUCET FOR BARRELS.—Amos C. Springer, S. F., Cal.

TRADE-MARK.

FOR MEDICINE.—John H. Rattley, S. F., Cal.

*The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue.

NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & CO., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with perfect security and in the shortest possible time.

The *Lassen Advocate* makes this assertion: If no late frosts occur there will be a mammoth crop of fruit this year all over the country. Prospects were never better in this line.

The *Lassen Advocate* expects to see a woollen manufactory started in that county before the close of the present year.

The surveys of the route for the Sonoma and Marin railroad have been completed.

CHICO is to have a street railroad.

The Russell End-Shake Thresher.

Read what Farmers and Threshers Think of it.

SAVES THE GRAIN BETTER THAN ANY OTHER EVER USED.

NAPA VALLEY, Cal., August 3, 1874.

Messrs. Treadwell & Co., San Francisco—Gents: In regard to the End-Shake Shoe—I will say I like it first-rate; the machine throughout gives me perfect satisfaction. (I can thresh and clean well 2,000 bushels of wheat with ease in good grain.) The Shoe saves the grain better than any other I ever used.

R. L. DEERING.

WOODWARD'S GARDENS embraces an Aquarium, Museum, Art Gallery, Conservatories, Tropical Houses, Menagerie, Seal Ponds and Skating Rink.

SIXTY THOUSAND copies sold in two years is the record of Getze's School for the Parlor Organ—an evidence of its merit. Price, \$2.50.

PACIFIC POTTERY, SACRAMENTO.

MANUFACTURERS OF

Sewer Pipe, Drain Tile,

PLAIN FLOWER POTS,

FIRE BRICK.

JOHN B. OWENS, Agent,

No. 30 California Street, S. F.

PACIFIC RURAL PRESS.

A first-class 16-page Agricultural Home Journal, filled with fresh, valuable and interesting reading. Every farmer and ruralist should take it. It is immensely popular. Subscription, \$4 a year.

DEWEY & CO., Publishers, No. 224 Sansome street, SAN FRANCISCO.

E. W. WOOLSEY,

BREEDER OF



Thoroughbred Spanish Merino Sheep,

From Vermont Premium Stock, At Berkeley, Alameda County. Horse cars every half hour from Broadway Station, Oakland. CITY OFFICE, 418 CALIFORNIA STREET, S. F.

SANBORN & BYRNES.



Mechanics' Mills, Mission Street, Bet. First and Fremont, San Francisco. Orders from the country promptly attended to. All kinds of Stair Material furnished to order. Wood and Ivory Turners. Billiard Balls and Ten Pins, Fancy Newels and Balusters. 25x8-8m-bp

HEALD'S Business College.

No. 24 Post Street, San Francisco.

The largest and best Business College in America. Its teachers are competent and experienced. Its pupils are from the best class of young men in the State. It is under the very best discipline. Its scholarships are good in the Twenty-Six Bryant & Stratton Colleges. It employs four of the best penmen in the State. It has the largest rooms, the largest attendance, and the most complete system of business training of any commercial school in the country.

For information, call at the office, 24 Post street, or address, for circulars,

E. P. HEALD, President Business College, San Francisco

SEEDS. PLANTS.

OF EVERY VARIETY.

Fresh and reliable, such as experience and care only can select. GRASS AND CLOVER SEEDS, KENTUCKY BLUE GRASS, HUNGARIAN, ORCHARD, ITALIAN RYE, RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL, CHOICE CALIFORNIA ALFALFA, WHITE CLOVER, RED CLOVER, Etc.

Also, RAMIE, JUTE AND TOBACCO SEEDS; together with a fine and complete collection of TREE SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGANTEA, PINUS INSIGNIS, Etc.

For Sale, wholesale or retail, by

B. F. WELLINGTON,

(Successor to E. E. Moore). 425 Washington St., San Francisco. 27x7-1y

LANE & BODLEY, John & Water Sts., Cincinnati. Manufacturers of the Best

FARM ENGINE.

Mounted and ready for use. Send for our illustrated catalogue.



LOCKE & MONTAGUE,

IMPORTERS OF

Stoves, Ranges,

Tin Plate, Sheet Iron, Iron Pipe,

House Furnishing Hardware,

Plain Japanned,

Planished and Stamped

TIN WARE,

112 and 114 Battery Street,

SAN FRANCISCO.

Nurserymen.

Established 1853.

Stocks for Nurserymen.

Plum Seedlings, Miroholan, the best French stock, does not sucker.....\$50 per 1000
 Apple Seedlings.....10 per 1000
 Pear Seedlings.....10 per 1000
 Cherry Seedlings, Mazzard.....12 per 1000
 Cherry Seedlings, Mahaleb.....20 per 1000
 Walnuts, English, 4 to 6 feet.....15 per 100
 Cork Elm, best Elm, 4 to 6 feet.....15 per 100
 Blue Gum or Eucalyptus, in variety.....5 to 10 per 100
 Magnolia Grandiflora.....20 per 1000
 Magnolia Acuminata.....20 per 1000
 Magnolia Tripetala.....20 per 1000
 Golden Arborvitae.....20 per 1000
 Crataegus Arbutifolia.....20 per 1000
 Swedish Juniper.....20 per 1000
 Irish Juniper.....20 per 1000
 Heath-leaved Arborvitae.....20 per 1000
 Heath, Mediterranean.....20 per 1000
 Laurustinus, 6 to 12 in.....250 per doz.
 Making the growth of Oranges and Lemons a specialty, I have imported from all sources the best known varieties, and now offer five thousand Grafted Trees properly worked and twice transplanted at \$18 per dozen. Grafted oranges by the 100 or 1,000 at prices on application. The amateur in want of large PALMS, large AURICARIAS, large CAMELIAS and large TREE FERNS, a good stock on hand; also the usual large stock of fruit and ornamental trees.

BERNARD S. FOX.

San Jose, Cal.

THOS. MEHERIN, Agent, 516 Battery Street, San Francisco.

1852.

1875

ESTABLISHED IN 1852.

THE STOCKTON NURSERY

I have for sale for the ensuing season a Large and Well Grown Stock of All Varieties of

FRUIT TREES,

SHADE,

ORNAMENTAL

and

EVERGREEN TREES,

GREENHOUSE PLANTS, AUSTRALIAN GUMS, SHRUBS, ROSES, BULBS, PALMS.

Send for Catalogue.

W. B. WEST, Stockton, Cal.

FOR FRUIT, ORNAMENT
 FOR TREES FOR
 PLEASURE, PROFIT.
 WHOLESALE AND RETAIL.

Pears, Apples, Cherries, Peaches
Plums, Quinces.

Small Fruits.—Grapes, Currants, Raspberries, Blackberries, Strawberries, Gooseberries.
 Ornamental.—Weeping and Standard Trees.
 Evergreens.—Common and New and Rare.
 Shrubs.—Variegated-leaved and Flowering.
 Roses.—Moss, Tea, Climbing and Perpetual.
 Clematis Jackmanni is perpetual, hardy, lives easy, grows fast, and flowers the first year.
 12 sorts Perpetual White Clematis and fifty new varieties of many shades of color. Strong plants safely sent by mail.
 Good Plants sent by mail, post-paid, as follows:
 6 Choice Roses for...\$1 00 | 13 Choice Roses for...\$2 00
 6 Variegated-leaved and Flowering Shrubs for...\$1 00
 13 Variegated-leaved and Flowering Shrubs for...\$2 00
 500 Acres T. C. MAXWELL & BROS.,
 of Nursery Catalogues Free. Geneva, N. Y.

KING'S NURSERY,

Twenty-fifth St., bet. Telegraph & Broadway
OAKLAND, CAL.

Fruit, Shade and Evergreen Trees, Shrubs, Roses, Etc. Persons laying out new grounds would do well to call and examine our stock before purchasing elsewhere. A large stock of EUCALYPTUS, including BLUE GUM Pines and OXYPHES from six inches to twelve feet high. Acacias in Variety; Young Stock for Nurserymen; Pines and Cypress; Three Thousand Magnolia Grandiflora from six inches to five feet high; Camelia Japonica; Gardenia Cape Jessamine; Araucarias in Variety, at Lowest Rates. Orders attended to.
 Address, M. KING, Nurseryman,
 399-3m Oakland, Cal.

SUPERIOR FRUIT TREES

TRUE TO NAME.

A fine collection of Evergreen and Deciduous Trees. Australian Gum Trees in variety, by the hundred or thousand. Monterey Cypress in quantities and sizes to suit all. Orange and Lemon Trees at reduced prices. A general variety of Nursery stock.
 Also, Rhubarb and Asparagus root.

T. CORLEY,

18729-11 315 Washington Street, S. F.

PEACHES, APRICOTS AND PLUMS

are specialties at the Vacaville Nursery, Solano Co., Cal. Alexander's Early, Flambert and Pease in bud, 90 cents each. Beatrice, Louise, Rivers' Early, Lord Palmerston Lady Palmerston, Prince of Wales, Princess of Wales, Picquet's Late, Lady Parham, Italian Dwarf, Golden Dwarf, Bloodleaved and many other varieties of new Peaches in bud, at 25 cents each; Trees of Alexander's Early, \$1 each. Beatrice, Plowden, Freemason and a general assortment of the leading varieties, 25 cents each; Apricots, Plums, Apples, Pears, Cherries, Almonds, Figs, Olives, Pomegranates and including most of the leading varieties of fruit for sale at low prices. D. E. Hough, Vacaville, Solano Co., Cal.

Thos. A. Garey's
Semi-Tropical Nurseries.

LOS ANGELOS, CAL.

Forty varieties of the Citrus family of semi-tropical trees, including many rare and beautiful, as well as useful and profitable kinds.

Grafted and Budded Orange Trees a specialty. Trees packed to arrive in good order. Priced Catalogue sent free. Address me P. O. Box, 528, Los Angeles city, Cal.

23v8-6m

THOS. A. GAREY.

PEPPER'S NURSERIES.

(Established in 1858.) PETALUMA, CAL.

Green Houses and Tree Depot corner Washington and Liberty streets.

4 Green Houses. 3,000 feet of Glass. Fruit Trees a Specialty.

We offer for sale at lowest market rates a general assortment of Fruit, Shade Trees, small Fruits, Vines etc. Evergreen trees and Shrubs in great variety. Green Houses, Conservatory and Bedding Plants, Roses, etc. We are now ready, Nov. 1st, to fill orders for trees and plants. Catalogue and price list furnished on application.

Address,

W. H. & G. B. PEPPER,

19v8-11

Petaluma, Sonoma Co., Cal.

Agricultural Articles.

KIMBALL CAR, CARRIAGE

—AND—

AGRICULTURAL IMPLEMENT

MANUFACTURING CO.,

Cor. Bryant and Fourth Sts., San Francisco

The CALIFORNIA TUBULAR IRON AND WOOD FRAME HARROW—two, four and six-horse Iron Harrows, \$60, \$70 and \$75. Wood Frame Harrow, \$10 less on each size than the Iron.

The Harrow has an easy seat for the Driver. The middle section rests on three wheels with wings hinged on each side.

By use of Levers the Driver in his seat can raise or lower the Harrow, regulating at will the depth of the teeth in the soil, and in the same manner fold or raise the wings from the ground so as to drive from the road to the field, saving the use of a wagon.

Our CALIFORNIA SCRAPER is also made for the ease of the Driver, enabling one person to ride, manage the team and do the work.

Is adapted for levelling and preparing the surface of the soil for irrigation. And for making roads, removing dirt from ditches, cleaning barn yards, sheep corals, etc.

The IMPROVED EAGLE HAY PRESS—Best in use on this Coast. Cheap, Economical, Powerful, and easily repaired.

Will press bales weighing from 250 to 325 pounds, using less rope than any other press.

Three men with a good team of horses will bale from 10 to 15 tons per day.
 Adapted for baling wool, hides, cotton, rags or moss. Price, \$250. Weight of press, 2,600 pounds. Please send for circulars.

MATTESON & WILLIAMSON'S



Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knobs without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

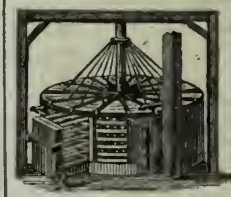
14v2-3m

MATTESON & WILLIAMSON,

Stockton, Cal.

Plummer's California Fruit Drier.

PATENTED DECEMBER 29TH, 1874.



This is the Cheapest and Most Economical, Largest Capacity, and Most Speedy DRIER, and gives the fruit a better flavor than any other machine ever invented. 1st—It only requires a shed to work under; 2d—has boiler, engine, and steam-pump for irrigating or other purposes, in connection with the Drier or separately; 3d—the cost is one-half less than any other of the same capacity, and there is no danger of burning the fruit. A sample machine is in full operation at our factory, No. 31 BEALE ST. Address,

SPAULDING & BRO.,

Send for Circulars. San Francisco, Cal.

PUMPS SLUTHOUR PUMPS

Are sold 50 per cent. under any other in the market, considering the amount of water obtained for the power applied. They have now been fully tested for IRRIGATION, and entire satisfaction is guaranteed. Call and see them, or send for Circulars.

J. M. KEELER & CO., Agents,
306 California Street, San Francisco.

Allen's Planet Jr. Silver Medal

Have Drills and Water Rovers. These new styles. They "are like a charm," and are better, earlier, and six times faster than the hand hoe. S. L. ALLEN & CO., Mfrs.
 119 & 121 St. Paul, Pa. Circulars free.
 A LIVE AGENT WANTED in every town.

C. CREGO.

S. C. BOWLEY.

CREGO & BOWLEY,

Importers and Manufacturers

—OF—

CARRIAGES and WAGONS,

No. 9 Merchant's Exchange.

CALIFORNIA STREET.....SAN FRANCISCO

Keep constantly on hand top and open Buggies, top and open Rockaways, Jump-seat Buggies, Track and Road Buggies, Skeleton Wagons, Basket Phaetons of the very latest styles and finest workmanship.

We would call particular attention to our fine stock of light Road and Trotting Wagons, made to order by the following celebrated makers:

Charles S. Coffey, Camden, New Jersey;
 Hefield & Jackson, Rahway, New Jersey;
 Gregg & Bow, Wilmington, Delaware;

And the first-class makers, which we are prepared to sell on the most reasonable terms.

Also, a large assortment of single and double Harness, of the most celebrated makers:
 O. Graham, New York; J. R. Hill, Concord; Pittkin & Thomas, Philadelphia.

Also, a full assortment of Dress and Light Blankets, Fur and Lap Robes, Whips, Harness, Surchings, etc., at wholesale and retail.

CREGO & BOWLEY,

No. 9 Merchants' Exchange, California street,
24v5-3m San Francisco.

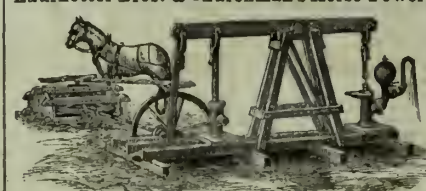
VINE AND FRUIT GROWERS,

TO RAISE LARGE CROPS

YOU MUST IRRIGATE.

To irrigate successfully, you must have the power that does not give out when the wind fails.

Laufkotter Bros. & Churchman's Horse-Power,



[PATENTED FEBRUARY 13TH, 1872]
 Never fails to supply more water than four or five Windmills, even supposing you had all the wind you want. It is also suitable for running light machinery, such as Barley Cracks, Corn Shellers, Fanning Mills, Grain Separators, or for Sawing Wood. They are never failing, cannot get out of order, easily worked, substantial, and always give satisfaction wherever they have been used. One horse can easily work two 6-inch pumps, with a continuous flow of water. Force Pumps from 3,000 to 10,000 gallons per hour. WINDMILLS of all kinds manufactured to order. Wells Bored, Windmills and Horse-Powers set in any part of the State, and repairing of all kinds done.
 Manufactured and for sale by

LAUFKOTTER BROS.,

v7-2m-3m Cor. J and 10th Sts., Sacramento.

THE BOOKWALTER ENGINE.

Effective, Simple, Durable and Cheap.

The want of a small Portable Engine and Boiler, so constructed as to be furnished at a price within the reach of every one, has long been felt. This has been accomplished in the Bookwalter Engine, an engine which for Effectiveness, Simplicity, Durability and Cheapness, can not be surpassed.

For processes requiring light power, such as wood-sawing, running cotton gins, elevators, printing presses or cheese factories, pumping water, a large variety of farm work, and in fact all light manufacturing purposes, this engine is expressly adapted, both in construction and cost.

Prices, delivered at the Railroad Depot, San Francisco:

3-Horse Power.....\$290 00
 4½-Horse Power.....350 00

FOR SALE BY

AUZERAIS & POMEROY,
SAN JOSE, CAL.

Farmers and Threshers

WISHING TO HAVE

Straw Burning Engines

For next season must engage them soon, as most of these new building are already sold. Threshing Engines for Repair should be sent in now. A number of Second-hand Engines—taken in exchange for "Straw Burners"—for sale cheap. For particulars and prices, address:

23v8-3m

H. W. RICE,
Haywood, Alameda County.

ENRIGHT'S

Portable Strawburning Engines

Burns either Straw, Wood or Coal, Manufactured and sold by
 JOSEPH ENRIGHT,
 mr-13-3m Jose.

FARM HANDS.

The Grangers' Scandinavian American

Employment Office

Has been removed from 6 Liedesdorf to 608 Clay street, and Consolidated with the Pacific Coast Employment Office. This office is in constant communication with Grange Headquarters, and is the only one in the city conducted by members of the Order. Our facilities for furnishing MALE and FEMALE help of all kinds are unexcelled by any office in the city. Great care taken to select reliable help. Chinese Orders for Servants, in door and out, promptly filled.

In ordering help, be particular in describing work, wages, fare, etc., Real Estate and General Business Agency.

PHILIPS & FLIGGLE.

THE Employment Office of Talbot & Co. has no connection whatever with the Granges.

I. G. GARDNER.

FARMERS, ATTENTION!

CASH.

SHORT CROPS.

Whitcomb's Wheeled Wire Rakes.....\$25 00

Coates' Lock Lever Wire Rakes.....\$30 00

Excelsior Junior Mowers.....\$80 00

Excelsior Medium Mowers.....\$90 00

THE ABOVE PRICES ARE

Cash With the Order.

As Crops are Short we desire to give Farmers the benefit of the above Low Prices.

Address,

BAKER & HAMILTON,

SAN FRANCISCO.



This is a Sure Cure for Scab Worm, Scab and Foot Rot in Sheep. It also kills Ticks, Lice, and all Parasites that infest Sheep.

Prevents scratching and greatly improves the quality of the wool. One gallon of the Dip properly diluted with water will be sufficient to dip one hundred sheep, so that the cost of dipping is a mere trifle, and sheep owners will find that they are amply repaid by the improved health of their flocks.

This Dip is guaranteed to cure when used according to directions, and to be vastly superior to Corrosive Sublimates, Sulphur, Tobacco, and other remedies which have heretofore been used by farmers.

Circulars sent, post paid, upon application, giving full directions for its use, also certificates of prominent sheep growers who have used large quantities of the Dip, and pronounce it the most effective and reliable known Cure and Preventive of Scab and other kindred diseases in Sheep.

mr13-bp

THE ALDEN

FRUIT PRESERVING COMPANY,
OF CALIFORNIA.

OFFICE, 426 MONTGOMERY ST., S. F.

Our improved apparatus will do one-third more work than that erected last season, while our prices have been materially reduced. A portion of the purchase money may be paid in the products of the Alden factories. We guarantee against infringements. The Alden is the oldest, the best and the cheapest process known for preserving fruits, vegetables, meats, etc.

It would be unwise to purchase the new and untried dryers before they have demonstrated their superiority by at least one year's regular work. Send for our circulars.

Averill Chemical Paint,

MANUFACTURED BY THE

Cal. Chemical Paint Co.

PURE WHITE, AND ANY SHADE OR COLOR.

This Paint is prepared in liquid form, READY FOR APPLICATION—requiring no thinner or dryer, and will not spoil by standing any length of time.

It is Cheaper, more durable, more Elastic, and produces a more Beautiful Finish than the best of any other Paint.

It will not Fade, Chalk, Crack, or Peel off, and will last twice as long as any other Paint.

In ordering White, state whether for Outside or Inside use, as we manufacture an Inside White (Flat) for inside use, which will not turn yellow, and produces a finish superior to any other White known.

Put up in ¼, ½, 1, 2 and 5 gallon packages, and in Barrels. Sold by the Gallon.

For further information send for Sample Card and Price List, or apply to the office.

OFFICE AND DEPOT: 117 Pine Street, near Front. Cor. 4th & Townsend Sts.
 3v9-eow-bp-1y SAN FRANCISCO, CAL.

FOR SALE

In the Riverside, New England and Santa Ana Colonies, in the valley of the Santa Ana river, San Bernardino county, California, twenty thousand (20,000) acres of clean, rich, level, valley land, with an abundance of water for irrigation. There is no better land in the State for the orange and all other semi-tropical fruits, and no finer climate in the world. Inquire of W. T. BAYWARD, 420 Montgomery street, San Francisco; S. C. EVANS, Fort Wayne, Indiana; C. I. HUTCHINSON, 314 California street, San Francisco; L. UPSON, General Agent, Riverside, San Bernardino county, Cal.

The Hoadley Regulating Cut-off
THRESHING ENGINES.



The above cut represents the Hoadley New Style Threshing Engine, 15-horse power, with Patent Cut-off Governor. We also have the same style and size, with HOADLEY'S NEW PATENT STRAW-BURNING FIRE BOX. This new Engine has been thoroughly tested, and we are prepared to warrant it to give satisfaction, OUR GUARANTEE GOES WITH EVERY ENGINE INTO THE FIELD. This new engine is fitted out complete, with High Seat, Foot-Board for Driver, California Roller Brake (not shown in engraving), Iron Hub, Patent Wheels, Forged Bent Axle, and all Mountings in Perfect Order.

THE

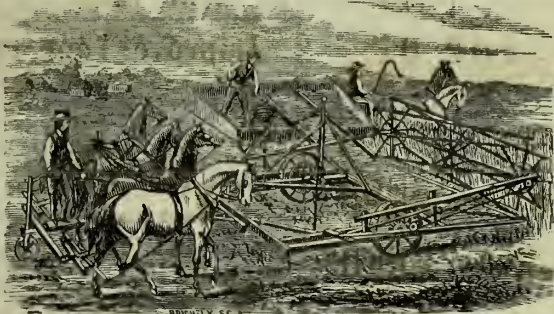
Hoadley Straw-Burning Threshing Engine

Is no heavier than wood-burning engines of same power, and is unquestionably the Best Threshing Engine in the world. It is Lighter, Better Made, Safer, and will do More Work than any other engine of same size and price ever built. THIS FACT IS INDISPUTABLE.

Farmers and Threshers desiring to buy Straw-Burners for coming season, should secure their Engines Early, as the number is not large, and many are already engaged. All Engines will be tested in presence of customers, when required. Send for Circular and Prices. Address,

TREADWELL & CO., Sole Agents, San Francisco.

OUR IMPROVED HAINES' HEADER,



With Compound Leverage,

Doing away with all Ballast or Weights,

Either on the Lever or Frame; will be appreciated by Header Men. Also, a new device for driving the Knife, making the Header run one horse lighter than any header ever imported. The driving of the Reel is an improvement; in turning, the Reel runs just as fast as when driving straight ahead. The improvements will be found to meet the demands of California trade.

Our Excelsior Mowers are Improved for 1875.

Three Sizes—"Junior," "Medium" and "Senior."

J. I. CASE & CO.'S

SEPARATORS AND STEAM ENGINES

Are the Largest Works of the Kind in the World.

The Threshers and Engines are Made Expressly for this Trade.

Pitts' Down and Mounted Powers, "Foust's" Hay Loader, and Keller & Co's Sulky Revolving Hay Rake,

An age in advance of any other Rake. See these goods before buying; they can be found with us only. Our Stock of Implements is Complete.

THRESHERS, ENGINES, POWERS, HEADERS, REAPERS, MOWERS, RAKES, HAY PRESSES, CORN PLANTERS, CORN CULTIVATORS, CORN SHELLERS, CIDER AND WINE MILLS, HAY CUTTERS, DERRICK FORKS, BELTING, PUSH CARTS, PLOWS, HARROWS, CULTIVATORS, GORHAM SEEDERS AND CULTIVATORS COMBINED, FISH BROS., PACIFIC WAGONS, REGULATOR WINDMILLS AND PUMPS, ETC.

KELLER & CO., 43, 45 & 47 J Street, Sacramento, Cal. SEND FOR CIRCULAR.

RELIABLE.

UNEQUALED.

THE

ONE PRICE DRY-GOODS HOUSE,

42, 44, and 46, Third Street, San Francisco.

THE GOODS ARE ALL MARKED, IN PLAIN FIGURES,

PEIXOTTO & SILVERMAN.

DURYEA'S SATIN GLOSS STARCH
AND
DURYEA'S IMPROVED CORN STARCH

Are the Best in the World.

USE IT ONCE AND YOU WILL USE NO OTHER.

For Sale by All Grocers.



The Messrs. Duryea have succeeded in refining Starch to entire purity and developing its entire strength and clearness, an improvement that will be readily perceived in the great strength of the Starch, the superior luster that it gives, and in its reliable uniformity. Much of the so-called starch contains from one-fourth to one-third foreign matter, readily perceived by sourness, mustiness, or a golden yellow tinge, peculiar to inferior starches, a color not desirable for one's linen, but inseparable from the use of common starch. They pledge themselves to the public to give uniformly superior article, from one-fourth to one-third stronger than any other starch in the world, and at the common market rates.

EGERTON, ALLEN & CO., Sole Agents for the Pacific Coast
San Francisco, California.

BOWEN'S PREMIUM YEAST POWDER.

Bowen's Premium Yeast Powder.

Bowen's Premium Yeast Powder.

Bowen's Premium Yeast Powder.

Bowen's Premium Yeast Powder.

Best in the World! Every Can Guaranteed!!

For Sale in Every Village, Town and City on the Pacific Coast.

Ask Your Grocer for it.

Manuf'd by BOWEN BROS., 432 Pine St., S. F., and 11th & 12th Sts., Oakland

Union Box Factory,

GEO. W. SWAN & CO.,

115 and 116 Spear St., bet. Mission & Howard
SAN FRANCISCO.

Apple, Pear, Plum, Peach, Cherry, Grape, Orange, Lime and Wine Cases. Tomato, Potato, Fig and Raisin Boxes. Strawberry, Raspberry and Blackberry Chests and Drawers, and Baskets for all kinds of Berries. Peach and Picking Baskets, Butter Chests and Boxes, Cheese Boxes, Square and Round Egg Carriers. Drums for Figs, Cherries, Raisins, and for other Dried Fruits. Free Packages—Boxes not to be returned—a good article, costing less than Sawed Boxes. Lard Caddies, Coffee and Fruit Caddies. Turkey and Chicken Coops, Bee-Hives, Etc. Packing Boxes for Dry-Goods, Cigars, Candies, Canned Fruits, Honey, Macaroni, Crackers, Sugar, Soap, Boots, Etc.

In fact, every style of Boxes manufactured in the Union, and turned out in the Best Style at Favorable Prices. Orders from the country well attended to

LAND PLASTER.

(Sulphate of Lime.)

This fertilizer is especially well adapted to California lands and climate, and is destined to be used to immense advantage.

PRICES GREATLY REDUCED.

In bulk, \$10 per ton; in barrels or bags, \$12.50.

Golden Gate Plaster Mills.

LUCAS GESNER & CO.,

215 and 217 MAIN STREET, SAN FRANCISCO.

SHOT-GUNS, RIFLES, PISTOLS & REVOLVERS,

Of any and every kind. Send stamp for Catalogue. Address Great Western Gun and Revolver Works, Pittsburgh, Pa.

IRON PIPE.

Pipe Fittings & Brass Goods,

AT BOTTOM PRICES.

JAMES L. BARKER,

406 & 408 Market street, S. F.,

HARDWARE AND METAL

Commission Merchant.

Orders by mail will receive prompt attention
mrl3-cow-bp

J. & P. N. HANNA,

IMPORTERS AND DEALERS IN

Grain, Wool, Ore and Bean Bags, Flax, Cotton and Linen Twines.

COTTON, DUCK, RAVENS AND DRILLS—33, 36, 40 42 and 45-Inch Wide Duck; 8, 10, 12 and 16-Ounce Duck.

Ore Bags, Tents and Howe
MADE TO ORDER.

Nos. 308 and 310 DAVIS ST.,

San Francisco, Cal.

Geo. W. Chapin, Real Estate Agent, 434 Montgomery St., San Francisco, buys and sells Ranches in all parts of the State. City Real Estate exchanged for country property. MONEY LOANED. Post Office Box 1120

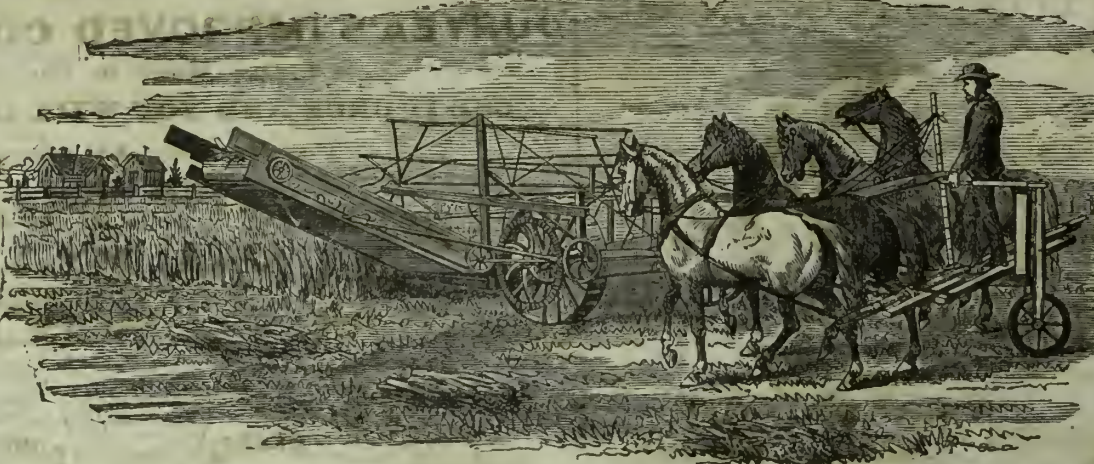
BAKER & HAMILTON,

Nos. 7 to 19 Front Street, San Francisco.

Nos. 9 to 15 J Street, Sacramento.

Haines' Genuine
Double Gear Headers
and The Sweepstake
Single Gear Header.

After years of successful trial in the field, we last season concluded to adopt the Single Gear Header, and have been to great extent in having it improved from patterns furnished us by the best of our practical farmers in the State. The Sweepstake Single Gear Header, with Center Pitman, for 1875, is the most complete and perfect header that has ever been manufactured. The Drive Wheels are strong hinged and made higher than the wheels on any other header in the market; consequently they run higher, by fully one horse. The Draper is extra strong, and completely protected from wear by the very best leather belting. The Guide wheel and Boxes are greatly improved, making the steering much easier for the driver. These improvements will be appreciated by all header men; the main frame is braced and trussed with 3/4 inch round iron, in such a manner that it is impossible for it to warp, or spring out of shape or true. The Finger Bar is sloped downward and backward to the Draper, so that it is impossible for the short heads of grain to shake off the Finger Bar to the ground. The Pole is coupled to the main frame in an improved manner, by means of two strong pieces of wrought iron and two castings, with holes as is desirable. The Reel is braced with 5-16 inch iron rods, running from the spokes of the center wheel to the hubs of the end wheels, always holding the Reel firm, and preventing it springing end-ways and breaking the slats, or pulling them off the spokes by catching on the arms that support the Reel. The spout is attached in such a manner that it can readily be taken off or put on without all the trouble and labor that was necessary with the old style of spout.



SWEEPSTAKE SINGLE GEAR HEADER.

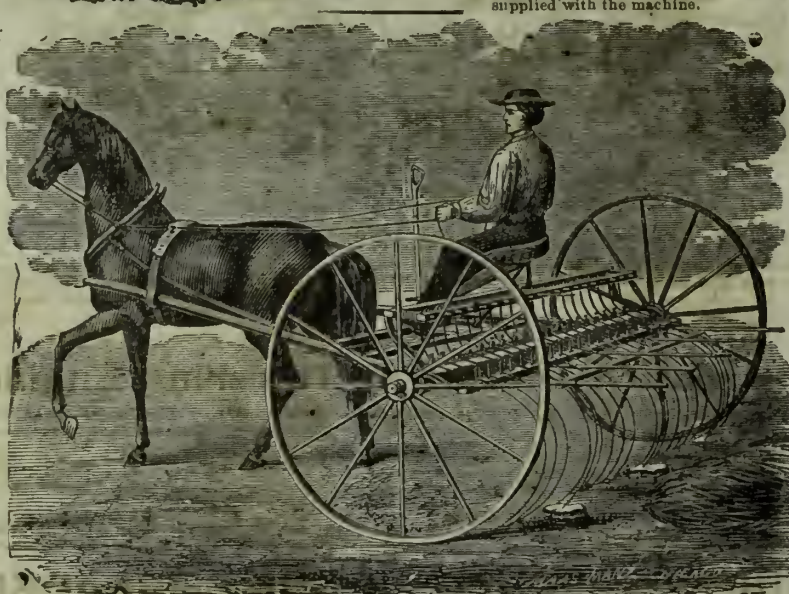
Champion Reapers and
Mowers.

All the Champion Machines have the wrought iron frames, and the wrought iron connection of the cutter bar to the main frame, securing the greatest strength and durability, with the least weight. The stationary wrought iron axle for the driving wheels draws away with two necessary boxes, so there are but three boxes on the frame to wear. All of these machines have the Dropping Drag Bar for tilting the points of the guard fingers down to cut lodged grass close to the ground, or turning them up to pass rough or stony places. The cutter bar can be entirely raised from the ground to pass over obstructions while cutting, and it folds conveniently for transportation. The Champion does its work smoothly and well, and can always be depended on; is light of draft, and easily managed by the driver. The system of duplication is complete; any part may be replaced or exchanged while in the field, without the use of any tools except the monkey wrench, which is supplied with the machine.



CHAMPION MOWER.

HOLLINGSWORTH SULKY RAKE.
It has Adjustable Compound Spring Teeth, 20 in each of them, being quite independent of the other. The upper end of the teeth play upon a spiral spring, thus avoiding other obstructions. The Teeth are of Spring Steel, tempered in oil. Every inch of steel serves as a spring. By virtue of their adjustability the teeth can readily be adapted to every variety of work, a feature which no other rake has. The rake is finished in the best manner possible. At all of the field trials they have always come out victorious.



HOLLINGSWORTH SULKY RAKE.

Sole Agents for Ames' Celebrated
Straw and Wood-Burning Engines.

1874. GUIDE AND CATALOGUE 1875.
FREE.

To persons contemplating purchasing I will send my ILLUSTRATED, DESCRIPTIVE CATALOGUE and GUIDE to the VEGETABLE and FLOWER GARDEN WITHOUT CHARGE. It contains the most extensive and valuable list of



Flowering Bulbs, Roots and Plants, Semi-Tropical Trees, Ornamental Shrubs, Fruit and Shade Trees, etc. ever offered in this market. It tells how to successfully grow the Australian Blue Gum, the Monterey Cypress, Pine, etc., and the proper method of Cultivating Tobacco on this Coast.

My stock of seeds is in part my own raising and in part direct importations from the best European and Eastern growers, and is unsurpassed in all respects by that offered by any other establishment.

100,000 Australian Blue Gums and Monterey Cypress in boxes at from \$30 to \$50 per 1,000, raised at my own Nursery at San Rafael.

R. J. TRUMBULL,
Grower, Importer, Wholesale and Retail Dealer in Seeds, Shrubs, Trees, etc.
207 3/4 - 6m-16p - 427 Sansome street, S. F.

San Francisco Land Agency,

E. L. SMITH & CO., Managers.

A Medium for the Sale of Every Description
of Real Estate.

Office, No. 331 Kearny Street.

WANTED—DESIRABLE LANDS AND FARMS
in every county of the Pacific Coast, at SAN FRANCISCO
LAND AGENCY, No. 331 Kearny street.

WANTED—SHEEP AND SHEEP RANGES
For Sale at SAN FRANCISCO LAND AGENCY, No.
331 Kearny street.

EMIGRANTS INTENDING TO SETTLE IN
Oregon or Washington Territory furnished with full
information, free of charge, at SAN FRANCISCO LAND
AGENCY, No. 331 Kearny street.

NOT WANTED—WORTHLESS LANDS, BAD
titles or exaggerated descriptions, at SAN FRANCISCO
LAND AGENCY, No. 331 Kearny street. E. L. SMITH
& CO., Managers.

NEW CROP OF

BLUE GUM SEED.

GRASS AND CLOVER SEEDS.

FLOWER AND VEGETABLE SEEDS.

TREE AND FRUIT SEEDS.

OF EVERY DESIRABLE VARIETY AND OF THE
BEST QUALITY; OFFERED AT WHOLE-
SALE OR RETAIL, BY

GEO. F. SILVESTER,
SEEDSMAN,

No. 317 Washington Street,

SAN FRANCISCO

Dewey & Co. { 224 } Patent Agt's.
{ SANSOME ST }

Improve Your Poultry,

IT COSTS NO MORE TO KEEP GOOD FOWLS
THAN POOR ONES!

OAKLAND POULTRY YARDS,

Cor. 18th and Castro streets, Oakland, Cal.

Eggs for Hatching

GUARANTEED FRESH,

True to Name,

And to carry safely to
any part of the country.



BRAHMAS, LIGHT AND DARK LEGHORNS, WHITE
AND BROWN HOUDANS, COCHINS, BUFF,
BLACK AND PARTRIDGE POLISH, GOLD
AND SILVER, HAMBURG GOLD-
EN, SILVER AND BLACK
GAMES, AYLESBURY AND
ROUSE DUCKS, DORK-
INGS AND BAN-
TAMS.

BRONZE TURKEYS, the Largest in America.
Send for Circular to

GEO. B. BAYLEY,

Box 559, San Francisco.

Calistoga Real Estate Company.

Calistoga, with a population of about 800 persons, is a village watering place at the head of the valley of Napa, in California. It is four hours' travel north of San Francisco by steamboat and rail.

Its shipping port is Vallejo, on the bay of San Francisco, forty miles distant by rail. It lies at the head of the most charming valley in the State.

THE BEAUTIES OF NAPA.

In traversing this thirty-seven miles of fertile dale, the eye never wearies. If one ascends the sides of the leafy mountains that bound the valley on either side, whether looking up the valley or down, and from whatever point of view, the scene is one of ravishing beauty.

Mounting the summit of St. Helena, which towers over all, far to the east the snowy Nevada bound the view; and to the west spreads the Pacific ocean, with its winged ships and its blue horizon. To the north are the vast forests of Mendocino, its stately trees, turned to shrubbery and Clear Lake in its pride of expanse dwindled to a mill dam.

THE WARM SPRINGS.

From the beauties of Calistoga we turn to its other attractions. The estate covers 2,000 acres of fertile land. Its warm springs are crowded with invalids, who flock to its healing waters, and who return cured of their rheumatism, their dyspepsia, their torpid livers and their tender kidneys. The medicinal elements of the hot springs are principally iron, magnesia and sulphur. In this climate, the season of watering places is prolonged.

THE SURROUNDINGS.

By consulting a map it will be apparent that Calis-

toga is destined to become a commercial town of importance. It is the center to which converge innumerable highways leading to many of the richest cultivated valleys of California.

INDUSTRIAL ENTERPRISES.

A new industry is now being introduced at the head of the valley of Napa, which will give easy employment to all the boys and girls, and contingently it will support other new industries. It is but the beginning of many others. Three miles below Calistoga is located as the site of a large factory for saving and canning fruits and vegetables test now go to waste, and encouraging the production of more. In no part of California can these healthful elements of human food be cultivated more cheaply or more abundantly. Considering the depth of its rich soil, its prolonged season, and the extraordinary vegetable growth in this country, one acre may be considered equal to three wherever this industry is carried on in the Atlantic States. If irrigation be wanted, artesian water may surely be found all along the valley, for it is backed by mountain ranges full of living waters.

MINES:

GOLD AND SILVER AND QUICKSILVER.

Calistoga is the center also of a great mountain range rich in mines of cinabar and silver. Already its furnaces are producing mercury, and the product is increasing yearly. A number of valuable mines are now being profitably developed in the region around the base of Mt. St. Helena, at Pine Flat, on the Great Geyser road, and near Sillies' Mill, on the Clear Lake road. All of these are from ten to fifteen miles beyond Calistoga, to which point their products come, and from

which their supplies are carried. The deposits of cinabar occur in well defined veins, and as they are now being scientifically developed they bid fair to rival in productiveness the celebrated mines of New Almaden.

CALISTOGA REAL ESTATE CO.

The splendid property above described, containing 2,082 acres, divided into town lots, suburban lots, country seats, hotel property and farm tracts, has been bought by the above named company, and is now offered for sale to the public.

The Capital Stock of the Company is
\$1,000,000,
Divided into 20,000 Shares of \$50 Each.

The sale of a certain number of shares has been authorized by the Board at the rate of
Twenty-five Cents on the Dollar, Making
12.50 Per Share.

By an arrangement between the former owner and the present company, no portion of this land or the proceeds of its sale, is consumed by expenses or in even the smallest degree diverted from the use and benefit of the stockholder.

Whoever buys Stock in the Company receives his pro rata share of this property, with its Crops and Rents in the meantime, without one cent of deduction for expenses of any kind, even including Taxes. And

this, too, no matter how valuable the property shall become.

Unlike the homestead schemes which have heretofore attracted our people, this plan gives homes and interests in and adjoining a town already built; where trade and growth are already assured; and where daily increase gives promise of greatly added values to all its property. It is a division of this ripened heritage that is now offered to the subscribers.

TRUSTEES:

E. W. BURR,
President Savings and Loan Society.
C. HARTSON,
President Bank of Napa.
J. B. FRISBIE,
President Vallejo Commercial Bank.
JULIUS WETZLAR,
Pres. Capital Savings Bank, Sacramento.
COLONEL J. P. JACKSON,
San Francisco.

WILLIAM H. MARTIN,

GENERAL AGENT,

No. 1 Webb Street, Cor. California, S. F.

PACIFIC RURAL PRESS

Volume IX.]

SAN FRANCISCO, SATURDAY, MAY 15, 1875.

[Number 20]

Openings for Immigrants.

For the benefit of those who are in search of locations, we have gathered the following information and suggestions in regard to probable openings. A resident at Cold Spring, El Dorado county, writes to the San Francisco Chronicle as follows:

"So far as I am able to judge, there is an opening in the county during the present season for at least 1,200 or 1,500 laborers. Two large ditches are under way, and the owners need and must have help. White men are preferred but if not obtainable, necessity will compel them to employ Chinamen. Homes are to be had anywhere in the county, improved or unimproved, and at prices ranging from \$500 to \$10,000. Land can be had in many places for the locating. The climate is unsurpassed, but the facility for getting produce to market only tolerably good. The educational advantages are fair."

While the *Republican* of the same county says: "It is well known that there are large tracts of land in El Dorado county that can be obtained for from \$1.25 to \$2.50 per acre, and that these lands are in many instances well timbered and capable of producing hay, grain, fruit trees and grape vines, with but little irrigation."

In regard to work for immigrants in Butte county, the *Oroville Mercury* of April 30th makes the following statement: "Almost every mail brings us letters of inquiry about lands, work, etc., from parties that have lately come into this State. We have taken considerable pains to find out, so as to return correct answers. There is hardly a farm in Butte county that does not employ at least one man the year round. We mean those that till over 300 acres. We do not know how many such farmers there are in the county, but the number is not small, and all want help. Some ranchers employ the year round twenty and thirty men. Any young or old man that is desirous of getting work of this kind can do so without any trouble or delay. If he proves himself to be a good man, he can get employment as long as he desires it. Our farmers complain that they cannot get good men, or rather that they come to them broke, and after working long enough to get a few dollars, off they go to some of the towns and remain till the last dollar is spent. We also want female help. It is absolutely impossible to get a girl to do housework at any price. Yet good wages are offered, the work no harder to be done here than in the East, and the girl treated as a member of the family. A large number could find employment both here and in Chico. We know of no reason why every able bodied man and woman that comes into the county should not find employment of some kind in a short time. Don't stop in the towns, but strike out upon the ranches and ask for work and good situations can be found."

Monterey county offers the following through the *Hollister Enterprise* of May 1st: "With reference to the capacity of this section to furnish employment, it is better, probably, than most any other locality in the State. The crops are better than those in any other district, and considerable extra help will be required to harvest them. A considerable number of good hands can very readily obtain work at fair wages. After the harvesting comes threshing, hauling, etc. And when these are done many good laborers will certainly fall into permanent situations throughout the town and country."

The *Napa Reporter* says: "It is not very generally known that there are plots of land in this county that can be purchased for \$40 to \$60 per acre, having improvements thereon, such as house, barn and fences. Parties looking for farms seem to think that all the land in this valley is held at from \$100 to \$150 per acre. This is a mistake, and a consultation with our real estate agents will develop the fact that good farming and vineyard lands can be bought at prices on which working men can make good interest on their money."

The *Kern County Courier* says they have employment for at least a thousand sober, industrious men in that county.

The *Lake County Bee*, April 29, says: "Here, in our county of Lake, the most delightful, and, at this time, the most progressive portion

of the State, there is an absolute scarcity of laboring men. At the various mines there is always a demand for men who are willing to work. The season is advancing and harvest time will soon be upon us—an event which our Granger friends, on account of the scarcity of help, are regarding with apprehension. We have also some valuable unoccupied timber lands, which a settler could homestead or pre-empt, or he could purchase improved lands at reasonable rates."

The *Colusa Sun* presents the advantages of its county as follows: "Colusa county is sixty

above that, \$2.50 to \$5. Land adapted to the production of small grain can be purchased at from \$8 to \$25 per acre; land capable of growing anything and lying along the river, at from \$20 to \$40; all on good terms. There is no public land of any account to be taken up. We have the present season the best crop prospects of any county in the State, except, perhaps, Sonoma.

A resident of Marin county writes to the *Call* as follows: "If you would inform some of the immigrants of the following facts, you would perhaps confer a favor to them. The whole

to farm labor, will do better to remain in the farming section, where they can receive from \$30 to \$60 per month (the latter in the harvest season) than to spend time and money in the cities where labor is a drng. Six months on one of our ranches will insure them an excellent home, and, if economical, a nice little sum of money."

The above are the most tangible points that we can at present give in this connection. Our exchanges throughout the State present the general claims of their respective localities, manifesting a commendable interest and pride in the neighborhoods of their publication, and we bespeak for them an appreciative reading; but what we are at present striving for is a definite point, here and there, that the immigrant can start for.

Scenery in Colorado.

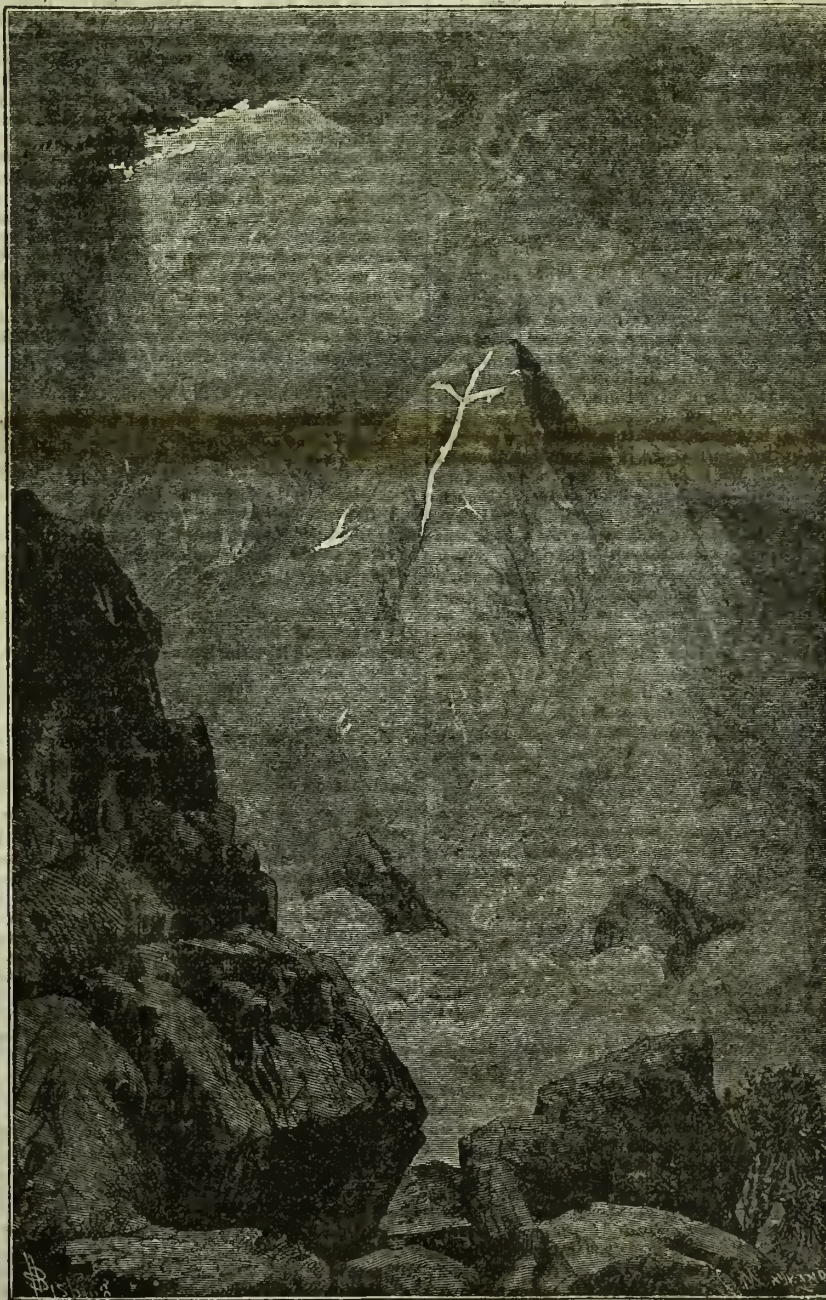
Very few people were aware before the publication of the report on the Geographical and Geological Survey of Colorado, by Hayden, of the beauty of the natural scenery in so many places in Colorado. These reports are so well written, and the localities all described with so much detail, and with such excellent engravings, that it is almost as good as a trip to the country, to read the reports. A most wonderful region is described from Elk mountain to Middle Park. The trip down Eagle river was made principally for the discovery of some way of access to the mountain of the Holy Cross. The party were obliged to descend the river about two miles, and then climb the steep mountain side over a network of fallen timber. The obstructions to travel were very great; they often labored for a day or two to find some path to approach the mountain peak, and were obliged to cut their way through the fallen timber, and finally succeeded in getting within about five miles of the base of the peak.

The main mass of the peak, like the whole of the Sawatch Range, is composed of granite gneiss. The summit of the Holy Cross is covered with fragments of banded gneiss. The amphitheaters on all sides have been gradually excavated, and the more or less vertical sides show the intermediate steps very clearly.

The characteristic feature of the Mount of the Holy Cross, as shown in the engraving, is the vertical face, nearly 3,000 feet on the side, with a cross of snow, which may be seen at a distance of fifty or eighty miles, from other mountain peaks. This is formed by a vertical fissure about 1,500 feet high, with a sort of horizontal steps, produced by the breaking down of the side of the mountain, on which the snow is lodged and remains more or less all the year. Late in the summer the cross is very much diminished in size by the melting of the snow which has accumulated in the fissures. A beautiful green lake lies at the base of the peak, almost up to the timber line, which forms a reservoir for the waters from the melting snows of the high peaks. From this, one of the main branches of the *Roches Moutonnées* creek flows down the mountain side, forming several charming cascades in its way. The worn out rocks or "sheep-backs," in the valley of the creek, display most remarkable examples of the curious workings on the surface of the gneiss produced by the separation of the different constituents of the rocks. Many of the rocks look as if they were covered with a confused mass of hieroglyphics. These peculiar workings in the structure of gneiss are not uncommon, but they are shown on such a scale in this locality as to attract attention.

RETURNED.—The friends of P. H. Sumner, who was so shockingly assailed in Oakland, last October, will be pleased to learn that he has returned from the East in recovered health. He will resume his real estate business in this city. We do not hesitate to renew our recommendations and former good wishes for Mr. Sumner, who is still a live agent.

WATSON'S NEW COUNTY AND RAILWAY MAP OF THE PACIFIC STATES.—We have received from D. Needham, of Oakland, general agent for this coast, a copy of the above named map. Persons who want a convenient map, mounted or in book form, for the low price of \$1, are referred to this.



THE MOUNTAIN OF THE HOLY CROSS.

miles from south to north. It embraces a larger area of the Sacramento valley than any other county. It is about fifty-five miles from east to west. It contains about 2,800 square miles. Of this 1,506 square miles lie in the Sacramento valley. This land is nearly all good wheat land, and a large portion adapted to the cultivation of cotton, tobacco, castor beans, hops, or anything else one has a mind to plant. The hilly or mountainous portion of the county is interspersed with rich alluvial valleys. The hills are mostly good stock range. The county is capable of supporting a population fully twenty times its present number. The Sacramento river runs through the county from north to south, and the navigation of it is good. Freight from the town of Colusa, \$2 a ton;

of Marin county has to go to Petaluma for all the laborers they need, and particularly for all the milkers they need. At present there is not one good milker to be had, as the writer knows by experience, and some such men could find employment here within twenty-four hours. But they must be good milkers, and be able to milk nine or ten cows in one hour."

Another writes from Bantas, San Joaquin county: "There is a good opening here for a blacksmith and wagon-maker. Good farming land not far from the railroad station can be bought at \$10 per acre; the same can be rented for one-fourth of the crop."

The *Sutter Banner* of May 1, has the following: "Immigrants from the East, accustomed



CORRESPONDENCE.

In this department we shall devote considerable space for the information of immigrants from abroad and settlers in different parts of the Coast. Without prejudice to any section of the Pacific coast, we will endeavor to give as much reliable information from every portion as our space will admit. We invite correspondence from all who wish to receive or impart information appropriate to this department. Such matters are of interest to all our industrial men and women—to all who have the welfare of this new portion of land, and the prosperity of its people at heart.

Farm Notes from Santa Clara Valley.

[From our Regular Correspondent.]

Three miles north of San Jose is located the little forty-acre farm of Mr. W. A. T. Edwards, which may be justly entitled

The Model Farm of Santa Clara Valley.

The location is pleasant and convenient to market, being on the county road between San Jose and Alviso, the soil all that could be desired, being a deep, rich, sandy loam, retaining moisture to a wonderful degree through the driest seasons, enabling him to raise good crops of grain, roots and vegetables, without irrigation. His divisions of the grounds for different crops, his stables, yards and pastures for stock, his system of irrigation from a strong flowing well for crops requiring an abundance of water, and his nicely laid out walks and drives, bordered with trees and flowers, are all suggestive of convenience, order and taste. Among his trees we noticed some remarkably fine weeping willows, one of which we had the curiosity to measure, which had grown from a cutting planted ten years ago, we found to be fifty-nine inches in circumference, three and one-half feet from the ground.

Mr. Edwards is cultivating nine acres in asparagus, and such asparagus we never saw before; one sprout which he cut for us measuring fourteen inches in length and four inches in circumference, and very tender.

He has sixteen acres in strawberries, a portion of which are in his orchard between and under the apple trees; between the rows of these plants we noticed he had onions growing, thus raising three crops on the same ground at the same time and all looking well.

While looking over the farm our attention was directed to a small field of barley, the best piece we have seen this year. It stands thick and evenly on the ground and as high as the fence. Mr. E. estimated that it would yield about sixty cents per acre.

Mr. Edwards, who is a lover of fine cattle, has a small herd of choice Jerseys, one fine four year old bull and several cows. While speaking on the subject of keeping a good class of milch cows, he had occasion to refer to the notes of his farm book. One item we asked the privilege of copying, in substance, to-wit: The amount realized in one year, from the sales of butter from seven cows, after supplying the wants of the family, was \$634.23, and from the sale of seven calves the same year, \$353.00, making \$987.23 as the product of seven cows in one year. Who can beat that?

Alfalfa.

Dr. B. F. Headen, of Santa Clara, has the best ten acres of alfalfa we have seen this year. It was sown about fifteen months ago, and although he has pastured twenty-four Angora goats, and ten head of horses and cattle upon it all spring, it would now yield a fair crop of hay if mowed. It has never been irrigated and the stand is as thick and even on the ground as could be desired. Milch cows that would not do well on such pasture ought to be sent to the shambles. No fears, however, for those we saw up to their eyes in this clover.

Hop Yards.

We are glad to notice hop growing is receiving increased attention for the last few years, in this valley, and from the thrifty well kept appearance of all the yards, one would conclude that it was a profitable business. J. & C. T. Bird have a yard of forty acres on their farm south of town in the "Willows," which looks remarkably well, the ground under thorough cultivation, the redwood poles of uniform height, all set in straight rows, with a net work of strings from their tops, which will in a short time present a pretty bower-like appearance, when the vines now winding up the poles spread over and cover them.

Mr. W. H. Bates has also a plantation of sixty acres adjoining the Bird place on the south, and on the same kind of land. Mr. Bates, we learned, shipped two car loads of hop roots from this yard to New York this spring.

Mr. W. F. Hamilton, three miles south of San Jose, on the Almaden road, has fifty acres in hops, on fine garden land, and under neat and thorough cultivation.

J. H. Flickenger has six acres in hops on his ranch, east of the Coyote river, which I have not seen.

Tyler Beach has about twenty acres joining the East San Jose Homestead on the south, which looks remarkably well, the plants being rather more forward than those in the Willows. This gives us 176 acres in hops within three miles of San Jose. There may be other yards we have not noticed.

There is on Mr. William Hall's ranch, two miles west of Santa Clara, a two or three acre grove of Australian eucalyptus or blue gum trees, which make a beautiful appearance from

the road. The trees are four years old and planted in alternate angle, or break joint rows, about twelve feet apart, and are now about forty feet high, and from eight to ten inches in diameter near the ground.

A few acres of these fast growing evergreen trees on each ranch in our valleys, planted in groves or wind break belts, would add more to the beauty, comfort and material wealth of the country than anything else we can think of, costing so little.

Mr. I. A. Wilcox's small fruit farm, two miles northwest of Santa Clara, is deserving of a more extended notice than we can give it now. Mr. W., who is an experienced nurseryman and fruit grower, has spent much time and money in introducing and experimenting with many sorts of strawberries and other small fruits on his place here. He was the first to introduce, and is yet the principal grower of the cherry currant in this valley, having now twenty acres in this class of fruit. This currant, as cultivated by Mr. Wilcox, is peculiarly valuable for jellies, and bears long shipments remarkably well, as has been fully tested by his regular shipments to Salt Lake City, during the last two fruit seasons, as well as to other distant points in Nevada and California.

Mr. W. is also a large grower of gooseberries, having in ten acres of the Houghton seedling variety, growing strong and thrifty. In this black rich land of almost inexhaustible richness, with plenty of water from strong flowing wells, the strawberry is just at home. Mr. W. is now cultivating twenty acres. Last year, while many growers failed of having any second crop at all, he realized \$800 from eight acres of his second crop.

G. W. M.
San Jose, May 5th.

Letter From Michigan.

MESSESS. EDITORS:—I am going to send you some few lines about the hard winter we have had since the first of January. When it began to come it was very stormy by spells, and when we had a thaw it was only enough to let the snow absorb the most of the water; but as soon as that was frozen again, where it was not very deep, as in the western part of Calhoun county, the wheat was all killed out, and now some farmers are plowing it under for some other crop. There were a very few places, where the west and north sides were sheltered by woods or timber groves, it was not as bad.

In Kalamazoo county the wheat seems not as much killed out where the water stood as farther east. It is killed some on the knolls, where the wind could drift the snow off, but otherwise it was not killed much. A Mr. Wilson, in the town of Cooper, had a middling good crop last year, but this season, where it slopes to the southwest, it is killed off about two-thirds. We had some warm days the fore part of April, and on the fifteenth, sixteenth and seventeenth it snowed some. I will give you the number of inches of snow in different places on the seventeenth of April. Seven miles west of Kalamazoo it was six inches deep and snowing; at Kalamazoo, four inches; at Galesburg, three inches; nine miles east of Kalamazoo and in the township of Battle Creek there were many bare places, and only fifteen miles from Kalamazoo, on a short course eastward. This makes quite a difference in the snow line, both spring and fall. There was some sleighing in the western part of Kalamazoo county when there was none at the other places last Thanksgiving Day. Now any of your readers may judge from the above about how the wheat has been killed in this district, where the snow has fallen the most and where it has not been protected by the coat of snow. Many of the farmers' apples and potatoes have been frozen, and potatoes are bringing \$1.20 a bushel. Beans came up in a short time from \$1.75 to \$2.50 and \$3.00 a bushel, as soon as folks found that potatoes were frozen bad. Some who had their potatoes planted have got to plant over, as the ground has been frozen so deep that it has killed their seed, planted last spring.

We have had it very dry for the last week in Battle Creek, and wheat did not seem to grow any; but we had a little rain yesterday, and wheat and grass look better. It is reported that there will not be any peaches this season, but some think there will be some in the western part of Kalamazoo county.

HENRY H. MAPES.

P. S.—On Sunday morning, May 2d, there was a coat of snow on the ground and cold wind, but the sun soon made the snow disappear. It had rained most of the day Saturday, then the snow came on, and the ground froze in exposed places; but the wheat and grass looks now as if the farmers would have some pasture to turn into soon. Many have lost most of their lambs this spring on account, we think, of the change of weather and not having green feed early enough for them to pick on. There seems to be quite a lot of wheat left over. It has been up to \$1.25 a bushel a portion of the time. I have taken some numbers of the PACIFIC RURAL PRESS and Weekly Oregonian up to Battle Creek with me, as many of them have friends in your State and city, and it makes a little different reading from what they have had, and being from near some of their friends they take more interest in reading them. I have not received my paper regularly this winter, on account of the storms on the western railroads.

H. H. M.

Battle Creek, Mich., May 3.

From San Luis Obispo.

EDITORS PRESS:—My husband has just left the house, with the request that I would write to you for information through the columns of the RURAL PRESS concerning the best time to transplant evergreens, especially the conifers. He has the idea that the most successful time is the month of June, but is not confirmed in his opinion, as his experience has been very limited.

The crops in this vicinity are looking well. Barley, which was sown late in the season, and which a few weeks ago gave some uneasiness on account of dry weather, is coming out rapidly under the salutary influence of the heavy fogs with which this county is so richly and invariably blessed, at this season of the year. Hay is being harvested in great quantities all over the valley, and as there was an unusually large area of land sown to barley for hay this spring, the crop will be correspondingly great, and prices consequently low.

As to the fruit crop in this vicinity, the frosts which so nearly proved fatal to many parts of the State, scarcely affected the blossoms in the least degree; although peaches, apricots and almonds were all in full bloom at the time the frost did so much damage elsewhere, yet, for some reason, perhaps on account of the drying winds, the slight "nip" we had here did not seriously frustrate our prospect of abundance in the fruit line, for the future, this season. And now please bear with me while I speak a little in my own behalf. Please do not publicly "respectfully decline" anything from the pen of T. W., even if she does make such an egregious mistake as to send anything unworthy, in the future, to the peerless departments of our favorite RURAL. Please look over anything I perhaps may have the courage to send, and if not "up to the standard" quietly and "respectfully" drop it in the waste-basket, for I promise the amount of paper therein will not be greatly augmented thereby, and if it is not published, the author will most certainly find it out, for every article of our favorite paper is read and commented on with freedom and pleasure at our fireside. And just to prove how much we do prize it, please allow me to state, that, though we have met with unfortunate reverses the last year, and in consideration of the Nebraska sufferers gave up every other paper and magazine, yet because we thought it impossible to do without it we still gladly welcome each week the peerless PACIFIC RURAL PRESS. So you see that I only desired to "push a pound," as I have occasionally done before, but if it did not amount to a grain 'tis all right, only please do not mention it next time.

T. W.

San Luis Obispo, Cal., May 5, 1875.

[The transplanting referred to above may be done in June, but during winter, while the trees are dormant, is the best time. If the transplanting is done in June, be careful to ball the earth about the roots and have it adhere to the fibers as much as possible. After moving shade them and water freely, but not excessively so as to wash the earth from the roots.]

Now, Madam, about that horrid waste-basket. Do not be afraid of it. It was not made for contributions like the above.—EDITORS PRESS.]

Moles.

MESSESS. EDITORS:—I beg pardon of your readers for intruding upon their attention with a subject as worthless as that which I have chosen for this letter; yet while I write I fondly indulge the hope that I shall succeed in touching a chord of sympathy in some honest experimentalist bosom, whose appreciation of common justice will prompt him or her to suggest some remedy by which I can obtain at least partial victory over the ruthless little abomination, whose unpretentious name heads this endeavor. ("The moles ye have always with you" (pardon the improvement on the noun); you find him on the mountain far from the habitation of man; you trace his tiny furrow all along the sand-covered strand, and when the tides have receded for the time you see his track, ere the sun can absorb the moisture deposited by the departing wave; you discover this little depredator's presence in the fertile valley, as well as the sterile desert; along the brooklet's bank, by the river's shore, in open field 'neath covered thickets; in fact there is no place where he is not.

And now I am brought home to say what I started out to, and that is, he gets in our gardens and plays the mischief with things in general, and our choicest plants in particular. Not contented with eating up your corn and rising up your pumpkin seeds a full week before their time, he waits until you have prepared your flower bed, and after you have worked hard, composted and spaded, and hoed and raked, and taken all the pains in the world to make things nice; when you have carefully sown your delicate flower seeds and bled and sprinkled and are congratulating yourself on the completeness of your work, to arise in the morning and behold the beds gridironed and thoroughly destroyed by the unmitigated cussedness of these outrageous little "workers in the darkness" is simply intolerably aggravating. Now, sirs, we have drowned out the squirrels, we have poisoned the gophers, we have frozen out the parasites; now, what shall we do with ye merciless mole? Will somebody tell us?

A. KAMP.

From Riverside, San Bernardino County.

MESSESS. EDITORS:—As you have kindly invited statements of the advantages and opportunities offered in the different portions of this State, for the information of the great crowd of immigrants now coming from the Eastern States, permit me to give you a few items from this locality.

Riverside

Is located in the upper portion of the Santa Ana valley, about thirty-five miles northeast of Anaheim, ten miles southwest of San Bernardino, and fifty-five miles southeast of Los Angeles.

The trend of the valley in which it is situated is from northeast to southwest. The Cucamonga mountain, crossing the valley almost at right angles on the northeast, and the Temescal mountains, crossing it at about the same angle on the southwest, give it a sheltered location, both as to the severest winds from the north and southwest, as also from the heaviest fogs from the ocean, which is about forty-five miles distant.

It is about 1,000 feet above the sea level, and from seventy-five to one hundred feet above the level of the Santa Ana river, and possesses a dry, cool, bracing atmosphere, the average temperature for the year for four years being 67 to 68 degrees.

The Southern Pacific railroad, now building to the San Geronimo pass, is located within five miles, and the cars will be running to the station for this place and San Bernardino within thirty days from date; now the communication is by stage from Spadra.

The soil is the red, sandy and clay loams, easily worked, holds moisture well, and is considered by good judges the best quality of land for the growth of semi-tropical and the best class of deciduous fruits in Southern California. The surface of the valley is almost a plain, sixteen miles in length by from three to six miles wide, and throughout its extent has a slope to the southwest sufficient for easy irrigation, and not sufficient to cause the soil to wash.

As the lands can be best used for the growth of all the fruits for the Eastern markets they are subdivided into ten-acre tracts, with a main avenue of sixteen miles in length by from eighty to 132 feet wide, with suitable streets, fifty to eighty feet wide, crossing at right angles.

Water sufficient to irrigate the whole has been secured by the new company, and sixteen miles of irrigating canals have already been built and are in successful operation; eight miles more will be finished by fall. Water sufficient for irrigating twenty acres, and for the use of an ordinary sized family costs now \$60 per annum. About eighty families are now here, and it is thought that when there are more consumers a larger supply of water can be furnished at a less cost. Lands are sold at from \$25 to \$40 per acre; one-quarter cash, the balance in three annual payments, with ten per cent. interest. A large amount of Government and railroad lands in the vicinity are unoccupied, but they are mostly so elevated that they cannot be irrigated, yet a fair crop of grain or barley may be raised each year by judicious cultivation.

Wood for fuel is to be had prepared for use at \$8 per cord, but the owner of a ten-acre tract can have in three years all the fuel he needs from the pruning of his live fences and orchards. The growth of all kinds of fruit trees is so strong, healthy and fruitful that it must be seen to be believed.

There will be three villages in the tract, five miles apart, establishing centers for social, educational and religious privileges.

At this village, Riverside, we have already a neat Congregational church, a large and well built schoolhouse and a flourishing Grange, which contemplates building a hall for their use. There are also a postoffice, dry goods store, grocery and drug store, two wagon and blacksmith shops, telegraph office and small hotel. A stove and tinware house and shoe shop would do well.

To men of small means, who are seeking quiet, comfortable and productive homes, surrounded by most of the advantages that civilization affords, and beautiful mountain scenery, free from all of the extremes of climatic changes, except that of dryness, which is easily mitigated by irrigation, few places in the State offer greater inducements.

R.

Riverside, San Bernardino Co., May 1.

Crops at Borden, Fresno County.

MESSESS. EDITORS:—At my last writing I was not aware that we had sustained any serious injuries from the frost; but a few days later we found the damage to be fearful, rendering hundreds of acres of grain worthless for anything but hay. On looking around I find that all grain growing on land thoroughly irrigated last season is damaged but little; while that which had the same chances, except irrigation, was badly damaged. The great damage is confined to early grain. I see in the PRESS, of April 24th, a communication from San Joaquin county, stating that the bearded wheat appears to have stood the frost better than that not bearded. With us the bearded wheat has suffered alike with other kinds, though I do not know whether we have the same kind of bearded wheat spoken of or not. The late sown grain is doing reasonably well, as the weather has been favorable for some time past, although we have had no rain.

FARMER.

Borden, Fresno county, May 5, 1875.

From Ferndale, Humboldt County.

EDITORS PRESS:—I see in the PRESS many complaints of damage by frost of both fruit and grain, but we of Humboldt county have escaped, as our crops were not far enough advanced at the time. Yet we are not insured a full crop, for we are ten inches of rain short of last year's supply. April is generally a wet month, but this year it has been a dry one. We are now in the middle of our potato planting, and from what I can learn there will be a very large crop planted. Grass is good at present, but we have fears of a short crop. You had a list of big figures from Brother J. B. which are not the rule here, but rather an exception. I am agent for the sale of 120 acres of land, seventeen acres of which is under cultivation, including a good orchard, a schoolhouse on the next farm, a stream of water on the place and the county road through the land. This is good brush land and in a good location; if sold, possession will be given on the first of January next.

Ferndale Grange is doing well, new members are still coming in, and the co-operation fever is still raging.

Our county is full of men apparently without money and seeking work. I am afraid many of them will not find it, as the farmers cannot afford to employ much help, and the lumber men want men of experience in woodcraft.

JAMES SMITH, W. L.

Ferndale, April 30, 1875.

Useful Hints.

If you get a fish bone in your throat, and sticking fast there, swallow an egg raw; it will be almost sure to carry down a bone easily and certainly. When, as sometimes by accident, corrosive sublimate is swallowed, the white of one or two eggs will neutralize the poison, and change the effect to that of a dose of calomel.

For chilblains, cut up two white turnips, without paring, into thin slices; put the slices into a tin cup with three large spoonfuls of lard; let it simmer slowly for two hours, then mash through a sieve; when cold spread it on a soft linen cloth and apply to the chilblain at night.

Milk for breakfast, when used in the form of bread and milk, should never be boiled, but steamed; that is, the jug of milk should be stood in a saucepan of boiling water for two or three minutes until hot.

To prevent hard soap, prepared with soda, from crumbling, the bare may be dipped in a mixture of resin soap, beef tallow and wax.

SHEEP AND WOOL.

Eastern Wool Market.

Boston, May 8.—The Wool market continues very dull, though toward the close there was a slight increase in the demand. The sales of the week chiefly were of California. There appears more disposition on the part of holders to meet the views of manufacturers, though the change in rates has not been great. New spring is being received in moderate quantities, but prices realized are somewhat below what dealers were led to expect. It has got to be a very choice lot that will realize 35c; most of the sales were made at 30¢/32¢ or 33¢. Fall California has met with a very liberal demand, and prices continue firm. Both foreign clothing and carpet material are quiet, but prices exhibit no change. Sales for the week comprise 89 bales Australian, at 51¢/52¢; 25 do Cape, private; 30 do East India, at about 15c; 181 do spring California, at 29¢/35c; 300 do fall do, at 16¢/23c; 125 bags scoured, at 58¢/71c; 25 000 lbs Western Texas, at 27¢/28½c; 6000 lbs Eastern do, private; 75 bage No 1 pulled, at 25¢/30c; 100 do low super, at 40c; 60 do, at 45¢/50c; 30,000 lbs Maine do, at 56c; 25 do black do, private; 25,000 lbs X and XX Ohio fleece, at 54¢/55c; 5000 lbs fine unwashed Western do, at 57½c; 3000 lbs fat sheep's, at 31c; a lot of unmerchantable, on private terms.

Boston, May 8.—Transactions in the Wool market have again been quite large, but there is no improvement to notice, and holders are still disposed to close up their stocks as rapidly as possible. The principal transactions have been in pulled and California. Fine fleeces still move slowly, and holders have to shade a little on both fine fleeces and Australians to effect sales; but medium and combed and delaine fleeces still command very extreme prices. The stock of fine fleeces here is considerably reduced, and mostly in the hands of one house. Transactions in fleeces include some 116,000 lbs. Ohio and Pennsylvania fleeces, at 54c. for XXX, 53c. for good XX, and 51¢/57c. for low X and No. 1. A choice No. 1 Ohio would sell at 58¢/60c., while XX fleeces cannot be forced off to any extent at over 52¢/53c. Medium Michigan has been sold at 52c., while X ranges from 48¢/50c.; and choice medium New York has been sold at 53c., while good X sold at 49c. Medium, low X, and No. 1 fleeces are in fact the only fleeces that can be disposed of at a satisfactory price, and fine Wools are as much neglected as at any time for some weeks. The past scarcity of medium fleeces continues to turn the attention of manufacturers to fine supers, and this description is in demand at about previous prices. X pulled is very little

inquired for, and low pulled is also rather dull. There is still a disposition on the part of receivers to keep supplies of pulled sold up as close as possible, as prices are as high now as they are likely to be for some time. Transactions in California have been the largest for a long time, comprising 772,000 lbs. fall and spring, at 15¢/24c. for fall, and 21¢/36c. for spring. The highest price before obtainable for new spring has been 35c., and this may be considered an outside figure for choice lots. Good average lots will not bring over 28¢/30c. There have been sales of combed and delaine fleeces at 54¢/56c.; unwashed combed and delaine at 37¢/50c.; scoured, 53¢/\$1.05, and super pulled at 35¢/57½c.—Call.

Angora Goat Breeding Association.

[The Superintendent of this association, Mr. N. Gilmore, has kindly furnished us with the following, relative to a meeting held in this city, Thursday, April 29th, for the purpose of securing concert of action on the part of capitalists and others favoring the breeding of Angora goats and the production of mohair. —EDITORS PRESS.]

Pursuant to invitation and notice a number of intelligent and public spirited residents of this city and adjacent counties met at the rooms of the Superintendent of the "Gilmore Angora Goat Breeding Association," and were much surprised and equally gratified at the unmistakable proofs which met their view from all sides of the rooms, in the fine exhibition of the products of the Angora goat, consisting of buggy robes, mats, ladies' muffs and collars, sides of leather from the hides, etc.; also, full pieces of mohair goods for ladies' use, manufactured by Hall & Turner, Jamestown, New York, from mohair sheared from animals raised in this State by Mr. Gilmore himself. The examination of the various specimens removed at once any and all doubts that may have existed in the minds of any of the gentlemen then present of the success of the enterprise, and of the many advantages that will soon result to the State from its development. It was a source of regret, however, that so few of our capitalists availed themselves of so favorable an opportunity of becoming more conversant with a subject of so great importance, and in which, in the course of a few years, they will be necessitated to be interested. The agricultural press was ably represented. Colonel Warren and Cremony, of the *California Farmer and Commercial Herald*, respectively, Colonel J. H. P. Wentworth, of the *Resources of California*, Mr. Barnum, of the *Pacific Rural Press*, and Marcus D. Boruck, Esq., of the *Spirit of the Times*. The *Alta* was represented by Mr. Murphy.

The President of the company, Mr. D. L. McDonald, called the meeting to order, and in a few remarks as to the objects of the meeting, directed attention to the many articles on exhibition, and paid a high compliment to Mr. Gilmore, the exhibitor and producer, and earnestly invited capitalists to join with him in assisting to carry out the plans of the association for a full and grand development of the enterprise, showing most conclusively that if Mr. Gilmore, single handed and alone, had carried the production of mohair to such a successful point, what might be done in the immediate future by a liberal investment and concentration of capital under his management. Mr. Gilmore then explained the object and scope of the association, which are substantially as set forth in the accompanying circular:

The Gilmore Angora Goat Breeding Association.

Whatever tends to improve the material welfare of a community must be an object of solicitude and anxious interest to all the members thereof, and especially to those who are seeking profitable and safe investment for their capital. It is for the purpose of directing an intelligent public opinion to a subject of growing importance and manifest value, that the following statement of facts has been prepared for public consideration, with the hope and expectation that it will enlist active co-operation.

The breeding of Angora goats and the production of mohair is becoming a leading industry in this State, and has progressed to such a degree that breeders from our State formed themselves into a convention which met at Sacramento on the 28th of February, 1872, when Nathan Gilmore, Laurens A. Upson and W. J. Prosser were appointed a committee to report on the breeding, condition, etc., of Angora goats on the Pacific slope. That committee, in the discharge of its duties, rendered a full and exhaustive report, from which report the following has been copied.

"1st. That the experiment of importing and acclimating them has been crowned with success. They have proved both healthy and prolific, many of them bearing twins. The offspring of the pure blood goats are improved in size, and bear heavier fleeces than the imported, with no deterioration in quality, fully retaining their rich, silky and glossy character, a distinguishing feature over other textiles. The fleece will range in weight from three to three and one-half pounds each from third crosses to pure blood, where they are in large bands; but where they range in small bands, properly sheltered and cared for, they will average four to five pounds each. The whole number of pure blood imported goats, including their offspring, will approximate 240 head, about 100 of which are owned by one party in

Monterey county, about fifty in the hands of another party in El Dorado county, while the remainder are scattered throughout the coast. The gain in number and the increase in size may be attributable to climatic effects, and the superiority of our pasturage over that of their native region.

"2d. That the crossing of them with the native goat (breeding the Angora buck to the common female goat) has been equally successful. The progeny is healthy and increased in size over both native and pure blood stock. The fourth cross produces a heavy fleece, and of as good quality as the imported, while the flesh of the grades makes excellent mutton, which now commands a ready sale, the foolish prejudice against the use of their flesh yielding to good common sense, it being a well established fact that they are far more healthy than sheep, being free from scab and other cutaneous diseases; more cleanly in their habits, with none of the rank, musky smell so offensive in the common goat. Their flesh is also as white as that of the finest sheep—in this greatly differing from that of the native goat, which is quite dark. These qualities, when fully known, will in time give them the preference over all other meats for mutton.

"3d. That the arid plains, bushy foothills, and rough mountains of the entire Pacific coast are well adapted to their successful growth, has been fully demonstrated by actual experience, as they are now flourishing from Oregon on the north to San Diego on the south—from the shores of the Pacific to the sagebrush plains of Nevada, numbering, from the best data now at hand, over 40,000; and that there is enough of barren wasted land on our coast that is adapted for no other domestic animal, except the goat, on which millions of them could be raised free of cost, except for the purchase of the goats, the employment of a herder, the salting of the animals and the erection of a cheap corral and cabin, any intelligent person acquainted with the character and extent of the country and the habits of the animals will readily concede.

"4th. From the number of grade goats given, one might without reflection conclude that there should be a much greater number of wool bearing animals than there really is. A large majority of persons who first engaged in the business were induced from various reasons, principally from the scarcity of pure blood and high grade animals, to use grade bucks (and low grades at that), a great proportion of them being less than seven-eighths. No fleece has resulted from such crossing; neither is it possible to attain that end so long as such bucks are used. As well—yes, better—might the breeders of hores expect 2:20 colts by breeding full blooded mustang mares to half or three-fourth blood stallions. This much, however, has been attained: A large number of grades have been by this system of breeding, worked up to a point that by now crossing with the pure blood bucks, a flock of valuable wool bearing goats will be the immediate result; and we cannot too strongly urge upon all such breeders to at once cast off their grade bucks and replace with the pure blood animal. And to those who are thinking of starting in the business from the native female goat, we should earnestly urge them to procure none but the pure blood bucks—certainly none of a lower grade than fifteen-sixteenths, and to be sure and use none of them on any grade ewes above the second cross. We feel that this branch of the business cannot be too fully understood by those already in the business, or those who may think of engaging therein. In crossing, the fleece all comes from the buck, consequently the blood of the buck should be pure."

Since the time that report was made, the production of mohair has been largely increased; but for sufficient reasons herein set forth, not enough to keep pace with the wishes and expectations of its inaugurators and friends, nor with an ever eager public hope and desire, that had been artificially excited by kindly, but crudely digested articles in various journals of the State. The ardent efforts of practised and intelligent breeders, have been sadly retarded by the injudicious management of those who wished to become too suddenly successful, and persisted in the using of low grade bucks, being induced so to do by their comparative cheapness, and positive assurance of those who owned and wished to find a profitable market for them. Furthermore, Angora goats of superior quality are very far from being in numerical proportion to those that are inferior, and for these obstacles the business has not prospered as we could have wished, and had good reason to expect. It is to obviate these difficulties; consolidate the interest of intelligent breeders and capitalists engaging in this enterprise, that the association proposes to enter upon a more comprehensive policy, and to this end it is necessary to purchase and collect all the small lots of marketable mohair and pelts that are now scattered throughout the State, and render them available for sale and manufacture, thereby directing attention to our ability to produce these valuable articles. It is our intention to breed and maintain a large band of mohair producing goats of selected fine grade ewes, served only by pure choice thorough-bred bucks, and likewise to keep another band of pure blood ewes, and from time to time make fresh importation from Asia Minor.

This course of action will enable persons commencing the business to provide themselves with a selection of choice grade ewes and pure blood bucks, establishing a large and lucrative industry, and defying and wiping out all competition from inferior stock. The business once established cannot fail to be very lucrative

to those engaged in it, and in the very near future, will add millions of dollars to the annual income of the State. There are at present immense tracts of land bordering our ranges of mountains, that are entirely unsuited to cultivation, but afford the finest natural pastures for the Angora goat. While tending the flocks and performing other duties connected with the business of breeding, other occupations can be found to give employment to thousands of industrious persons.

Of the direct pecuniary profits arising from the breeding of choice Angora goats, it is only necessary to speak in general terms. It is now universally admitted that those who engaged in the breeding of sheep, when our State was open to occupancy in large tracts, have in almost every instance become very wealthy, with only an average price of twenty cents per pound, and an average amount of yield not exceeding seven pounds. It is equally well established, that the average price of mohair in the English markets for the last fifteen years, has not been less than eighty cents per pound, and at the present date it is ninety cents per pound, while the average yield from pure blood and grades crossed by pure blood bucks, after the fourth cross, is from four to six pounds per year, which shows the difference of value of sheep and goat wool, viz.: sheep, \$1.40; goats, \$3.60; a difference of nearly three hundred per cent. That the relative difference in the prices of these two wools or hair must always be maintained, is as certain and sure as that the price of cotton will never equal or approach the price of silk.

The pelts of one-half, three-quarters and seven-eighths wethers slaughtered for mutton, will, with proper management, become a source of increased revenue. The Angora goats breed as fast as sheep, and require no greater amount of care, while they are harder and thrive well in portions of the country where sheep could not subsist.

Until mohair is produced on this coast in sufficient quantity to warrant the establishment of manufactories, it must be exported to the Eastern States and England; woolen, cotton, silk and other manufactories are established when the production of the raw material is in sufficient quantity for the employment of machinery. But with regard to exportation it is well understood that the higher the price of an article, the better it will bear the cost of transportation.

The point selected and secured by the company for its principal stock ranch is situated in El Dorado county, four miles from Shingle Springs, the depot of the Sacramento Valley railroad, which will guarantee easy and regular communication with all sections of the coast for the transportation of stock; it contains over four thousand (4,000) acres, and can be enlarged as may suit our wants; title, United States patent and possession. A portion of the ranch has the barne, fences, corrals, etc., necessary for the proper and convenient handling of stock. A large tract of land of the company is situated near Lake Tahoe or Lake Bigler, and while it is not necessary to change the range, there is but little question that a heavier fleece and of better quality can be obtained by pasturing on green feed in higher altitudes during the hot months of summer. The nucleus of the flock is of the pure blood and high grades of N. Gilmore, El Dorado county, representatives of which have been exhibited at the different agricultural fairs since 1870, and always have had awarded to them the highest premiums over every other competitor in the State.

Mr. Gilmore has been selected by the directors to superintend and manage the business, and will devote to it his entire time and earnest attention. His acknowledged reputation for integrity and energy, and the zeal and intelligence he has shown in all his efforts in connection with the breeding of Angora goats and the production of mohair, entitle him to the fullest public confidence.

Earnest and stirring addresses on the subject were made by Col. Warren, Col. Cremony, Hon. J. P. H. Wentworth and others, fully endorsing the object and plans of the association, expressing every confidence in its full success, and urging the call for another meeting at an early future day, feeling every confidence that our capitalists would investigate and invest in the enterprise; this was unanimously approved and due notice will be given of the next meeting. In the meantime any persons desiring information on this subject, are invited to call at the rooms of the Superintendent, No. 314 Bush street, room No. 3.

HOW DRAINS ACT.—The water which runs into drains dug in tough clay soil, enters from the sides and the bottom, and not from immediately above the drains. The toughest clay is sufficiently permeable to water to allow it to pass through readily, and after the drains have been in operation some time, regular and permanent water channels become established in the soil leading from above to the bottoms of the drains. In digging drains in tough, compact clay, numerous small veins of water are cut, which show very clearly how readily the water will pass through such soil as soon as outlets are provided. The advantage of the deeper drains is thus explained, and it is readily seen that their influence extends further in proportion to their depth.

TO REMOVE DENTS.—A novel way to remove dents from brass kettles is given by a lady in the *Household*: Set the bruise on soft snow, and with a hammer pound gently on it until the part recovers its proper shape. Won't loose sand answer as well as snow?

PATRONS OF HUSBANDRY.

THE HEADQUARTERS of the California State Grange are at No. 6 Leidesdorff street, in rear of the Grangers' Bank of California, No. 415 California street, San Francisco.

To the Stockholders of the California Farmers' Mutual Fire Insurance Association.

NOTICE.—There will be a meeting of the stockholders of this company on Tuesday, June 1st, 1875, at their office, No. 6 Leidesdorff street, San Francisco, for the purpose of increasing the capital stock to Three Hundred Thousand (\$300,000) Dollars. By order of Board of Directors.

W. H. BAXTER, Secretary.

Secretaries will be supplied with a printed list of subscribers for this paper upon sending a list of their offices within the range of their Grange. Also with blank reports, etc., for clubs.

Grange Directory.—A full list of officers of the State Grange, Deputies, names of Councils, Subordinate Granges, Masters and Secretaries will appear in this department on the first Saturday of each month.

The Great Work of the Order.

The great work of the Order, the grand primary work of the Grange lies in the field of education—education in a broad and general sense, as a moral, social, and intellectual training, and in the development of the principles and practice of everything connected with agricultural industry. These are higher and more vital ends to attain than the mere accumulation or saving of money. It is to be feared that too many enter our ranks out of mercenary considerations, and with but little thought of those ennobling principles which tend to expand the mental vision, improve the moral status, and raise the standard of social advancement.

So long as we keep the true work of the Order in view there need be no fear of failure. We would not discourage safe and honorable means for securing profit in buying and selling through co-operation, in the way of business associations or otherwise; but let us not consider that as the chief end of the Order, or place ourselves in a position where, if our business ventures are not successful, we shall be fain to pronounce the Grange a failure. Let us not endanger the true usefulness of our Order by embarking on all upon the dangerous sea of commercial enterprise. Those who suppose that the chief idea of its founders was to build up an organization whereby the farmers of the country would simply be able to make or save money easier than before, are wide of the mark, and do those noble men a gross injustice. Their ideas were broader and far more comprehensive. They recognized the fact that a comprehensive intelligence and a high moral and social status lies at the foundation of all true and permanent happiness and prosperity. Without such a foundation we can accomplish nothing as a class; with it we are all-powerful. Without it our farms would go to waste, and our business schemes and plans prove failures; with it our farms will improve and become more and more remunerative, and we shall be able to carve out for ourselves a royal highway to success in everything that ennobles and enriches.

Let us, then, first make each Subordinate Grange a school for instruction in all that pertains to our duties as members of society, and as members of the profession of agriculture. We shall then know how to raise the best crops with the least labor, and shall be able to turn them to the best possible account in providing for ourselves and our families the comforts and luxuries of life, of which, as a class, we have been heretofore most unfairly deprived.

Grangers' Business Association.

The Grangers' Business Association of California, which is now doing business temporarily at No. 6 Leidesdorff street, will take up its permanent location, about ten days hence, at the building being made ready for occupation at the corner of Market and Fremont streets. The Association is under the general management of T. J. Brooke, Mr. Geo. C. Pierson acting as special fruit agent. Patrons generally, throughout the State, will no doubt find it to their advantage to forward their consignments to this agency.

By reference to the doings of the Alameda County Council, at their meeting on Tuesday last, as published in another column, it will be seen that the Council fully endorses the establishment of this Association, and urges all Patrons of Alameda county to make their purchases of supplies for house and farm through this agency, and to consign to its care all shipments of farm produce of whatever name or nature.

Omission.—In our issue of May 1, announcing remittances of money, grain, etc., in aid of the Kansas and Nebraska sufferers, the donation of Calaveras Grange, No. 182, was accidentally omitted. The contribution of this Grange was the very liberal amount of 137 sacks of barley.

Alameda County Council.

The Alameda County Council met at Haywards, Monday, May 10th. Joel Russell, M., presided. Every Grange was represented. Important business and educational interests were discussed by Brothers Inman, Shinn, Marston and others.

It was voted, as the sense of the meeting, that the County Council should be continued, and that an adjourned meeting be held on the second Monday in August next, when an election of officers is expected to be held.

Brother J. W. Clark, of Livermore, offered the following resolutions, which were adopted:

Resolved, That we earnestly recommend all Patrons of Husbandry in Alameda county to transfer their commission business to the Grangers' Business Association of California, and that all purchases of supplies necessary for the house and farm, so far as possible, be made through said association, which is now open for business.

Resolved, That we have unbounded confidence in the ability and integrity of the managers of the Grangers' Business Association, and in the thorough business principles upon which the association is established, and in the business ability and fitness of T. J. Brooke, General Agent, and George C. Pierson, fruit agent, appointed by the managers of the association.

Resolved, That from personal observations and from other reliable information of the plans of operations contemplated by the Business Association, and from a knowledge of the business experience possessed by its managers, we have the utmost confidence of the ultimate success of the enterprise for the mutual benefit of both stockholders and patrons.

Proposed Picnic.

The Committees on Picnic from different Granges were invited to act with the council in its deliberations on that subject, and a resolution was adopted, almost unanimously, recommending that a picnic celebration be held at San Lorenzo grove, on Saturday, May 29, provided that each Grange in the county will co-operate. This appears to be a convenient time, between haying and harvesting, in this county. It was ascertained that the grounds could be had free, and that ample and suitable arrangements could be effected for so reasonable a sum as to render an admission fee to the dancing floor, or a direct assessment on the Grange funds, unnecessary.

Bros. Russell and Hellar of the council and Knox of Eden Grange were appointed a Central Committee, to carry out all necessary arrangements in connection with a committee of three members to be appointed by all Granges in the county except Eden Grange.

A fair representation of sisters were present. The meeting was cheerful and harmonious, and by vote resolved itself a committee of the whole to work for a grand picnic. All farmers and their families of Alameda county will doubtless be welcomed by the committee of the festivities of the day, and all Patrons, far and near, should come with their friends and household gods for a day of free and easy joy and liberty.

Letter from Brother Wright.

EDITORS PRESS:—You will be surprised to receive a letter from me at this point. I expected ere this to be with you, and left Alabama for California three weeks ago, but on my way home I have been met with such hearty welcome and kindness by old friends and new, and have had such pleasant opportunities to attend Grange meetings, and share with our brotherhood on the Atlantic coast in the good work of our Order, that I have found it almost unavoidable to linger on the way.

Learning of the interruption of travel on the Union Pacific railroad for the past ten days, I have preferred to spend the time with friends here instead of on the cheerless plains beyond Omaha.

On the journey, I have had the pleasure of attending Olney Grange in Maryland, the Subordinate Grange presided over by Bro. Joseph T. Moore, Master of the State Grange of Maryland. Of this and other meetings, I shall try to write you more fully in future. I spent two or three days most agreeably around our headquarters of the National Grange at Washington. Here I enjoyed meeting most of the very worthy and deserving founders of our Order, and Bro. T. A. Thompson, worthy Lecturer of the National Grange. With him I enjoyed the pleasure of attending a called meeting of Delaware State Grange, which Bro. Hamilton organized before his recent return to California. In Philadelphia I visited the Centennial grounds of which I shall write you more. The commissionera inform me agriculture and horticulture shall receive the attention they merit. Here in New York city I shared with Bro. Thompson his official visit to Knickerbocker Grange, 154. I shall start this evening for San Francisco, and shall probably not stop at more than three points before reaching there. I regret this delay in reaching California, as there were many reasons why I wished to be home before this date.

Yours fraternally, J. W. A. WRIGHT.
New York City, April 27, 1875.

ALLIANCE GRANGE, No. 75.—The Secretary of this Grange, Mr. T. W. Marshall, informs us that on May 1, the fourth degree was conferred on a class of candidates, after which they partook of a bounteous harvest feast.

NEW GRANGE.—Deputy O. L. Abbott on April 28th organized the Louppee Grange, Santa Barbara county, with thirty charter members. Wm. Jackson was elected Master and W. W. Boughton, Secretary.

From the Granges.

Cold Spring Grange.

EDITORS PRESS:—It is not often you are troubled with correspondence from this section, and the thought occurred that a few lines from this locality would be of interest.

First let me say, that our climate is equalled by but few localities in the State, and surpassed, we think, by none. All those who have ever visited our county and remained in it any length of time will bear me out in the above assertion. But the fact is, you will hardly find any that know anything about our surroundings, who are not willing to acknowledge the desirableness of our climate.

But like all other places, we have our drawbacks and impediments. Some of these impediments by industry, economy and perseverance may be overcome. Others are climatic and must be borne. Farmers throughout the county are mostly in what would be termed easy circumstances. Some are thrifty, others are pulling hard to make both ends meet; this class are, however, greatly in the minority. This locality, say twelve or fifteen miles square, is principally devoted to the growing of fruit, of which much might be said. But as this is not intended for a puff, I will simply say that having been engaged in the business for fifteen years, it will pay. I would not convey the idea that our climate and soil are not adapted to anything else but fruit; the cereals and vegetables of every description and variety grow and do well here. Ordinary seasons, on ground summer fallowed and seeded early, we get from fifteen to thirty bushels of wheat per acre; this we consider a very fair showing, and not at all damaging to our reputation as a grain growing district, or the capability of our soil, if properly managed.

Just at the present time there seems to be great interest manifested in regard to the immigration that is pouring in upon us. What are they to do and where will they go?—are pertinent questions and of very deep interest to those who are seeking homes on the Pacific slope; undoubtedly there is room enough for all that may come, but this does not answer the question.

I am glad to see and know the interest manifested by the Patrons of this State in their fellow Patrons and collaborators that are coming among us. The Grange can do very much toward helping the new comers to help themselves. The Grangers of this county are discussing this matter. It is to be hoped they will take some action in the premises soon. We have five Granges in El Dorado with an aggregate membership of two hundred and fifty. The Order is well established and the membership are alive to the objects of the fraternity. At present a move is on foot for the formation of a county council or agency. We feel very much the need of some regularly constituted channel through which to transact our business. We have reason to believe the object sought would be accomplished by the formation of this council.

J. G. O.
Cold Spring, El Dorado county, April 29, '74.

Borden Grange.

EDITORS PRESS:—On April 24th the Borden Grange met and conferred the fourth degree on one brother. We then enjoyed our first harvest feast and I wish I could picture it out to you as I then saw it; but as I am a poor hand to draw pictures I will only say that it was really enjoyable, perfectly delightful, with a full attendance, and all appeared so bright and happy that it was to me a great treat to witness such a scene, and when the baskets and boxes were brought forward, so abundantly filled with such things as our good sisters alone know how to prepare for the coming sharp appetites. After the feast was over, the Grange called in order, we elected Brother C. T. Badger Secretary, Brother J. B. Fontain having resigned.

E. S. R.
Borden, Fresno county, May 5, 1875.

Petaluma Grange.

EDITORS PRESS.—We had a rousing gathering on the 8th instant, on the occasion of a visit from the Master of the State Grange, J. M. Hamilton, who gave us instruction in some new things, and corrected us in many old ones. A large class took the fourth degree and enjoyed a grand harvest feast. Only one thing was lacking—we had no time for a social dance. The rain on the night of the 7th damaged some crops a little, but will help others very much. The grain and hay crops will be below an average.

F. PARKER, Sec'y.
Petaluma, May 10th, 1875.

New Castle Grange, No. 241.

EDITORS PRESS:—I have noticed that for two months past you have, unintentionally, no doubt, omitted the name of New Castle Grange, No. 241, from your "Grange Directory." I write to inform you that we still live and are progressing slowly. We have a harvest feast May 22d, when we are to confer the fourth degree upon two young ladies. Our officers are to be installed upon the same occasion. Our Master is John C. Boggs, and Secretary, Your humble servant,

B. PREWITT TABOR.
New Castle, Placer county, May 9th.

[Of course the omission was unintentional, and corrected in the Directory for June.—EDS. PRESS.]

Don't Make the Picnic a Task.

Don't sweat and worry over the preparations, striving to see who can produce the richest cakes and pies and highest grade chickens. Plain food and plain clothes are best suited to such occasions. This striving for display has a decided tendency to check the free and easy spirit that is really the soul of the picnic. Don't "fix up" the children too elaborately, for they will be sure to roll in the dust, and may possibly make you cross and nervous. These admonitions are not intended for the exclusive benefit of the sisters; possibly the brothers may derive benefit from them. Don't feel that the picnic day will be a day lost; for it will be even more than a day of rest; it will furnish a hearty stimulus to labor, and the boys and girls will work enough better to soon make good the apparent lost time; and old and young will live longer for having a little jollity mixed with serious life.

When you come together strive to become acquainted as much as possible, or rather throw aside all social restraint and dispense with formality altogether, and we shall soon become acquainted without striving.

Try to make others happy and you will be happy yourselves. Take things easy and this will make others feel easy. Let us not hurry at our picnics as we do at our work. In short, don't allow anything to deprive it in the least of its real character—a truly family affair.

The Kansas and Nebraska Sufferers.

The following letters explain themselves:

W. H. BAXTER. Worthy Brother:—Yours of the 13th, 14th and 21st, containing exchange for \$40.50 and \$56.02 and \$63.35 is just read. Tender our many and sincere thanks to donors for same. Our brothers and sisters in Nebraska are only in need of seeds now, and we hope in a few weeks to supply their wants. Your contributions are the largest that came from any State. With the hope that your future is bright, I am yours fraternally.

W. B. PORTER, State Master.
Plattsmonth, Neb., April 30.

W. H. BAXTER—Worthy Sir and Brother:—I have the pleasure of acknowledging the receipt of two drafts from you—one for \$34.09, and one for \$56.02. Please accept the gratitude of our Patrons for this timely aid. We are doing all we can to procure seed for planting for those who are destitute. And I am glad to be able to say that through the kind liberality of our brothers and sisters of other States, we are meeting with good success. I have the honor to be yours, fraternally.

M. E. HUDSON.
Mapleton, Kansas, May 4.

In Memoriam.

EDITORS PRESS:—By order of San Jose Grange you are requested to publish the following obituary resolutions:

WHEREAS, It has pleased an all wise Providence to remove from our midst a loving wife and a sister of our Order, Mrs. S. E. BRALY; and whereas we the members of San Jose Grange are desirous of testifying our respect for the deceased, and expressing our sympathy with her bereaved relatives and friends; Therefore

Resolved, That in the death of Mrs. Braly society has lost one of its most faithful and efficient members.

Resolved, That with our own hearts full of sorrow for the untimely loss of our sister, we offer our tenderest sympathies to her husband and friends, to whom her loss will be a deeper sorrow. May God comfort and support them in their affliction.

Resolved, That these resolutions be entered upon the minutes of the Order, and a copy presented to the husband of the deceased.

Resolved, That the Secretary be instructed to furnish the RURAL PRESS with a copy of these resolutions for publication.

Sisters H. C. PAINE,
EMMA BARNES, } Com.
EMMA FARNWORTH,
RUFUS FISK, Sec'y.
San Jose, May 8th, 1875.

In Memoriam.

EDITORS PRESS:—Bro. Wiley S. Jones, a member of Pomo Grange, died of paralysis on the 16th of April, 1875, and was buried in the form of our ritual. At a meeting of the Pomo Grange, No. 216, the following "preamble and resolutions" were adopted:

WHEREAS, It has pleased our Heavenly Father to call from time to eternity our Brother, WILEY S. JONES.

Resolved, That in the death of Bro. Jones we have lost a faithful brother and the community a good citizen, the church an upright member, and his family a devoted husband, father and grandfather.

Resolved, That we extend to his bereaved family our heartfelt sympathy in this their sad hour of affliction.

Resolved, That as a mark of fraternal respect we will wear the usual badge of mourning for four weeks, and that a copy of these resolutions be sent to his family, to the Healdsburg Flag and to the PACIFIC RURAL PRESS.

B. PEMBERTON.
April 24, 1875.

NATIONAL GRANGE PROCEEDINGS.—We have received the report of the session of the National Grange, comprising 144 pamphlet pages. It has much important information for Patrons. An appendix contains some decisions which we shall quote hereafter, probably with other extracts of general interest.

HORTICULTURE.

Roses and Roses.

The queen of flowers is holding her court. Her real name is Rosa Lamaque, but her manifest royalty forbids any word but queen. She is fairest, purest, sweetest, not girlishly but full womanly, as befits a queen. But her maidens are also fair, royally she rejoices in their praise, these we can name, and we love the names, even, of those we love well, so let us look at *Souvenir d'un Ami*, pale, flesh colored, with a deeper tinted center, and at *Reine blanche*, pearl colored, with the faintest blush. It is a good time to get acquainted with all the peculiarities of roses. The budding time is near at hand, and hundreds of ladies who read the Press will wish to add to their collection if they can only be persuaded to take or steal time to attend to it at the right moment. Mrs. Moore, who budded roses as deftly and almost as fast as a professional, is over in Paris, where so many of the finest fancy roses had their birth, and as nothing escapes her sharp eye for beauty, she will have much to tell us on her return of new sorts. Perhaps she will be able to tell us how to keep away the mildew. Meanwhile, dear readers of the Press, notice the dark rich crimson of Duke of Edinburgh rose, of John Hopper, which glows like a good deed in a naughty world, of Horace Vernet, and above all, of General Jagueminot. Enjoy the creamy whiteness of the unspoiled Cherokee, and huddle its long runners with other climbing kinds if your space is limited. You may bud in deep colors and let the lower sprays run another season the crop of new roses will be spare but fine. General Jagueminot is a glorious rose to burst out of a cloud of white roses.

Again, it is time for the amateur lady gardener to experiment in hybridizing roses. It is always right to reach forward, and who knows but the perfect rose is to flower for us. Madame Laffay is an honest old maternal rose, who is always trying to run back into a sweetthorn; try crossing it upon Cherokee, or the latter with Marshal Neil. I used to raise in the East the finest moss rose I ever saw—Henri Martin, one of the deepest colored, most velvety and abundantly mossed.

I like copper colored roses, those that take the metallic lustrous, and are now so much the standards in artificial flower making. Old Regulus is one of the best of these. The nomenclature of roses is a good deal awry on this coast, or else in the East roses had outgrown the habits of their early years; I judge this is so, because Eastern experts speak of incorrect or varied nomenclature as well as myself. The habits are very likely somewhat altered with the change of climate and condition.

Banksia roses here are truly "the right roses in the right place." Nothing could be more perfect for planting on the edges of banks and ravines. They like to make believe they are wild raspberries or blackberries. They live to great age; they grow immense stocks, there is one at Toulon two feet four inches in circumference, which covered a wall seventy-five feet wide and eighteen feet high, and had sixty thousand flowers blossoming at once. I have not seen the rose-colored Banksia here.

Gather about your homes at least a dozen good roses, climbing, perpetual, teas and mosses. Don't expect to get "every dingle in one rose," as the Dutch gardener said. "I have so much trouble mit de ladies vot come to buy mine rose. Dey wants him hardy, dey wants him fragrant, dey wants him moonlight, dey wants him doubles, dey wants him fine color; and I says, I often seen dat ladies dat vas rich, dat vas young, dat vas wise, dat vas handsome, dat vas good temper, dat vas perfection in one ladies, I see her much not." She is coming, though; but she will love a garden, and so will her young man.

JEANNE C. CARR.

We have not half enough "lily wisdom" on this coast. I had tamed every wild lily east of the Mississippi, before I came here to find the most magnificent wild lilies I ever saw. Success in growing these depends upon deep planting, shade and water. We can have lilies from the first of May to September.

I have found the ants troubling my lily bulbs; they contain sugar and starch, and these little pests had discovered it. They will consume a bulb in an incredibly short space of time, cutting off scale by scale.

J. C. C.

The Vallejo Chronicle of the 5th says: We understand that the rain around Benicia did more good than harm to the crops. The late sown grain, as a general thing, was too far gone to be benefited, but it helped the volunteer and summer fallowed."

The Lassen Advocate chronicles a heavy rain of three hours on the 6th inst. and a slight frost the next night, which latter, however, did but little damage.

According to the Los Angeles Herald the grain crop in that county is doing well, particularly those fields which did not head out early.

AGRICULTURAL NOTES.

California.

ALAMEDA.

FAVORABLE REPORT.—Oakland Transcript, May 7: Reports from all portions of Washington township, Alameda county, are of a favorable character for an average good grain crop. The late cool weather has been of great benefit, placing the prospects of a fair yield beyond all contingency.

CALAVERAS.

COOL, BUT NO RAIN.—Chronicle, May 8: The weather during the greater portion of the week has been cloudy and cool. Indications of rain have been plentiful, but the anticipated moisture has not yet fallen. All signs fail in dry weather, you know.

THE HAY CROP.—From same: Several farmers in this vicinity have commenced cutting their hay. So far as we can learn the crop will be about an average one in the higher range of the foothills, but lower down the yield will be light.

COLUSA.

AN OPINION.—Sun, May 8th: A gentleman who has recently been around through Sutter, Yuba, Yolo, Solano, Napa and Sonoma counties, says we have a better prospect for a wheat crop than any of them.

THE BEST WHEAT.—From the same paper: We have been shown a letter from one of the largest distilling and refining companies at San Francisco, stating that they had been experimenting on the wheat for distilling purposes, and find that the wheat of the upper part of the valley is the best for this purpose, and that the company will want to purchase six or eight thousand tons of wheat in this county of the coming crop.

CONTRA COSTA.

FAVORABLE WEATHER.—Gazette, May 8th: The weather for the past week and for several preceding weeks, has been of the most favorable character, in the absence of rain, for preserving and promoting the growth of grain crops, which now in this section generally give promise of fair yield, should we escape hot weather and northerly winds for the next three or four weeks—as we may, though we shall be exceptionally fortunate if we do. The grain about Antioch and Point of Timber has shared the benefit of the favorable weather, and much of it is promising well; but further along on the west side of the San Joaquin, and even on the east side, the crop is certain to be very light where there is any at all.

KERN.

A PROLIFIC YIELD.—Courier, May 8: Most of the country papers throughout the State boast with great apparent satisfaction that they have in their respective localities a half, third or fourth of a crop, as the case may be. We, of the Kern river valley, boast, as we have always been able to do, a full crop—in fact, as a general thing, the utmost limit of a prolific yield will be reached.

LAKE.

LIGHT CROPS.—The season is now far enough advanced to enable us to determine definitely that the crops in this county will be light. At seeding time the weather was very favorable for the purposes of the farmer and an unusually large breadth of land was sown to grain, so that perhaps the total yield will equal if it does not exceed that of previous years. The volunteer crops being almost a total failure, the amount of hay produced will be much less than was yielded last season, and as a large portion of last year's crop was held over, the price of this article will not be much enhanced.

MARIN.

HAY AND GRAIN.—Journal, May 8: Mr. John McCa. Brown tells us that the feed on the San Antonio is getting pretty short and dry, but the dairymen are doing first-rate nevertheless. This has been decidedly the best butter season he has ever seen in that section, many dairymen having averaged a pound and a half per day to the cow for several weeks, while one pound per day is considered an excellent average. The hay crop is good, and many are already cutting. The early sown wheat and barley will do well, except on some low spots, where it was injured by frost. The volunteer oats, which often yield a profitable crop of hay, are dried away so that they will not pay for cutting.

RAIN WANTED.—From same: We have conversed with Messrs. George Bunn, Robert Bayley, Dr. Dutton, T. J. Ables, W. Dutton and others from Tomales, and we gather that the feed thereabout is unusually short, and the hay crop will be almost a failure. Rain would help everything there.

THE DAIRY.—Mr. H. Claussen, of Point Reyes, milks 170 cows, from which he is at present making 180 pounds of butter, and 300 pounds of skim milk cheese daily. This cheese is worth nine cents per pound, and Mr. Claussen thinks it more profitable than pork. He has 200 cows on the old place, his father's, and is milking 175.

MERCED.

GOOD SAMPLES.—San Joaquin Valley Argus, May 8: We were shown this week samples of grain from the farms of Messrs. Atwater, Carroll and Huffman, raised upon summer fallowed land, that will compare favorably with grain raised upon good soil in favorable seasons. One of the samples was barley from the farm of P. Carroll, the head being long and well filled with plump grains.

MONTEREY.

FARMERS ENCOURAGED.—Salinas City Index, May 7: The farmers in this section have no cause to be discouraged. From present prospects they will do as well this year as last. They will not have as much grain, but will get better prices. The heavy fogs which have prevailed have been as good as rain to the growing crops, and they have been continually improving, until now they look well and promise a fair yield. The haying season has commenced in this section, and already much hay has been made. The yield is not so large, but enough will be made to at least supply the local demand.

NEVADA.

BLASTED WHEAT.—Transcript, May 4: Jonathan Clark showed us some heads of wheat, yesterday, picked by him last week, from wheat fields between Wheatland and Nicolaus, and says they are samples of most of the growing grain in that section. About half of each head is blasted. The heavy frost about a month since is what did the work. The heads were then in what is called the "hoot," and the tops being somewhat more exposed were nipped by it, and the result is the upper part of each head is blasted and turned white. The growth is heavy enough for a good crop, but for this blight.

MORE MOISTURE NEEDED.—Foothill Tidings, May 8: No rain yet, though the best indications in the world thereof were held out several days this week. The indications are pretty good—as the sun is obscured, the air moist and crops are thereby enabled to keep up a pretty good growth—but a soaking rain is needed to carry everything through right.

PLACER.

HOW HE SAVED HIS FRUIT.—Herald, May 8: The trees in Silva's orchard, Newcastle, are loaded down with fruit. The night of the heavy frost, that played such havoc with the fruit crop throughout the country, he built big brush fires on the windward side, and thus tempered the atmosphere that spread over his orchard sufficiently to save his fruit.

EARLY GRAIN.—From same: In some sections of the valley portion of Placer county the early grain will mature into nearly an average yield, though the reports from the late grain are rather discouraging.

SAN JOAQUIN.

NO FAILURE.—Stockton Herald, May 7: The crops in the northern part of the county are by no means a failure. Near Acampo, the farm of J. N. Woods is estimated will yield an average of fifteen bushels of wheat to the acre. That part of the county has never failed since its settlement of having crops. Even in 1864 those who sowed grain in that part of the county reaped grain. That portion of the county is visited with dew more plentifully than elsewhere in San Joaquin, probably from the fact, as suggested by Mr. Woods, that its situation is such that Mount Diablo nor the Coast Range either, obstruct the west wind that flows through the Golden Gate and reaches that vicinity more or less laden with dew.

SOLANO.

LOOKING WELL.—Vallejo Independent, May 7: The grain in the vicinity of Vacaville is looking very well, especially the summer fallowed. The fruit crop is unusually large this year in that vicinity, and cherries are coming in fast. Grain in the vicinity of Suisun looks well. A continuation of the present cool weather will help to develop it materially. The wheat crop will not be as heavy as usual, but the barley crop will be heavier.

SONOMA.

GOOD PROSPECTS.—Petaluma Argus, May 7: An old resident of Bloomfield who is a close observer, informs us that the prospect for good crops of all kinds in that locality is fully as good if not better than usual at this season of the year. Some of the oats in the vicinity of English Hill are somewhat affected by rust, but as yet it does not appear that the damage will be serious.

LARGE YIELD EXPECTED.—From same: Judge Payran has 60 acres of wheat and barley adjoining this city on the northeast, which he considers the most promising crop he has ever had at this season of the year. The wheat bids fair to yield 60 bushels and the barley from 80 to 100 bushels per acre.

STANISLAUS.

BETTER PROSPECTS.—News, May 7: The cool weather of the past two weeks has had a most happy effect on the prospects of the growing crops of this valley. The grain has freshened up and looks much better than could have been expected under the circumstances. Many farmers who a short time since thought all was lost, are now hopeful of reaping half a crop, while those who were hopeful of a half crop now believe they can secure two-thirds. Some fields, however, will be very light, if harvested at all. Much depends on the weather during the present month.

TULARE.

WHEAT MAY BE EXPECTED.—Times, May 8: A number of farmers in the vicinity of Mussel Slough are engaged in cutting hay. The wheat and barley are very short in many places, but will make good hay. Those who got water in time will raise a fair crop. There will be a sufficiency of grain raised throughout that vicinity for home consumption. A quantity of beans, potatoes and other vegetables will be raised along the line of the ditches. Some of the farmers have sown flax that appears to be doing well where they can get water to it.

YOLO.

A GREAT IMPROVEMENT.—Democrat, May 7: On Tuesday last Sheriff Barney of this county had occasion to ride a circuit of 40 to 50 miles through this county, and in conversation with him since as to the prospect for crops he reported to us a very great improvement. Along the west side of the valley the wheat is looking splendid for miles continuously. In many instances the prospect is good for the best yield ever obtained. Many fields that three weeks ago were thought to be past hope will probably yield half a crop, and scarcely any was observed but what will yield from one to two tons of hay to the acre, worth \$10 per ton. Mr. Barney's idea is that we will have fully two-thirds of a crop, and if the weather continues favorable till harvest time—two or three weeks—Yolo county will yield as much grain as last year.

ANOTHER VIEW OF THE CROP PROSPECT.—Mail of the same date: The wheat fields have become green from evening dews, and much of the wheat which was given up as the victim of northern blasts, now promises well. Should no rude winds visit us, we are assured that, on an average, Yolo county will yield at least a two-third crop. The most depressing news may be heard among business men, but the farmers appear hopeful.

SPECIMEN WHEAT.—From same: We have in our office a bunch of Chili wheat, and a few stalks of Sonora, taken from the fields of T. B. Hurlburt, on the red lands near Plainfield. The former is 160 acres of summer fallow, and is about four feet high, and will yield, without either rain or north winds, at least thirty-five bushels to the acre. The latter is 80 acres of late sown, and Mr. H. says has had no rain since it was sown. It will yield upward of twenty bushels to the acre.

Oregon.

THE FRUIT CROP.—A correspondent of the Call writes from Salem: The prospect for an abundant fruit crop was never better than now. Little attention is paid to fruit—it literally cultivates itself, and never fails to be first-class, both in quantity and quality. A want of market heretofore has made the fruit of little value, but new methods of drying and preserving are stimulating fruit-growers to look after their crops with more care. There will be a large yield of all kinds of fruit indigenous to the climate.

Agricultural Items.

HAYING, says the Placer Herald, is now going on quite lively in the valley. Owing to the recent continued dry weather the crops are in most cases quite light.

FARMERS in this section, says the Sacramento Record, begin to feel more hopeful about their crops, owing to the recent cool weather and the dew falling nightly.

IN the opinion of the Marysville Appeal, there will be half a crop of grain in Yuba and Colusa and three-fourths in Butte and Sutter.

THE appointments of squirrel district inspectors have been revoked by the Contra Costa supervisors.

THE Tehama county People's Cause states that the farmers of that section hope to realize more than half a crop of grain.

A LETTER from Biggs, Butte county, reports that the crops in that section are looking favorable.

THE Colusa farmers are to have an irrigation meeting on the 22d inst. to devise means, etc.

THE grass is short on Tamalpais and the hay crop will be light.

CHERRIES are ripe in Auburn.

General News Items.

A BANK under the control of Flood & O'Brien is to be started in their new building, corner of Montgomery and Pine streets. The capital of the institution will be \$10,000,000.

LEE AH CHU, convicted of the murder of the boy Axtel in this city, has been sentenced to be hanged on Friday, July 2, between the hours of 12 noon and 3 P. M.

THE American rifle team have accepted the tender of a free passage from the Inman company, and will sail for Ireland on the City of Chester early in June.

A COLLISION occurred between two freight trains on the C. P. R. R. last week, by which a brakeman was killed and a conductor severely injured.

JOHN H. BURKE, a resident of this city, dropped dead in an Oakland car last Sunday.

THE clipper ship Three Brothers has beaten the British King to Liverpool.

Coming Fairs and Exhibitions.

[Officers of industrial societies will please inform us their approaching fairs and exhibitions.]

Twenty-second annual fair of the California State Agricultural Society, to commence on the 15th and end on the 25th of September, 1875, at Sacramento.

The Centennial International Exhibition, at Fairmount Park, Philadelphia, will open on the 19th of April, 1876, and close on the 19th of October following.

International Exhibition of Chili, Santiago, will open nominally August 15, 1875, continuing until April 2, 1876. Officially from September 16, 1875, to January 1, 1876. Articles for exhibition may be entered at any time from the 15th of August to the 15th of September and can remain on exhibition if the exhibitor so desires until the 2d of April following.

Tenth Industrial Exhibition of the Mechanics' Institute of San Francisco, commencing Tuesday, August 17, 1875, to continue open at least one month.

American Pomological Society, Fifteenth session, at Chicago, Wednesday, September 8, 1875, continuing for three days.

The Alabama State Grange Fair, at Selma, Alabama, Tuesday, October 26, 1875, continuing five days.



The Coal Imp.

I was sitting one night by my fire—
"Twas a fire of Westmoreland coal
With a mixture of coke which I recommend
As a comfort for body and soul.

My chamber was cosy and warm;
The curtains were closed all around;
And the snow at the windows settled away
With a soft and tinkling sound.

As I sat in my easy chair,
I think it had got to be late;
And over the top of my book, I saw
A face in the glowing grate.

An ugly old face, too, it was—
With wings and a tail—I declare;
And the rest was ashes and smoke and flame,
And ended I don't know where.

So queer were the features, I said
"I must put you on paper, my friend;"
And took my pen and jotted him down—
Face, wings, and wriggling end.

A queer old codger he seemed,
As vaguely he stared and shone;
But I fixed him in outline as well as I could
And added a touch of my own.

He flapped his wings in the grate,
And struggled and puffed to be free,
And scowled with his blazing carbuncle eyes
As if he appealed to me.

Then I said—but perhaps I dreamed—
"Old fellow—how came you there?"
"I am not an old fellow"—the face replied,
"But a prisoned imp of the air."

"In the shape of combustion and gas
My wings I begin to find out;
So I flap at the bars and grow red in the face,
And am ugly enough, no doubt.

"I am made for a much better lot;
But I cannot escape as you see;
Blistered and burnt and crammed in a grate,—
What could you expect of me.

"I once was a spirit of air,
A delicate fairy page
Long, long ago—in fact, before
The carboniferous age.

"For centuries I was kept
Imprisoned in coal-beds fast;
When you kindled your fire this evening, you see,
I thought I was free at last.

"But it seems I am still to wait;
No wonder I'm cross as you see;
Make faces and flutter my wings of flame,
And struggle to reach the air."

"My ruby-faced friend," I said,
"If you really wish to be free,
Perhaps I can give you a lift or two,
It's easy enough. We'll see."

Then, taking the poker, I punched
A hole in the half-burnt mass—
When the fire leaped up, and the imp flew off
In a laugh of flaming gas.

—C. P. Cranch, in *St. Nicholas*.

Education of Young Women in Agricultural Colleges.

We recommend the following clear and lucid presentation of the new education for women in colleges and universities provided for by the State and National governments to the editors of the *Berkeleyan*. It is written by the President of the Kansas State Agricultural College, Rev. J. A. Anderson, for some years a clergyman in California and not a granger. The objective point aimed at by him is the graduation of competent industrialists, male and female, not of male or female scientists and literati. He disclaims all intention "of flying a literary kite with an agricultural tail," which he "believes has not a cent of money in it for the industrial student, whose estate pays for the kite."

To furnish an education that will prepare the girl to follow some industrial vocation is clearly the main purpose and chief function of this institution so far as females are concerned. It was endowed by Congress "to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life;" and the whole act, as well as the debates, shows that not "the learned" but "the industrial" professions were intended, and that the design was not to educate the industrial classes into general knowledge, but into such knowledge as is most valuable to them in the practice of their industrial callings.

When the Legislature, in view of the fact that both females and males engage in the industries of the State, decreed that the benefits of the endowment should be offered to both sexes alike, it merely declared that the design of Congress in creating the institution should be executed for both, because the relation which the Legislature holds to the grant is simply that of a trustee who, voluntarily accepting the trust, becomes legally bound to employ it for the purposes and under the conditions specified by Congress as the grantor. It has, therefore,

no legal power, either by its own act or that of any agent which it may appoint, to make such a use of the fund arising from the endowment as will either defeat, pervert, or fail to accomplish the expressed will of the grantor. The furnishing of what is usually termed a "literary" or "highly finished" education, designed to prepare "the accomplished woman" for her life of elegant leisure, would evidently be such a perversion just to the extent that her life differs from that of the woman who works as an industrialist. However desirable it may be that Hortense should have a training especially qualifying her to amuse Charles Augustus with comedy, song and the poetry of intellectual motion, Congress did not create agricultural colleges for that purpose. It had previously endowed the many State universities for her benefit, which provide a course generous in Latin, Greek and polite literature, liberal in the purest of pure sciences, and garnished with the rarest blossoms of the hot house arts. In granting a new and wholly different endowment, "in order" to make the industrial workers "fit for doing industrial business," it by no manner of means intended to duplicate the universities, for had such been the intention the word "professional" would have been substituted for "industrial," and Congress itself would have consolidated this endowment with that of the universities. The fact is it had turned from Hortense, already so generously provided for, and was making a grant for the especial benefit of Mary, Martha, Susan and Jane, and it enjoined the trustees to aim directly, fully and fairly, and to endeavor wisely, honestly and vigorously to put these girls in actual possession of such knowledge and skill as would enable them to earn the most money in the easiest way by intelligent labor.

We admire Hortense, and from a distance most respectfully contemplate Charles Augustus. It is delightful, on commencement days, to mingle with the numerous and influential friends of their respective fathers and listen to orations, great in power and glory, which describe the educational duties feasted upon by the young couple, praise their remarkable appetites therefor, and predict the future greatness they must inevitably attain because daily "fed on Caesar's meat." Hortense is so charming and happy, Charles Augustus so strong and self-restrained, the influential friends so beaming and the fathers so radiant that all of us concern in the absolute necessity of instantly providing yet more generously for their education. And as we roll away in easy carriages the air seems more balmy with perfect content, the moonbeams brighter with promise and the mellow earth more luxuriant in hope than ever before. But there are other scenes in cities. Why do Marys, with calloused fingers, pale faces and wearied frames hurry past us from the workshop to the attic? Why do we hear of widows toiling from dawn to midnight and from the day of their widowhood till death cuts the thread of toil and the grave folds away the garments of labor? Why are there any orphans forced by the gnawings of hunger to meekly endure the scorn of companions, the buffeting of adults and the avarice of Shylocks,—little ones whom even God seems to have forgotten, whose pinched souls grow faint in the struggle for just enough bread to keep the cords of life from snapping? Why do crops fail, why do employers discharge workmen, and why does the resulting poverty so fetter the hands of industrious fathers that, though from the very core of great hearts intensely loving their daughters and sons, they are powerless to give them a professional education?

Nevertheless, neither the good God nor the American nation has really forgotten those classes who work with their hands; and while endowing the universities to educate Hortense, with others, the American Congress doubled the endowment for the industrial education of Mary, Martha and Jane. The two educations are, and must be, as different as is the labor of cooking a dinner different from the pleasure of eating it, or as is the toil of a seamstress in making a shirt different from the comfort of him who wears it. From this standpoint the attempt upon the part of the agricultural colleges to educate Mary as the universities educate Hortense is a perversion of the design of the grantor which neither legislatures nor their agents have the legal or moral power to permit. And in those States where the two institutions are separated, as much as all may desire to add the ripest of literary strawberries, the richest of intellectual cream and the sweetest sugar of all the graces to the educational repast spread for the fortunate Hortense, from our standpoint the proposition to pay for these by taking the endowment of agricultural colleges, though grateful to tax-paying pockets, looks so remarkably like square, strong-handed robbery that the working classes, the friends of Mary and Tom, might not be able to see that it is not; might not perceive the distinction metaphysically apparent to the acute minds of the influential friends of Hortense and Charles Augustus; might regard such a proposition as a political "gobble" and be disposed to furnish election tables with the gobblers roasted to a turn. There may be exactly such a danger, as is shown by the mutterings of the industrial journals all over the land; and, somehow, the proposition looks as if it were not exactly manly, honorable or just, and as if its execution would defeat the design of the grantor, who, in giving the money, certainly had a right to designate the object of its expenditure.

In determining the studies taught, the mode of teaching, and the facilities afforded by the female department of an agricultural college, the controlling purpose must be that of making

the girl an intelligent and competent industrialist. Any other attempt or any unreasonable failure to accomplish this purpose is a virtual breach of trust, quite as marked and great as would be that of sinking the education of farmers under the fathomless waves of a university course directly designed for the training of lawyers or preachers. And if it be objected that such a view limits these institutions to the single function of teaching the girl a trade only we reply that the female industrialist, being a woman both before and during her industrial work, has an inalienable right to a woman's education as contemplated by the first group; that being, to say the least, as much of a woman as the one who lives on the labor of others, she has as great a right to an education directly adapted to the performance of industrial work as has the latter to one which is not; that, since all such work requires the use of both mind and body, her education must include both mental and physical training; that, in view of her womanhood, it must regard the strong probability of her marriage, and, therefore, of her need of such mental training as will best prepare her for the mental work of the wife and mother, who, just because she is also an industrialist, not only requires the mental culture of wives who are not, but, in addition, all the knowledge that is really useful in ensuring the greatest profit to her labor; that her education is to be "liberal" as well as "practical" and that the degree of liberality allowable in her mental training, is just as great as that allowable in the training of any other woman.

Purity in Boys as Well as Girls.

The way some parents have of talking and thinking that boys do not need to be treated as gently and considerately as girls, is productive of wide-spread mischief. If we treat children as it they were honest, truthful, pure minded, if in all our intercourse we appeal to their highest feelings, if we expect nothing which is not respectful and noble of them, we shall keep a high standard before them. We should, in look and word, carry ourselves so they will feel sure we have no thought or suspicion of anything low or mean. We do this in our treatment of girls; and is that not one reason why they are purer and nobler, because they are shielded from wrong, so hedged in from things that are vile.

Boys are spoken of, and to, as if they were expected to be rude and unmannerly. I notice even Sunday-school superintendents speak harshly and severely to the boys, when the girls are whispering and making quite as much noise and no notice is taken of it. Would it be so, think you, if the mothers were superintendents, instead of the fathers? I think not. Mothers have as keen a sense of justice toward their boys as toward their girls. The sense of justice in small boys is hurt by such treatment; but soon they learn to shield themselves behind the feeling, there is no use trying to behave well, nobody expects it of boys. Thus little by little the standard of excellence and delicacy, which they have until they have got beyond childhood, is marred and destroyed. Even mothers comfort themselves by saying: "Boys must come in contact with the world," meaning with other boys and men, who have had their best impulses blunted and seared by just this same process, until to be manly does not imply all that is grand, noble and true in a human being.

The standard of manliness in heroes and poets is not the one we find as we mix and mingle in this busy world—exceptions there are enough to prove the class not extinct.

How many thousand hearts have ached, and are aching, because their idols are all broken. This ought not so to be. Men should be as pure, as clean, as noble and as high-toned as women. There is no way to make them so except to begin with the boys. As long as our boys must go to an unclean closet in the yards of our academies, and are shut out of all the best places, and treated as if they were culprits, so long will they be just what they are; which is largely the result of their training. Until a different course is pursued we shall have bad boys and bad men. If society was anxious to have them bad, it could not devise a surer way of doing it. Make the standard for the boys as high as for the girls. If this could be done for fifty years the millennium would be dawning.

The standard for men and women should be just where God put it—just the same.—Mrs. M'Cune, in *Herald of Health*.

A FASHIONABLE RECIPE.—Take a young woman, and turn her once in a breadth of satin, twice in a gauze scarf, and three times in a puff of tulle; add twenty yards of flowery garlands, wherewith to season the whole. The dish is then trussed up, but has not yet sufficient dressing. Something heavy—in the shape of a train—is needed. It may be made of matelasse, with raised flowers, or of brocade. Skewer it on well behind, and garnish with gauze butterflies, lace birds, or gilt beetles. Keep very warm at the base and very cool at the top. Remove the dressing as much as possible from the upper part, and pile it on below. Season with diamonds and serve up warm.

LOVE OF COUNTRY.—A Western stump orator, in the course of one of his speeches, remarked: "Gentlemen, if the Par-y-fix ocean were an ink-stand, and the hull clouded canopy of heaven and the level ground of our yearth were a sheet of paper, I couldn't begin to write my love of country onto it."

The Human Beard.

Physiologists generally agree in the fact that every portion of the body bears some sympathetic relation to the brain, or its function, the mind. This would argue that if man wishes to preserve all his native purity, both of mind and body, and be god-like in all his designs and aspirations, with a full capacity to appreciate and comprehend the universe of appreciable things, he must be perfect, entire and wanting nothing. Wearing the beard was as common to the ancients as wearing the hair; and if any man were disfigured by being shorn, as a punishment, it was considered a disgrace, and his effeminate appearance humiliated him, and kept him from society until his beard had grown again.

Beards are also indications of character. Men of great precision and nicety of taste, who are somewhat aristocratic in their manner, brush their beard forward; others, more democratic, brush theirs downward. Some train the mustache one way, and some another, according to their own peculiar tastes. A person who has never shaved has a soft, beautiful, flowing beard and mustache, which can be dressed to suit the taste or fastidiousness of the wearer.

Origin of Shaving.

It is said that the habit of shaving was introduced by a young English king, who was too young and effeminate to raise a beard; and that the practice soon became so universal that if a preacher or school teacher wore a beard, he was made a subject of ridicule.

Philosophy and Structure of the Beard.

The beard on the face of man was designed to serve important ends in his animal economy. A moment's attention to its structure and most obvious uses will make this plain.

The beard, like the hair of the head, is hollow, and the bulbous root of every hair of the beard is joined to a nerve of the face. Into the orifice of each hair constituting the beard, the connected nerve discharges a portion of its own vital fluid, which retains its fluid state fully to the surface of the skin, and by its support keeps the beard soft and healthy. When the face is closely shaved, thousands of openings are made, through which flow out as many streams of nervous fluid. It is estimated that the man who shaves three times a week, wastes thirty times the amount of vital fluid required to sustain an unshaven beard. This outflow continues after each process of shaving till the fluid spreading forms a coating, which causes the flow to cease. The waste thus made is a draft upon the entire nervous system, as much so as the oozing of blood would be a drain upon the vitality of the body.

Not only are the fountains of life thus invaded by the razor, but also the natural covering of the face is removed, subjecting the delicate termini of the facial nerves exposed to sudden transitions of temperature, often enough to the detriment of health. Let a person thus shaven go out in a cold day; he experiences a painful sensitiveness to the cold, of the part so uncovered, while myriads of doors are open, inviting disease to enter, and the nerves are so many telegraph wires to bear the tidings through every part of the animal frame. Is it then marvelous that living as most men do, daily or tri-weekly renewing the barbarous practice of shaving, even though there were no other injurious effects, find the stream of life running nearly or quite to exhaustion?

Influence on the Lungs and Eyes.

That the beard of the upper lip is of service to the eyes and lungs, we have most conclusive proof. Whoever has put a dull razor to the beard on that part of the face, starts tears from the eyes, thus demonstrating the immediate nervous connection between that part of the beard and the eyes. Also, shaving the lower lip and chin, has a tendency to develop and aggravate diseases of the lungs and other constitutional disturbances. A preacher of the gospel who had for years kept a clean shaven face, was troubled by loss of sight and a general prostration of health. He ceased shaving and in a few months his eyesight was restored, and he regained his usual health. We might refer to numerous instances where the eyesight and general health has been very much improved by ceasing to follow the barbarous custom of shaving.

General Uses of the Beard.

A farmer who raised clover seed once said to us that he had found that no man who shaved could work consecutively more than two days at cleaning clover seed, while those with full beards could continue such work week after week. Persons working at needle-grinding, alone-cutting, or any dnaty work, are protected by the mustache and beard, from the large amount of irritating dust that was formerly inhaled by such laborers when they shaved; and according to recent statistics, the mortality formerly so large among that class of artisans, has sensibly diminished since the wearing of the beard has become more general. Consumption and disease of the air passages were not so common previous to the era of shaving; and let us hope that by ignoring the razor, man may yet recover his accustomed constitution, and that some future generations may attain, it not the age of our fathers, at least a perfect development, both in body and mind. In such manner can we approach a similarity to God's likeness, and expect a repetition of the saying: "And God saw everything that he had made, and behold it was very good."

Conscience—What is it?

I will first say what it is not. It is not what Webster defines it to be. It is in no sense a knowing faculty, a perceptive faculty or seeing faculty.

What is it? Simply a passionate emotion, aroused upon the perception by the intellect of what is right and just, under the given circumstances. Its gratification is in the performance of right, its violation and pain is in the performance of wrong; its language is, "do right, be right;" but it no more perceives or knows what is right or wrong in any case than the passion of anger or resentment does.

A man may have conscience weakly developed and at the same time have a good intellect and a very clear perception of justice and right, and yet be prompted in his actions by acquisitiveness or some lower passion or propensity which is so much stronger than conscience as to hold the latter in abeyance. A weak conscience is a moral unsoundness.

Some say conscience may be educated; it can no more be educated than anger can; they may be cultivated but cannot be educated, for neither are knowing faculties.

The intellect may be educated in science, or in error, and conscience will always prompt in accordance with the decisions of the intellect. If a man's intellect has been so educated as to cause him to decide that it is right to burn heretics at the stake, his conscience will be gratified in the act. If he has been so educated as to know that belief is involuntary, and consequently all forms of belief should be tolerated, conscience will be gratified in the individual acting accordingly.—*Exchange.*

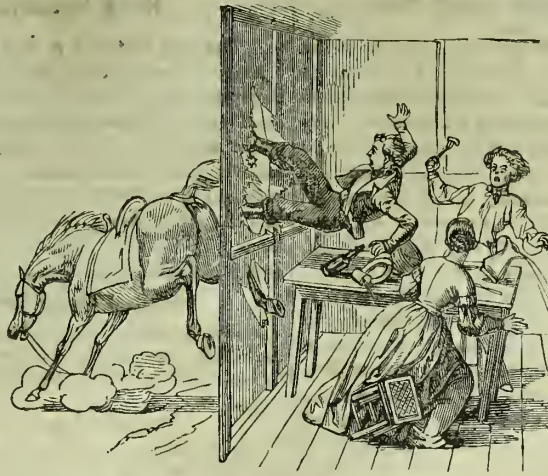
Disagreeable Habits.

Nearly all the disagreeable habits which people take up come at first from mere accident or want of thought. They might be easily dropped, but they are persisted in until they become second nature. Stop and think before you allow yourself to form them. They are disagreeable habits of body, like scowling, winking, twisting the mouth, biting the nails, continually picking at something, twirling a key or fumbling at a chain, drumming with the fingers, screwing and twisting a chair or whatever you can lay your hands on. Don't do any of these things. Learn to sit quietly, like a gentleman, we were going to say, but I am afraid even girls fall into such tricks sometimes.

There are much worse habits than these, to be sure, but we are only speaking of very little things that are only annoying when they are persisted in. There are habits of speech, also, just as beginning every sentence with "you see," or "you know," "I don't care," "now-a," "why-a," "tell ye what," "tell ye now," indistinct utterance, sharp nasal tones, a slow drawl, avoid them all. Stop and think what you wish to say, then let every word drop from your lips just as smooth and perfect as a new silver coin. Have a care about your ways of sitting and standing and walking. Before you know it, you will find your habits have hardened into a coat of mail that you cannot get rid of without a terrible effort.

HUSBANDS AND SHIRTS.—The Troy, N. Y., Times, has this amusing gossip: A day or two ago we overheard two ladies talking about a new dress, and one of them remarked that "When I tried it on I asked Rob if it was a good fit about the waist, and he replied, 'Well, I should say not. It fits about as well as a home-made shirt.'" There was a volume in Rob's reply. As a rule, home-made shirts don't fit at all. They will draw in at the back and over the shoulder to that extent that a fellow don't know whether he is encased in a shoulder-brace or a straight-jacket. The neck-band may not go twice around and tuck in behind, but it usually laps about three inches, or else it is cut so low in the neck that a twenty-four inch collar is required to reach the collar-button. In leaning forward when sitting the bosom crushes in at the side and projects in the middle, looking more like a badly demoralized dust-pan than anything else. The sleeves are so short that the large twenty-five cent pair of cuff-buttons, selected with great care, either tickle a fellow's elbows or dangle around his finger nails, never arriving at a compromise between the extremes. The skirts are generally of an abbreviated character, making the affair resemble an overgrown roundabout. Men do not like to find fault, knowing that their wives meant well enough, and worked hard in making the garments, but, when away from the house, they do not hesitate to say that the desire of their hearts is that their wives should go out of the business.

AN INHUMAN PRACTICE.—The practice of bleeding calves to make the meat look white has, the Boston Globe informs us, been very properly condemned by the Society for the Prevention of Cruelty to Animals, both on account of the pain thereby inflicted on the poor creatures, and the injury done to the public health by the use of this dry and innutritious article of food. A distressing case of this kind of cruelty has just been shown up in Liverpool, where quite a number of calves were found with pins in their necks, undergoing the painful and exhausting process of bleeding. Some of these poor creatures were lying down in a pool of blood, while others were being beaten and probed over the body with a pointed stick. A vigorous prosecution of these torturers is being made, and it is to be hoped that an end of the barbarous practice will be forced.



Life in a Canvas-Walled House.—An Incident.

In that brisk mining camp, Panamint, Lived an honest old miner, John Flint, John married a girl called Maria, And together they lived—though fire-sparks oft came, it is said, from her eyes— But, perhaps, these reports were but lies— When John tumbled home full of beer— And if she did blow him up, it's not queer. One morning at breakfast, while seated, The conversation, like the coffee, got heated; The tenor was something like this:—

Maria could go her way, John would go his. She wished for an appetite like a cannibal Fejee— She'd like to eat every man she could see; In fact, she declared herself willing and able, To carve and devour one from that very same table. The words were scarce uttered, when lo, A voice from without was heard to call "Whoah!" The next moment a man—don't think this a fable— Came crash through the wall and fell on the table. "There, Maria," cried John, with a satisfied air, "Eat all but the pants, I want a new pair; And, perhaps, you'd spare me a hoot and one of the spurs?" I am sure he looks tender—you might have fared worse."

YOUNG FOLKS' COLUMN.

A Talk With Boys.

A cotemporary writes that he has recently been studying the characteristics of men, and has come to the conclusion that, in many cases, their mothers did not do their full duty in "bringing them up," which, he further remarks, "carries me back to the boys." There are so many awkward, lubberly, vulgar, grown-up boors, and so few real gentlemen, that it is very fair reasoning to infer that they were not properly cared for when they were young; for a straight twig usually makes a straight tree. He says: A lad dined with me one day; he was twelve or fourteen years old. He had a pug nose, red hair and a freckled face. His coat was patched at the elbows, and his pocket-handkerchief was a cotton one and coarse at that. After he went away, the lady of the house said, "I like to entertain such company as that lad; he has such beautiful manners."

At another time, a woman left her son with me for a day, and I took him with me to dine. His face was very handsome. He had splendid eyes, a fair skin, and was finely dressed. His mother was a rich woman, and her son had every advantage that wealth bestows. When the day was over, a friend remarked, "How very much relieved you must feel!" "Why?" I asked. "Didn't that boy annoy you exceedingly? He has such disagreeable manners. He is only fit to be shut up in a pen with wild animals."

"But that boy's mother was to blame," you exclaim. Certainly, and so are many of yours, and for this very reason boys must take the making of their "palaces and fortunes" in their own hands.

One gets tired talking to mothers about their duties, especially when they are more concerned about the spring jackets of their boys than their manners. Then possibly many of them say, as I heard one the other day, "Oh, Johnnie will come out all right! It will be time enough for fine manners ten years hence."

An ill fruiting tree may be grafted to bear good fruit, but one can always detect the joining of the stocks. Very much so it is with manners acquired late in life—they have a stuck-on appearance. But if acquired in youth, taken in when the body, mind and heart are specially alive and open to influences, they become "bred in the bone," and the man never loses their controlling power. They become a part and portion of him, and of such a one we say, "he is a real gentleman."

Boys must learn to read and reflect more for themselves. They should take more pride in becoming the architects of their own fortunes. The most successful men of the present day are those who have made themselves such by their own individual efforts.

THE MODEL BOY.—The following description of what a boy ought to be, is published in the Cincinnati Gazette: "If I could make a model boy, I'll tell you what he should be like. He should love cold water and hate a lie. He should be frank and unsuspicious, as becomes a noble, unsuspecting nature, and yet he should be neither silly nor soft. He should have plenty of manias. He should have an appetite like a wolf, for I should wish him to be tall and strong; but he must not be a bit-greedy. He should not be ashamed of loving and reverencing all that is good and holy and pure, but with nothing of the mollycoddle about him. He should have a fine, sweet temper, yet he should be, as the Yankee song says, 'An okered man in a row.'"

But for sweet faces, sweet smiles and sweet songs, there would be no heaven on earth.

GOOD HEALTH.

Taking Cold.

If any considerate medical man wants to bring his name before the public, let him publish a series of sound rules for preventing those who will follow them from taking cold. No danger is more serious; there is none that physicians can do so very little to cure, except of course by regimen, of which the sufferers are impatient, and there is none against which the population of all classes is more reluctant to take precautions. They look upon colds as misfortunes which must come and which do not signify; and if urged to take precautions regard the adviser, even if a professional man, as slightly effeminate, or, as they express it, very much given "to coddling himself." It does not strike them that a cold wave kills as many people as a burst of cholera.

Because strong children survive a daily bath in cold water they think cold water "hardens" children in winter as well as summer; and because air and exercise are excellent things, they assume that fog is air, and a long walk in a drizzle beneficial. The very use of a thermometer to regulate the temperature of a room seems to be unknown in most houses, and you will see sedentary men sitting in a room for hours with a fire which brings the temperature up to seventy degrees, and then for hours more with the fire nearly out and the temperature at fifty-two degrees, or lower. They know, we suppose, that a sudden fall of eighteen degrees will kill off men of low vitality in hundreds; will give, perhaps, a third of mankind a "touch of the liver," and will inflict one-half the remainder an "influenza" nearly as annoying and almost as dangerous as fever; but once indoors they fail to realize their knowledge.

This contempt for the thermometer—the only trustworthy guide in fire-making—is positively perverse, and so is much of the popular notion about "hardening." For the average man or woman exposure to the weather may have a bracing or otherwise beneficial effect, but the loss is as great as the gain; and for the old, for children and for persons of low vitality, is probably greater. People will sit, not in the air, but in drafts of the bad kind, drafts for example such as come under badly fitting doors in railroad carriages, with the utmost indifference, and put themselves straight in front of a fire which would not draw if it were not constantly replenished by a stream of colder air.

The same ignorance governs much of the usual practice as to clothing. The anxious mother will protect her child's chest with a care which, if he is not consumptive and wears flannel, he does not want, and then let him run to school in shoes which, if they keep out the wet, do not when he is seated keep out the deadly chill arising from the thoroughly wetted sole. It is not water on the sole of the foot or anywhere which harms people, but the chill which the water induces, and which is as injurious through the sole of the foot as through the chest or loins.

We are not, of course, arguing that a man of ordinary health should be always watching the thermometer, or should attempt to live by rule, or should sacrifice to mere living the things without which life is worthless. But he might make his life more worthy as well as more comfortable by attending to a few broad rules for avoiding colds, which at present he habitually neglects, and which may be reduced to two easily remembered principles: The secret of temperature is even warmth, to be secured by clothing and regulated fires; and it is chill, not cold, general chill, or local chill, which encourages disease.—*Herald of Health.*

DOMESTIC ECONOMY.

Facts About Flour.

The Boston Journal of Chemistry, in a well-considered article on the effects of fine flour, says,

At the present time it is the practice to a large extent among millers, to grind the finest, soundest wheat into fine flour, and the poorest into what is called "Graham flour." This term, "Graham flour" ought no longer to be used. It is a kind of general name given to mixtures of bran and spoiled flour, to a large extent unfit for human food. What we need is good, sweet wheat flour, finely ground, and securely put up for family use.

This article we do not find in the market, and the Western miller who will give his earnest attention to furnishing such flour will realize a fortune speedily. The brown loaf made from whole wheat is to our eye as handsome as the white. It can be made with all the excellencies of the white so far as lightness is concerned, and it is sweeter and more palatable. With this loaf we secure all the important nutritive principles which the Creator, for wise reasons, has stored in wheat.

[The statement with regard to the "Graham flour" manufactured at the East does not hold good with regard to that product here.—*Eds. Press.*]

NUTS AND CHEESE promote digestion as a general rule; the conditions being that the nuts should be ripe and the cheese old, both to be eaten at the close of dinner; the digestive agent in both is a peculiar oil which has the property of acting chemically on what has been eaten, and thus preparing it for being the more easily appropriated to the purpose of nutrition. Many think that the more solid portions of the nut should not be swallowed. This is an error; those particles of solid matter are not digested, it is true but they are passed through the system unchanged and act as mechanical stimulant to the action of the internal organs, as white mustard seed swallowed whole are known to do, thus preventing that constipated condition of the system which is so invariably productive of numerous bodily discomforts and dangerous and even fatal forms of disease.

COOKING "GREENS."—Every housewife thinks she can cook "greens." It is the simplest of all dishes; and yet, in most cases, they are not well served, for much depends on the manner in which they are boiled. The water should be soft, and a tablespoonful of salt added to a large sized pot of it, which should be boiling hot when the greens are thrown in; and then it should be kept on the boiling gallop, but uncovered, until they are done, which can be told by their sinking to the bottom of the pot, and they should be skimmed out as quickly as possible into a colander, so that all the water will run out. Press them with a small plate, then turn upon a platter, add a large piece of butter, and cut up fine. Serve while smoking hot.—*London Garden.*

A NEW DELICACY FOR THE TABLE.—The French have recently devised a new delicacy for the table, which is quite as expensive as truffles or *patis de foie gras*. It is called "bechamel." In its pure state, looks like frozen lard. It is a jelly made from small fowls; they are simmered over a slow fire until cooked to a semi-liquid condition, the bones are carefully removed, and then to two parts of the material five parts of cream are added, and plenty of mushrooms and champagne to flavor it. It takes a great many small fowls, say twenty or more, to make a single pound of this preparation.

CARROTS FOR EGGS.—It is not generally known that boiled carrots, when properly prepared, form an excellent substitute for eggs in puddings. They must, for this purpose, be boiled and mashed, and passed through a coarse cloth or hair sieve strainer. The pulp is then introduced among the other ingredients of the pudding, to the total omission of eggs. A pudding made up in this way is much lighter than when eggs are used, and is much more palatable. On the principle of economy, this fact is worthy of the prudent housewife's attention.

RABBIT CUTLETS.—Prepare the rabbits as you would for a stew; cut the different limbs into the size of cutlets—such as the shoulders cut in half, also the legs, with the ends of the bones chopped off, and pieces of the back, even to the half of the head. Have ready some bread-crumbs and the yolk of an egg beaten up. Drop each cutlet into the egg and then cover it up with bread-crumbs, as for veal cutlets. Fry them a nice brown, and when you dish them pour round them some rich brown gravy, which may be flavored with tomato sauce if approved, and put round them rolls of fried bacon.

LEMON PUFFS.—One quart of milk, the yolks of six eggs, two cups of white sugar, two tablespoonfuls of flour, three lemons. Beat the eggs, sugar and flour together well; beat the eggs first, then add the lemon juice; have your dish lined with paste; do not add the milk until you are ready to put it into the oven. Beat up the whites, add fine white sugar, a large teaspoonful, and beat very light; flavor to taste. When the custard is done spread the icing over it, set it back in the oven and let it brown nicely. Eat as soon as cold.



PUBLISHED BY
DEWEY & CO.
A. T. DEWEY. W. B. EWER. G. H. STRONG. J. L. BOONE
PRINCIPAL EDITOR.....W. B. EWER, A. M.

Office, No. 224 Sansome street, Southeast corner of California street, where friends and patrons are invited to our SCIENTIFIC PRESS, Patent Agency, Engraving and Printing establishment.

SUBSCRIPTIONS payable in advance.—For one year, \$4; six months, \$2.25; three months, \$1.25. Remittances by registered letters or P. O. orders at our risk.
ADVERTISING RATES.—1 week, 1 month, 3 months, 1 year
Per line.....25 .80 2.00 5.00
One-half inch.....\$1.00 \$3.00 \$7.50 24.00
One inch.....2.00 6.00 14.00 40.00

Large advertisements at favorable rates. Special or reading notices, legal advertisements, notices appearing in extraordinary type or in particular parts of the paper, inserted at special rates.

No Quack Advertisements inserted in these columns.

SUBSCRIBERS are requested to examine the printed address on their papers. If mistakes occur at any time, please report them to this office. The last figures (at the extreme right) represent the year that your subscription is paid to. Next to these the day and month is represented. For instance, your subscription being paid to July 4th, 1876, it would be represented, viz: E 2; or 4/176; or July 4, 76.

THOUGHTLESSNESS.—Persons sometimes return their paper, marked "stop this paper." Their name being pasted on the sheet they think that is all we need to be able to cross their names off. Now that is thoughtlessness. Your P. O. address is needed as much as your name. We have thousands of names arranged only according to locality. Our mailing clerk does not know where everybody lives.

SAN FRANCISCO:
Saturday, May 15, 1875.

TABLE OF CONTENTS.

GENERAL EDITORIALS.—Openings for Immigrants; Scenery in Colorado, 321. Those Japanese Maples; The American Wheat Field; Home Industries; The Present Phase of Immigration, 328. Patents and Inventions, 332.
ILLUSTRATIONS.—The Mountain of the Holy Cross, 321. Economy of the Vegetable Kingdom, 329.
CORRESPONDENCE.—Farm Notes from Santa Clara Valley; Letter from Michigan; From San Luis Obispo; Mules; From Riverside, San Bernardino County; Crops; Borders, Fresno County, 322. From Ferndale, Humboldt County, 323.
SHEEP AND WOOL.—Eastern Wool Market; Angora Goat Breeding Association, 323.
PATRONS OF HUSBANDRY.—Progress of the Patrons in California; New Granges; Meetings; Etc., 324.
HOME CIRCLE.—The Coal Imp (Poetry); Education of Young Women in Agricultural Colleges; Purity in Boys as well as Girls; A Fashionable Recipe; Love of Country; The Human Beard, 326. Conscience—What is it? Disagreeable Habits; Husbands and Shirts; An Inhuman Practice, 327.
YOUNG FOLKS' COLUMN.—A Talk with Boys; The Model Boy, 327.
GOOD HEALTH.—Taking Cold, 327.
DOMESTIC ECONOMY.—Facts about Flour; Cooking "Greens"; A New Delicacy for the Table; Carrots for Eggs; Rabbit Outlets; Lemon Puffs, 327.
POPULAR LECTURES.—Economy of the Vegetable Kingdom, 329.
HORTICULTURE.—Roses and Roses, 332.
AGRICULTURAL NOTES from various countries in California, 332.
MISCELLANEOUS.—Useful Hints; How Drains Act; To Remove Dents, 323. General News Items, Agricultural Items, 325.

Those Japanese Maples.

In the *RURAL PRESS* of December 19, 1874, we noticed the arrival of twenty-four varieties of maples, imported from Japan by a gentleman of this city. Some interest has been manifested in the welfare of these Asiatic nurslings, and being aware that sufficient time has elapsed to decide their fate, we have taken pains to enquire about their present condition. As was stated at the time, they were put into proper hands; and we find that they have been properly cared for and are doing well. This will afford satisfaction to those who are interested in adding to our list of ornamental trees, for even this single importation, though confined to one class, gives us twenty-four varieties of this class, all of them unique and beautiful.

Probably our readers are not aware of the extent of our plant trade with Japan and China; or, they may possibly think that we simply hold the unenviable position of debtor in this account. This is not so, for both these nations, the Chinese especially, are ordering quite freely in the line of ornamental plants. Mr. R. T. Trumbull, of this city, informs us that he has during the present season filled orders from China for the following plants: fine roses, primulas, calla lilies, snow drops, lilies, native and foreign, fuchsias, fancy colored geraniums, native ferns, etc. Our Asiatic customers, in ordering plants, invariably call for the finest varieties.

Our horticultural receipts from China during the same period consist of palms, grafted oranges, cape jessamines, camellias, flowering peaches, lilies, etc.

Mr. T. informs us that he expects to receive about fifty varieties of plants by the next steamer from China.

The American Wheat Field.

Predictions concerning crops, even up to the time of harvesting, are about as hazardous to the reputation of the everyday prophet as to indulge in prophecies about the weather. It is perfectly safe, however, at the present time to predict that the incoming crop of California wheat will be considerably below the average; but whether it will be three-quarters, two-thirds, or half a crop, will not, in our opinion, be known until the grain is harvested.

In the early stages of its growth the wheat crop was of remarkable uniformity, but in all its subsequent stages, up to the present time, it has been as remarkable for its eccentricity. There is nothing particularly surprising in the fact, that while in many places the crop is almost an entire failure, in others it is, according to recent observations of parties who have called at our office to day, above an average. The difference in the extent to which different localities have suffered from drouth and frost would account for this; but the fluctuations between hopeful and discouraging reports from the same localities, within a week's time, are not easily accounted for. We have heard of certain localities where the crop is spotted to a degree difficult to explain, there being no apparent difference in soil, supply of moisture, or treatment of crop.

On the whole we hope for a better yield from the coming harvest than is generally expected; and furthermore, we believe that a glance over the wheat fields of the Atlantic States will warrant the expectation that there will be an advance over last year's price, which will, in a measure at least, offset against whatever deficit there may be in the yield.

The April report of the Department of Agriculture affords an exhibit of the winter wheat crop in all the Eastern and Northwestern States, which is of a more discouraging character than the crop of California has shown at any time during the season. The area of winter wheat sown in these States last fall is an increase of about nine per cent. over former years. A portion of this is known to be partially or wholly destroyed by the severity of the winter. The States in the valleys of the Ohio and Missouri report inferior condition of wheat as the result of winter-killing. The report says: The protection afforded by snow has been exceedingly valuable in all the area north of the thirty-ninth parallel of latitude; the injuries sustained resulting, mainly, from thawing and subsequent freezing in March. In New York two-thirds of the counties heard from report a medium condition of winter wheat; in the other it is inferior. New Jersey and Delaware report a condition below medium. Pennsylvania is rather favored, the condition of the crop being above the average.

In Maryland "few counties can claim an average condition." Returns from Virginia indicate a condition below average, North Carolina, Georgia, Alabama, Texas, Arkansas, Tennessee and West Virginia are rather above the average, while Kentucky and Ohio are below. In Michigan, according to the Department report, the winter wheat, so far as could be seen, presented a promising appearance. Later observations, however, since the disappearance of the snow, are quite discouraging. "Nearly half the returns from Indiana are unfavorable, and two-thirds of the remainder are only average." "The appearance of winter grain in Illinois is considerably below the average." In Wisconsin the ground has been so well covered with snow that the wheat looks better than usual. "Of fifty-seven counties reporting wheat in Missouri, thirty-two indicate average condition, twenty below and only five above."

We are not disposed to indulge in any premature estimates of the coming wheat crop in Europe. It is difficult, if not quite impossible to obtain at any season reliable estimates of the wheat product of England. There is complaint at home that the forms issued by the Board of Trade for the purpose of obtaining these estimates have met with a very limited response from the growers, and in this connection the London *Farmer* has the following: "It is certain that until the returns shall be made compulsory under penalty, the information they furnish will be regarded by a large section of the agricultural community as approximate, rather than reliable to any degree of nicety."

The yield of the European wheat crop at the approaching harvest will of course influence the price of California grain, but it cannot control it altogether; for, without the aid of prophecy, we can by an examination of reliable data safely estimate the coming wheat crop throughout the United States at considerably below the average. But if this limited amount of wheat is sold at good prices, as we confidently hope will be the case, and the coming winter finds the wheat market pretty well cleared out, it may at least become a debatable question whether California has really been the loser by any shortcomings of the present season.

From our intercourse with farmers we infer that they take this view of the matter, and better prices for grain, fruit and dairy products are confidently expected, while consumers seem to expect to pay more for all these articles.

Home Industries.

The Bag Factories of San Francisco.

Among the important industries of San Francisco the manufacture of bags must not be overlooked. When we consider that the immense wheat crop of California exported, last year exceeding 8,000,000 centals, is packed into bags and so loaded aboard ships, it will be seen that the supply of bags must be proportionately large. To meet this demand the bag factories of San Francisco were called into existence.

Amount of Capital Employed.

It is difficult to arrive at the exact amount of capital employed in this business, but it is safe to say that \$500,000 would not be an excessive figure.

Number of Bags Used.

The number of grain bags used during the year 1873, was, in round numbers, 10,000,000. In 1874 the number was increased to 15,000,000 and it is estimated by a gentleman well qualified to judge that 12,000,000 will be needed for the grain crop the present season. Of course much the greater portion of these were imported, but there were manufactured over 2,000,000 grain bags in this city the last year, while a company in Oakland manufactured from the raw material as many more. In addition to those designed for grain 2,500,000 flour bags were manufactured here in 1874, and 2,000,000 small bags for salt, etc. In making these bags, 1,000,000 pounds of flax twine is used, besides a large quantity of cotton twine.

The Factories

Are all located quite near to each other, three being on Clay and one on Davis street, and competition is quite sharp between them. The uncertainty of the grain crop this year has had rather a distressing influence on the business, though in the past week it has rallied somewhat, as the prospects for a better harvest have brightened.

Neville & Co.,

At No. 113 Clay street, have forty sewing machines, twenty-one of which are in use. They now employ forty-eight hands, all men. A skilful workman will turn out in a day of ten hours, 1,000 grain bags, with a machine. This firm manufactures entirely by machine, and claim their goods equal to any hand sewed bags in the market. No. 105 Clay street is occupied by Neville & Co. for storing second hand bags, and manufacturing tents, a branch of the business in which they are largely engaged. At No. 115 Drumm street they also have a force of men employed in repairing bags. They import their own material and at present have several large invoices stored in the Bay Warehouse.

Delrick & Co.

This firm, located at No. 123 Clay street, have seventy sewing machines of the Grover & Bakern pattern, but in the present dull season only run fifty. They employ about 125 hands, mostly girls and boys. The machines are run by girls, and the boys cut the material into proper sizes, turn the bags after they are finished and pile them in stacks ready for compression by the baling press, which is worked on the hydraulic principle and is a model of its kind. The girls work entirely by the piece, and earn from \$5 to \$8 per week. The boys, some of them, make \$8 per week turning bags. Three examiners are constantly at work in the manufactory on the lookout to detect any imperfection in the sewing or the material of the bag; as an incentive to report anything like a flaw in the work, the boys receive a cent apiece for each defective bag reported. Connected with the manufactory is a piling press where all bags receive the firm trade mark or are labeled as desired. A machine shop and a skilled mechanic afford means for repairing any break in the sewing machines. This firm has sold since January 1, 1875, 1,080,000 bags of different kinds. Their manufacturing capacity is 30,000 a day.

The California Standard Sack Company.

Located at 36 Clay street, is a new organization formed for the purpose of manufacturing sacks of all descriptions, using for that work the Garland needle. This ingenious contrivance, the invention of Mr. H. P. Garland, is deserving of notice. The needle has all the appearance of a spiral spring, is about three feet in length and an inch in diameter. One end of the needle is sharply pointed, and in a groove along the whole length is laid the twine to be used for sewing. Three rubber cylinders of a length equal to the needle are provided. Two of these below form a bed on which the needle rests; the other is placed on top of it and as they revolve the needle is put in rapid motion. The material is fed to it. As it comes within range of the needle the point enters, carrying the twine through and pushing it along, repeating the movement until the end of the cloth is reached. The twine now appears in loops where each entry by the needle was made; but as the end approaches, by an ingenious device the bights of twine along the whole face of the material are gradually tightened until, as it drops from the machine, a close and even stitch is seen. The inventor feels confident that this needle will effect a revolution in bag making—it certainly works well thus far. The company have eight machines in operation, each of which will sew 1,000 sacks per day of ten hours. The best flax twine is used in sewing, and it is claimed the bags already offered in the market have been received with

approval. The machines are driven by an engine of eight horse power. Girls are employed to work the machines, and the sacks are turned by boys. The wages paid range from fifty cents to one dollar and a half per day. A machine is also in use for hemming the material ready for making into sacks. Mr. A. J. Gove is the manager, and evidently the right man in the right place.

J. & P. N. Hanna.

This firm, who are located at Nos. 308 and 310 Davis street, are largely engaged in the manufacture of sacks of all descriptions. They confine themselves, however, entirely to hand sewed work. The making of ore bags is a specialty with them. Coal sacks are also manufactured. They make at least 100,000 a year of the latter. Grain, wool, bean and potato sacks are also made, all sewed by hand. The manufactures of the Messrs. Hanna stand deservedly high in the market, and they are determined to maintain their excellent reputation.

Conclusions.

From the facts given above it will be seen that the manufacturing of bags is entitled to a place among our greatest industries. But what this business now is bears little semblance to what it may become in the future if the experiment, already ventured in a small way, of growing jute and flax within the borders of our State should prove successful. Where now hundreds of hands are employed thousands would then be necessary, and where we estimate the capital used by thousands it would be reckoned in millions.

The Present Phase of Immigration.

As a matter of real interest and importance the subject of immigration still holds its own, though the excitement has somewhat abated. The temporary suspension of travel on the Central Pacific railroad was the cause of a "slacking up" in the great rush, giving our own people breathing time, or rather thinking time, and the crowds that had previously arrived, by partially moving off to their destinations, made a better opening for the later comers.

The matter is mostly stripped of its novelty, and the confusing excitement of three weeks ago having subsided, it is settling down to its proper place—the true business level. Bogus philanthropy is less conspicuous, and at the present writing, those who manifest a particular desire to have the immigrants supplied with baby-jumpers, are suspected of being interested in the sale of these articles.

The immigrants of 1875, like those of previous years, must, of course, expect that the patriarchs of California immigration will bore them just a little, and also insult them a little—without knowing it, however—by giving them slightly embellished sketches of primitive California life, and the important part they played in it. But where the slight insult comes in is where the patriarch says: "I suppose you have come here expecting to pick up twenty-dollar pieces in the street, but you'll find them mighty scarce. You undoubtedly hope to live here without work. Not much, California don't want any bums." Such stuff as this, we take it, is one of the greatest annoyances that the new comer is called upon to endure.

An unaccountable error has somehow taken possession of our people, namely, that all, or nearly all, the immigrants who come hither are going to engage in tilling the soil. They apparently do not consider that among the coming thousands, all the trades, professions and commerce are largely represented. By remaining in San Francisco, or going to other cities and villages, this large class will best serve their own interest and add most to the wealth of the country.

The present wants of California are not limited to farmers. Probably the most urgent of immediate wants is manufacturers to work up at home some of the raw materials produced by our farmers. The *RURAL PRESS* and other journals have made these needs known to the people of the Atlantic States, and it is reasonable to suppose that some of those who are now coming hither have an eye to the chances in this direction, and have brought with them the requisite skill, experience and energy to avail themselves of the advantages offered.

It should also be borne in mind that California wants consumers as well as producers, and it would be well, perhaps, for some people to be a little more careful how they hurl the epithet "drones" at all who are not recognized under the somewhat arbitrarily classified grades of producers.

The shipment of California farm produce for the present year will probably fall considerably short of that of 1874; but while that portion of the deficit which is attributable to under production furnishes just cause for regret, we should congratulate the State on a marked increase of home consumption.

BORAX SOAP.—As will be seen by an advertisement in another column, Fiskinburg & Co. of this city, have commenced the manufacture of what is known as "borax soap." It is claimed that it washes with less labor than ordinary soap, being compounded of ammonia and borax, both of which possess great cleansing qualities, and which do not injure the fabric.

ON FILE.—"Spaying Cows," S.; (will appear next week); "Upper Lake Valley," C; "About Ossage Orange," T. B. B.; "Letter from Anaheim," A. C. K.; "Letter from J. W. A. W."

POPULAR LECTURES.

Economy of the Vegetable Kingdom.

Fourteenth Lecture Delivered before the University of California College of Agriculture, on Monday, February 8th, by Prof. C. E. BESSEY.

(Reported and Illustrated for the RURAL PRESS.)

Maples, the Grapevine Family, Mahogany Tree, Flax, Etc.

The first group we take up to-day is the group of the maples, now regarded as a sub-order, but, as the remainder of the order is of no importance, we can treat it by itself. The maple, *Aceraceae*, are usually as a sub-order of the soapberry family. As I said before, this is ranked as a sub-order as it stands, including only the maples. It is made up of less than one hundred species, all of them trees. Some of them are of very considerable magnitude.

First is sugar maple, it is commonly called in the East (*Acer saccharinum*), on account of the sweetness of its juice; starch and sugar are very largely made from it. The wood is light in color, of heavy weight and very firm. The wood being very hard, it gets the name, popularly, of hard maple. It is quite durable and when it takes on a peculiar wavy form known as curly maple, it is very highly prized. That is sugar maple.

Next is *Acer rubrum*, the red or soft maple found east of the mountains. The wood is generally lighter as to weight and is softer than sugar maple. Where moisture can attack it, it readily absorbs it, and if kept continuously moist, it very soon decays. It is, however, used largely for making chairs and the cheaper sort of furniture. As it is not very much inclined to split, almost all the cheap chairs brought from the East are made of this soft maple.

One or two others grow east of the mountains, but remember these two, *Saccharinum* and *Rubrum*, stand as the types of two groups. Now, on this coast, we have no hard maple at all.

Acer macrophyllum, a large tree, called also Oregon maple, is found in Oregon, and in the northern part of this State. It is a soft maple, so it can be used just where the red maple of the East is used, but if put out of doors and subjected to alterations of moisture and dryness, heat and cold, it very soon decays and becomes quite useless. This also now and then becomes somewhat curled, and is then called curly maple.

The striped leaf maple, (see Fig. 1,) *Acer negundi variegata*, is a new variety of maple, being white and green. It is now seen in many American and English gardens. It grows to a height of fifty feet and has a most luxuriant and spreading foliage. The form of leaf is shown in the lower corner of the engraving.

The next one is box elder, coming under the genus *Negundo*, species *aceroides*. It now is found throughout almost all parts of the United States, east of the rocky mountains. It is a small sized tree with wood very much resembling the maples. It is usually ranked among the maples. Botanically, it is merely an ally. Sometimes it is called the ash-leaved maple. For all practical purposes it might just as well be considered a maple tree and used just as we use the soft maple. Its wood is not as hard as the hard maple of the East, and so cannot take its place. On this coast an allied species is found. I do not recollect its specific name. I don't know that it ever has been brought into specific use as yet. I have been told a little use has been made of this box elder for the blocks for wood cuts. When carefully prepared and dried, I think oiled, too, first—it takes on a texture which makes it valuable for wood cuts.

The next group is the vine family, or, as it might be called, the grape vine family, including all the grapes and nearly allied plants of the order *Vitaceae*. About three hundred species are known, found mostly in temperate climates, although somewhat inclined to run into the tropics. It cannot be considered a cold-blooded group by any means, as it always keeps pretty close to the warmer climates. It derives importance from one plant, the grape, and of this there are several species in cultivation. The first, and most

Important to the People of California,

is *Vitis vinifera*, the so called European grape. It is a misnomer, however. It is no more European than the apple, peach, plum and those things are European. It has been cultivated from time immemorial. Its native countries, perhaps, are those bordering on the Mediterranean, especially the Eastern portions. It is said to have been introduced into England by the Romans. It is not a native there and since the time of its introduction it has been very considerably grown as an edible fruit, not for wine nor for raisins. In Southern Europe, as well as all the adjacent country lying east and

southeast, as the summers there are long enough and steady enough, that is, a long continued, hot season, this is favorable to the proper ripening of the grapes. As to uses, these may be divided as I have divided them here on the board. They are used either raw or manufactured. Are edible used as preserves and manufactured into raisins, wines, vinegar, etc. Now, east of the mountains we find that our grapes can only be used well in the first state; that is, as raw materials, raw products, while the grapes on this coast, very many of them, seem to be very well adapted to the manufacture of raisins and wines.

In Europe, as you pass southward, raisins which can be manufactured are largely grown. Northward, the varieties are grown which have to be used in the raw state. Those used raw are northern, those manufactured, southern ones. You will find this to run right through

—“I don't understand how the European grape is better than the American.” Well, it is just this, I will explain that more fully in a moment. The European grape has been grown probably three, four, or five thousand years. It has been cultivated, as you may say, moulded over from its former wild condition to a condition that is a considerable change from its original form, has very many of those stronger acids worked out of it, is considerably sweetened, its desirable products increased, the undesirable decreased, simply by long cultivation. Now, when we take this cultivated one and put it by the side of our American grapes which have been only in cultivation about two or three hundred years, you see here on one hand four or five thousand years of cultivation, and on the other comparatively a very short time. That has much to do with the matter. I suppose that a few thousand years hence our



Fig. 1. STRIPED LEAVED MAPLE.

the whole world, if you take the matter up pretty carefully. Now, this is due to several things. In the first place, those grapes from which raisins can be made are mostly tender and are, therefore, grown in southern climates, and in the second place, generally in all the northern climates we do not have heat enough,



Fig. 2. Leaves and Flowers of Tea Plant.

long enough summers, for properly ripening up the grapes. So, if they do make any wine at all in the north, it is exceedingly harsh and sour and not at all fit for drinking, so that the world is necessarily divided into certain belts, as you may say.

Then another thing that comes in is this: Taking these grapes as they are brought into this country, into the United States, we find that this European grape, so called, having been cultivated for a very long time, has been in fact improved so that it has the proper qualities

For Wine Making and Raisin Making.

While the American grapes, which are mostly grown eastward beyond the mountains, have not been sufficiently improved. Now, on this coast I find that the European grape is the one mostly grown and from it the wine and raisins made on this coast are mostly made. [Student.

American will be as good as these, possibly. I need not stop to discuss raisin making or wine making. You can get very much fuller information from little manuals that are published and from lectures that will be given here after a while on that subject. One thing may be mentioned as a key to the whole matter. In wine making, grapes

Must be Allowed to Become Fully Ripened.

In a great many instances the wine is sour because people are not willing to leave their grapes on the vine to become properly ripened, and gather them too soon for manufacturing.

I heard a gentleman upon this subject two or three years ago, who was fully posted on this matter. His advice for making good wine was, first to wait till the grapes were thoroughly ripe and then to allow them to stay two weeks longer on the vines and you may be sure that you can get pretty good wine from them. [Student.—“I should think they would dry up.”] Well, he said that they would begin drying. The way we usually do in the valley and the way it is done here in America is to wait until they are colored, wait until the color is pretty good. [Student.—“Here they wait until the grape gets exceedingly sweet and then they pick them.”] Something was said about the grapes from the same vine differing. Some may not be as sweet as others. Very few California wines can compete yet with European wines. Considerable influence or pressure must be brought to bear to make them compete. A good wine merchant behind a cargo of wines, of course, will make it compete.

That fact shows some mistake in the wine making. I suspect it to lie right here. I don't say it is in the climate. If anything, I should say California climate is better than the climate of many portions of France and Spain for the culture of grapes for wine. However, that is a topic that does not specially belong to economic botany.

The grape is known throughout the Eastern United States. When the people came across from Europe, of course they brought European grape vines. In a few years they found they could not grow them. They were nat-

rally tender and killed down in the winter, and were subject also to a great many diseases which characterized them, and mildews and certain little insects that got on the roots of the vines, so that for a while they were compelled to fall back upon the wild grapes in the forests. They took these and have been cultivating them some 150 or 200 years and in this time have succeeded in getting some very fine grapes indeed. They are not the same we have here. There are in the East many species. Some of the varieties derived from these are brought over here. First, *Vitis riparia*, which we call the River Bank grape, a rather late growing grape, which has small berries. From it we have derived the Delaware, one of the most delicious of the table grapes. The Clinton, which is the opposite of that, sour as can be, very red however, is derived from the same original.

V. aestivalis, which grows all through the northern portions and up in the northernmost part of the Eastern United States, is called the northern summer grape. From it we get good forms, as the Virginia seedling, Herbeumont and many others. Some varieties only get about as far north as Cincinnati or Cleveland. The Northern fox grape, *V. labrusca*, is found growing all over the tallest trees and produces a large berry. From this is derived the Catawba, which is a wine grape of the East. All through the lake region you will find enormous vineyards of Catawba grapes, and also along the rivers.

Along the Ohio, Mississippi and Missouri rivers are vineyards of it. The Concord grape, from which a very red wine is made, is derived from the same one from which we get the Catawba.

The Isabella is from the same origin and the Hartford Prolific and perhaps a dozen or two more.

A few years ago one of our foremost growers in the East made some experiments with reference to improvement, so as to bring in the good taste of the European grape along with the hardiness of our American variety. He hybridized this *Labrusca* with the European, and obtained a new sort, a fair grape with fruit resembling the berry of Europe, having much the same color and form and many of them very much the same taste, while many of them had the hardiness of the original ones. I think the Black Prince is a foreign grape. I am not familiar with the varieties. You see these are split up into myriads. I have here only given the principal varieties.

I think, although it is a little outside of economic botany, I will call your attention to one insect that we have given a great deal of attention to in the Mississippi valley. It is

The Phylloxera.

Do you know it here? Is it a common name with you?

The *Phylloxera vastatrix* is a little root plant louse. It gets on the roots, stays there, sometimes two or three feet under ground, and wherever it stops it makes a little gummy swelling, so that you take up a root of a vine troubled with this, and instead of being elongated like that without any swellings, it will have little bulky swellings.

If you want to know whether your vines are troubled with this, just examine the roots affected with swelling. The particular fact that connects this to economic botany is this: From very careful examination for many years, investigators have, in the Mississippi valley, come to the conclusion that this insect is the cause, in a certain way, of grape mildew; that this insect, working upon the vine, weakens it so much that the grape mildew, *Erysiphe Tuckeri*, can take hold of it. This is not proved as yet, but it is so nearly proved that it perhaps may be given as almost demonstrated. Experiments to prove or disprove this will be finished in a year.

In very many cases these fungus plants do act in just this way. Now, as you have mildew here in the lower lands, I have no doubt there is *Phylloxera* there.

Ornamental Plants.

In the Virginia creeper, *Ampelopsis quinquefolia*, found east of the Rocky Mountains, we get one of the finest deciduous vines that we have.

In a little order, very nearly allied to the vine family, the order *Meliaceae*, a small group of two hundred species, tropical shrubs and trees, we find the mahogany tree; and as it is a tree of great commercial value, it is worthy of special notice. This tree is the *Swietenia mahogany*, found in Jamaica and tropical America, a large tree with ash-like leaves. Very frequently they can get the trunks large enough so that they will square from four to five feet.

Jamaica cedar, which also comes into this market from the island of Jamaica, is *Cedrela odorata*, a large tree resembling mahogany. The only thing I need mention here is, that it is not a cedar. It stands nearer to the maples than the other trees. *C. australis*, found here also in the market, is a good, large tree, sometimes ten feet in diameter, yielding very valuable wood. Satin wood, of which you can see specimens at the furniture shops, is *Chloroxylon*, (the species I don't know) from the East Indies; and then again in another allied family, a very small one, of some fifty species, we get what is called zebra wood, a reddish brown wood, with peculiar zebra-like markings upon it, (*Omphalobium Lambertii*.)

It is a good sized tree found in South America. The wood is fine. These are of great impor-

BREEDERS' DIRECTORY.

PURCHASERS OF STOCK WILL FIND IN THIS DIRECTORY THE NAMES OF SOME OF THE MOST RELIABLE BREEDERS. OUR RATES: Six lines or less inserted in this directory at 50 cts a line per month, payable quarterly.

CATTLE.

R. ASHBURNER, Baden Station, San Mateo Co., Cal., breeder of Short horn cattle. Pure Bred Bulls for sale, from cows of choice milking strains.

J. BREWSTER, Galt Station, Sacramento Co., Cal., breeder of Short-Horn Cattle.

J. D. CARR, Gabilan, Monterey Co., Cal., breeder of Trotting Horses, Short-Horn Cattle, Thoroughbred Spanish Merino Sheep and Swine.

A. MAILLAIRD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.

W. L. OVERHISER, Stockton, San Joaquin Co., Cal., breeder of Short-Horn Cattle and Berkshire Swine.

PAGE BROTHERS, 304 Davis street, San Francisco, (or Cotate Ranch, near Petaluma, Sonoma Co.): Breeders of Short-Horns and their Grades.

R. G. SNEATH, Menlo Park, Cal., Thoroughbred Jersey Bulls, from one to two years old, for sale. \$100 to \$150.

STANTON & POWERS, Sacramento, Cal. Breeders of Jersey Heifers and Bull Calves at low rates. Address L. C. Powers, Sacramento, Cal.

MOSES WICK, Oroville, Butte Co., Cal., breeder of Short-Horn Cattle. Young bulls for sale.

SHEEP AND GOATS.

H. F. BUCKLEY, Hopeton, Cal. Thoroughbred also 1/2 and 3/4 Cotswold grade sheep.

MRS. ROBERT BLACOW, Centerville, near Niles Station, Alameda Co., Cal. Pure-Blooded French Merino Sheep for sale.

N. GILMORE, El Dorado, El Dorado Co., Cal., importer and breeder of Angora Goats.

LANDRUM & RODGERS, Watsonville, Santa Cruz County. Pure-Bred Angora Goats and Cotswold Sheep for sale.

SEVERANCE & PEET, Niles, Alameda Co., Cal., breeders of Thoroughbred Spanish Merino Sheep.

A. G. STONESIFER, Hill's Ferry, Stanislaus Co., Cal., breeder of Pure-Blooded French Merino Sheep.

L. U. SHIPPEE, Stockton, Cal. Importer and Breeder of Spanish Merino Sheep, Durham Cattle and Essex Swine.

POULTRY.

GEO. B. BAYLEY, Cor. 16th and Castro streets, Oakland, Cal. Imported Brahmas and other choice Fowls for sale.

ALBERT E. BURBANK, 43 and 44 California Market, San Francisco, importer and breeder of Fancy Fowls, Pigeons, Rabbits, etc.

M. EYRE, Napa. Bronze Turkeys, Emden Geese, Choice Fowls, Pigeons, Rabbits, Ferrets.

WILLIAM KNOWLES, Brooklyn, Alameda Co., Cal., has for sale Eggs for Hatching, carefully packed, from pure-bred Bronze Turkeys, at \$7.50 per dozen; Brown Leghorns at \$4.00 per dozen; Houdans, White Leghorns and Buff Cochins at \$3.00 per dozen; two dozen for \$5.00. Sent C. O. D. to any address.

Mrs. L. J. WATKINS, Santa Clara. Premium Fowls. White Leghorn, S. S. Hamburg, Game Bantams, and Aylesbury Ducks. Also, Eggs. 21v8-3t

Live Stock Notices.

E. W. WOOLSEY,
BREEDER OF



Thoroughbred Spanish Merino Sheep,

From Vermont Premium Stock,

At Berkeley, Alameda County. Horse cars every half hour from Broadway Station, Oakland.

CITY OFFICE, 418 CALIFORNIA STREET, S. F.

The Imported Draft Stallion, ADOLPH,



Will make the Season of 1875 at the Stable

Proprietor,

COR. FOURTEENTH AND MISSION STREETS, SAN JOSE,

COMMENCING MARCH 1st, AND CONTINUING FOR NINETY DAYS.

Adolph was imported from Belgium to Illinois in June, 1872, and to California in October last. He is a pure-bred Draft Horse, of the French Farnambeck stock, of a dark brown color, good life, kind disposition and fine movement for a horse of his size. Is seven years old, 16 1/2 hands high, and weighs 1,650 pounds.

Terms, For the Season - - - \$25.00.

Payable during the season in U. S. gold coin, or \$10 paid down and \$15 payable when mare is known to be with foal.

Mares from a distance can be kept on good pasture and cared for at \$4 per month. All accidents and escapes at the risk of the owner.

I have imported 12 head of the same stock of horses from Illinois, and in write examination and comparison with any stock of the class in the State. Four three-fourth blood stallion colts for sale. Can be seen on my farm, three and one-half miles east of the city.

L. V. WILLITS.



Pure Blooded French Merino Rams

For sale by MRS. ROBERT BLACOW, of Centerville, Alameda County, Cal., near Niles Station, on the Western and Southern Pacific Railroad.

These Sheep are guaranteed of pure descent, from the French Imperial Flock at Rambouillet, and are equal, if not superior, to any of this breed in size and quality of wool, and are proved to be the heaviest shearers in the world.



GABILAN HERD

Spanish Merino Sheep.

I have just purchased of Mr. George Hammond, of Vermont, three car-loads of Spanish Merino Sheep, (335 head, Ewes and Bucks) which, with others that I purchased last Fall, (also direct from Vermont) makes my band of Thoroughbred Spanish Merinos about 650 head.

I am prepared to sell both Bucks and Ewes, of Pure Blooded Spanish Merinos—as good as can be had in the World—so says Mr. Hammond. Parties interested will please give me a call. I am ten miles from Salinas City, Gabilan P. O., Monterey county.

J. D. CARR.

N. B.—I have also Good Graded Bucks for sale, and can dispose of some Good Graded Ewes. J. D. C.

Thoroughbred Spanish Merinos

FOR SALE.

60 one and two-year old Thoroughbred Spanish Merino Rams, California, bred, from Ewes imported from Vermont, and sired by Severance & Peet's Celebrated Ram "Fremont," and by their Ram "Green Mountain," which took the first premiums at the Bay District and State Fairs. Last shearing—35 1/4 lbs.—years' growth.

Also, about 100 Ewe and Ram Lambs, all of "Green Mountain" Stock, bred this year.

B. F. WATKINS,

Santa Clara, Cal.

FOR SALE.

400 Pure Blood French Merino Rams,

On the Orestimba Ranch, six miles west of Hill's Ferry, Stanislaus County, Cal. All Rams delivered at the railroad, free of charge. Terms easy and prices liberal.

A. G. STONESEFER.

12 Short-Horn Bulls,



fat and sleek, thoroughbred, just from Kentucky, at SAXE'S Stables, 35 Ritch Street, between Folsom and Harrison, two blocks from Grand Hotel. Inquire at SAXE'S Stables, or Room 32 Russ House. 3v9-3m

Poultry Breeders.

M. FALLON,

Cor. Seventh & Oak sts.,

OAKLAND, CAL.

Light & Dark Brahmas, Buff, White and Partridge Cochins, Spangled, Golden and Silver Hamburgs, Pure White-faced Black Spanish, White and Brown Leghorns, Silver Grey Dorkings, Houdans, Silkies, Black-Red Games, Bronze Turkeys, Rouen and Aylesbury Ducks.

All from Premium Stock of Best Strains.

Fowls of above varieties for sale; also, Chicks in their season. Eggs packed with care and sent in rotation as orders are received. 1v9-16p-1f



Woodland Poultry Yards.

W. J. PRATHER, - - Proprietor.

PRICE LIST:

Light and Dark Brahmas	Eggs PER DOZEN	FOWLS PER TRIO
Buff and Partridge Cochins	\$3.00	\$15 to \$25
White Cochins	5.00	15 to 25
White Polands	6.00	15 to 25
Houdans	4.00	15 to 25
S. and P. Spangled Hamburgs	6.00	15 to 25
White Leghorns	6.00	12 to 20
Brown Leghorns	6.00	15 to 25
Golden Seabright Bantams	5.00	12 to 15
Bronze Turkeys	8.00	PER PAIR
Rouen Ducks	4.00	\$30
Black Cayuga Ducks	4.00	10
Aylesbury Ducks	4.00	10

Bronze Turkeys

12 Gobblers from 8 to 20 months old, 22 to 40 lbs each, for sale now. Hens 14 to 18 lbs.



Emden Geese

40 to 50 pounds per pair at maturity.

BLACK

CAYUGA DUCKS,

Games, Brahmas, Leghorns, Houdans, Bantams, etc.

Eggs, fresh, pure, true to name; well-packed so as to hatch after arrival.

For Illustrated Circular and Price-List, address

M. EYRE, Napa, Cal.

FERRETS.

RABBITS.

PIGEONS.

Please state where you saw this advertisement.

LOOK!



ALBERT E. BURBANK, Importer and Breeder of Fancy Fowls, Pigeons, Rabbits, etc. Also Eggs for hatching from the finest of imported stock. Eggs and Fowls at reduced prices. Send for Price List.

ALBERT E. BURBANK, 1v8-3m 43 & 44 Cal. Market S.F.

CALVERT'S



CARBOLIC

SHEEP WASH.

Sole Agency for California and Nevada

T. W. JACKSON'S,

416 Sacramento Street, San Francisco.



Rowlands' Macassar Oil.

Preserves, strengthens, and beautifies the human hair; makes it grow thickly on bald places, and eradicates scurf and dandruff; has been in use all over the world for the last seventy-five years. ROWLAND'S ESSENCE OF TYRE changes red or grey hair to a permanent brown or black. Sold everywhere by all druggists, chemists, and patent medicine dealers. Ask for Rowlands' articles, of 20, Hatton Garden, London, and avoid imitations.

FARM HANDS.

The Grangers' Scandinavian American Employment Office

Has been removed from 6 Leidesdorff to 608 Clay street, and Consolidated with the Pacific Coast Employment Office. This office is in constant communication with Grange Headquarters, and is the only one in the city conducted by members of the Order. Our facilities for furnishing MALE and FEMALE help of all kinds are unexcelled by any office in the city. Great care taken to select reliable help. Chinese Orders for Servants, in door and out, promptly filled.

In ordering help, be particular in describing work, wages, fare, etc., Real Estate and General Business Agency.

PHILIPS & FLIGGLE.

The Employment Office of Talbot & Co. has no connection whatever with the Granges.

I. G. GARDNER.

GREAT EASTERN AND WESTERN

Horse and Mule Market,

Cor. Fifth & Bryant Streets, San Francisco.

A choice stock of Carriage, Draft and Farm Horses on hand, and constantly being received from the East. All classes of Horses and Mules purchased and sold.

WASHBURN & RANDALL, Props

Hooper's South End Grain Warehouse

Japan and Townsend Streets.

SAN FRANCISCO, July, 1874. I beg to inform you I have leased the above first-class Fire-Proof Brick Warehouse, now being erected by Geo. F. Hooper, Esq., and will be ready to receive storage on the 1st of August. This warehouse offers superior inducements to parties desiring to store grain and flour, as it is situated on the Water Front, and on the line of the C. P. R. R. and S. P. R. R. It is well ventilated, rat proof, and combines all the modern advantages and improvements. Yours respectfully, JOHN JENNINGS.

Advance and insurance effected at the lowest rates. Storage taken at lowest current rates. 4v8-ft

FOR SALE

In the Riverside, New England and Santa Ana Colonies, in the valley of the Santa Ana river, San Bernardino county, California, twenty thousand (20,000) acres of clean, rich, level, valley land, with an abundance of water for irrigation. There is no better land in the State for the orange and all other semi-tropical fruits, and no finer climate in the world. Inquire of W. T. SAYWARD, 420 Montgomery street, San Francisco; S. C. EVANS, Fort Wayne, Indiana; C. I. HUTCHINSON, 314 California street, San Francisco; L. UPSON, General Agent, Riverside, San Bernardino county, Cal.

ALEX. BUSWELL,

BOOK BINDER, PAPER RULER

AND BLANK BOOK MANUFACTURER.

521 Clay Street, S. F.

Blank Books Ruled, Printed and Bound to Order

Banking.

Grangers' Bank of California.

(Incorporated April 27th, 1874.)

Offices, 415 California street, San Francisco.

CAPITAL authorized, \$5,000,000, in 50,000 shares of \$100 each. Subscribed, \$2,568,700. (Number of shareholders, 1,571). Paid up, \$481,200.

DIRECTORS—J. V. WEBSTER, President; CALVIN J. CRESSEY, Vice-President; C. S. ARNOTT, J. P. CHRISTMAN, G. W. COLBY, J. H. HILL, J. LEWELLYN, THOS. MCCONNELL, J. C. MERRYFIELD, A. F. WILCOIT, F. J. WOODWARD.

OFFICERS—Managing Director, CALVIN J. CRESSEY; Cashier, ALEXANDER WATSON; Secretary, FRANK A. CRESSEY.

The bank was opened on the 1st of August, 1874, for the purpose of affording additional banking facilities to the producers of the State, and for the transaction of ordinary banking business.

CURRENT ACCOUNTS are opened and conducted in the usual way, and interest allowed on the minimum monthly balance at the rate of three per cent. per annum.

CERTIFICATES OF DEPOSIT are issued in sums of \$50 and upwards, payable on 30 days' notice of withdrawal, bearing interest at rates varying with the current rate of discount.

TERM DEPOSITS are received in gold, silver or currency, and interest allowed as follows, namely: Three months, six per cent. per annum; six months, seven per cent. per annum; one year, eight per cent. per annum.

COLLECTIONS are made throughout the State on the most favorable terms.

DISCOUNTS—The bank advances on real estate in the different counties, on merchandise and grain in warehouse, etc., with a fair margin, charging a uniform rate of one per cent. per month. Discount days, Tuesday and Friday.

ALEXANDER WATSON, Cashier.

California Farmers Mutual Fire Insurance Association.

Office, 6 Leidesdorff St. - San Francisco.

Directors:

A. WOLF, A. W. THOMPSON, I. C. STEELE, I. G. GARDNER, J. C. MERRYFIELD, J. D. BLANCHARD, G. P. KELLOGG, Treas.

Finance Committee:

I. G. GARDNER, J. C. MERRYFIELD, A. W. THOMPSON

Trustees:

J. M. HAMILTON, Lake Co. I. C. STEELE, San Mateo Co. J. C. MERRYFIELD, Solano Co. A. B. NALLEY, Sonoma Co. G. W. COLBY, - Butte Co. O. S. ARNOTT, Sta. Barba Co. H. B. JOLLEY, - Merced Co. A. W. THOMPSON, Sonoma Co. A. WOLF, San Joaquin Co. E. W. STEELE, S. L. Obispo Co. J. D. BLANCHARD, Pres't. W. H. BAXTER, Sec'y.

This association is organized for the purpose of affording the farmers of this State the means of safely insuring against loss by fire, at actual cost of insurance, without being connected with city risks. a572-1f

Office of Drain Pipe Works,

S. W. Corner Sacramento and Montgomery Sts., S. F.

DRAINS

CONSTRUCTED

In any part of the State, and

Work Warranted

E. T. MENOMY

Proprietor.

bp-cow-1 yr

Grangers' Business Association of California.

Principal place of business, City and County of San Francisco.

Notice is hereby given, that at a meeting of the Board of Directors of the Grangers' Business Association of California, held on the 7th day of April, 1875, an assessment of ten per cent., two dollars and fifty cents per share, was levied upon the capital stock of the corporation, payable May 15th, 1875, to Wm. Vanderbilt, Secretary of the Grangers' Business Association, at his office, No. 6 Leidesdorff street, San Francisco, Cal.

A stock upon which this assessment shall remain unpaid on the day fixed, to wit: May 15th, 1875, will be delinquent, and advertised for sale at public auction, and unless payment is made before, will be sold on the 15th day of June, 1875, to pay the delinquent assessment, together with costs of advertising and expenses of sale.

WILLIAM VANDERBILT, Secretary Grangers' Business Association of California.

Office—No. 6 Leidesdorff street, San Francisco, Cal.

PACIFIC POTTERY, SACRAMENTO.

MANUFACTURERS OF

Sewer Pipe, Drain Tile,

PLAIN FLOWER POTS,

FIRE BRICK.

JOHN B. OWENS, Agent,

No. 30 California Street, S. F.

PETERSEN'S

PATENT BEEHIVE.

For Sale at Geo. M. Wetherbee's Sawing, Planing and Turning Establishment, and Bee Hive Manufactory, 211 and 213 Mission street, San Francisco. Send for free illustrated circular, with "Treatise on Bees," to

P. O. PETERSEN,

Oakland Post Office.

CHEESE VAT FOR SALE.

One of the Celebrated Ralf's Cheese Vats,—five hundred gallons. Hoops, etc., new, and in perfect order. At a bargain. Enquire at the Carpet and Furniture Warehouse of

JOHN C. BELL.

Miscellaneous Notices.

LOOK TO YOUR INTEREST!



MANUFACTURED BY THE

PACIFIC RUBBER PAINT COMPANY.

For many years chemists and others have experimented in mixing India Rubber with Oil, Lead, etc., in order to produce a perfectly

WATER-PROOF PAINT,

And at last successful in their effort, have formed a chemical combination of Rubber with oil paints, which when applied becomes hard and elastic enough not to crack or peel, from the action of the atmosphere, with a gloss equal to work finished with varnish. The

Pacific Rubber Paint Company,

Of San Francisco, California, together with the RUBBER PAINT COMPANY, of Cleveland, Ohio, own all the patents covering perfect combinations like the above, which is known and sold by them as "Rubber Paint."

The great demand for the Rubber Paint induced this Company to purchase of the Cleveland, Ohio, and New York Rubber Paint Company, the patents for this paint, and are now manufacturing this paint in all colors, in large quantities, and have put the price below the best lead and oil paints. The Rubber Paint is prepared in Pure White, in all Cottage and other colors, comprising any number of different shades and put up ready for use, being a great advantage, as it can be spread by any one.

It Flows From the Brush Freely, Works Easily, and Settles Promptly. It is available for all kinds of Painting,

And may be used with equal advantage on iron, stone wood, brick, or plaster.

The Rubber Paint will cover more surface, cover it better, and last much longer than Lead and Oil. Two coats of the Rubber Paint is better than three coats of Ordinary Paint.

SAN JOSE, CAL., March 20, 1875.

PACIFIC RUBBER PAINT Co., San Francisco.—Gentlemen.—I have used and sold the Rubber Paint in this city during the last four years. We have about one hundred buildings painted with the Rubber Paint. Among the prominent ones are the State Normal School, Gates Institute, City Market; the residences of Josiah Belden, J. W. Hinds, President Gold Note Bank, J. R. Arquello, Santa Clara, etc. It has never failed to give satisfaction, with a test of from one to four years, so that its durability has been well tested. My sales last year were nearly five thousand gallons.

Truly Yours, AMASA EATON.

REFERENCE:

CAPT. EDWIN MOODY, San Francisco.
AMASA EATON, San Jose.
WILLEY & RINALDO, San Jose.
WALLACE EVERSON, Oakland.
F. K. SHATTUCK, Oakland.
ISAAC KNOX, ESQ.,

Office and Factory:

Pacific Rubber Paint Co.,

No. 207 Sacramento street,

SAN FRANCISCO, CAL.

mar27-ss

BRASS MOUNTED MICROSCOPES.

Just arrived, another lot of those Brass Mounted Microscopes. Just the thing to examine fungus in wheat, mites on trees, shrubs, etc. Sent free to any address on receipt of (\$1) one dollar greenbacks, postage stamps or silver.

Address, CHAS. P. KIMBALL,
513 Hayes Street, San Francisco, Cal.

CARD.

EXCELSIOR FORCE PUMP greatly improved. COPPER LINED BRASS VALVES AND VALVE SEATS every way equal to a BRASS PUMP. PRICES reduced. Send for Circular. BRITTAN, HOLBROOK & CO., Agents.

FARMERS' UNION.

SUCCESSOR TO A. PEISTER & CO.,

Cor. Second and Santa Clara Sts., San Jose.

CAPITAL, - - - - - \$100,000.
WM. ERKSON.....PRESIDENT
H. E. HILLS.....MANAGER

Directors:—Wm. Erkson, L. F. Chipman, Horace Little, J. P. Dudley, David Campbell, James Singleton, Thomas E. Snell, O. T. Settle, E. A. Braley.

Will do a General Mercantile Business, also receive Deposits, on which such interest will be allowed as may be agreed upon, and make Loans upon approved security.

Brittan, Holbrook & Co., Importers of

Stoves and Metals, Tinners' Goods, Tools and Machines, 111 and 113 California, 17 and 19 Davis streets, San Francisco, and 178 J street, Sacramento.

DUNBAR'S WONDERFUL DISCOVERY.

BETHESDA MINERAL SPRING WATER
Of Waukesha, Wisconsin.

We claim Bethesda to be a specific in all cases of Diabetes Inflammation of the Kidneys, Inflammation of the Neck of the Bladder and Urethra, Inflammation of the Bladder, Dropsy, Gouty Swellings, Stoppage of Urine Albumenuria, Ropy or Cloudy Urine, Brick Dust Deposit; Thick, Morbid, Bilious and Dark Appearing Urine, with Bone Dust Deposits; Burning Sensation with Sharp Pains when voiding Urine; Hemorrhage of the Kidneys, Pain in the Kidneys and Loins, Torpid Liver Indigestion, Calculus, and Female Weakness.

There is no remedial agent known to man that can cure the foregoing diseases as effectually as Bethesda Water. This fact has been demonstrated wherever the water has been used according to directions, which can be had at the General Agents' by application to them. The water is sweet and pleasant to the taste. It can be drank at all hours. Why should any one suffer while this Water is so easily obtained?

DUNBAR, HENDRY & LAVERY, Sole Agents for Pacific Coast,

fb27-cow-bp-3m

107 STOCKTON ST., SAN FRANCISCO.

BOWEN'S PREMIUM YEAST POWDER.

Bowen's Premium Yeast Powder.

Bowen's Premium Yeast Powder.

Bowen's Premium Yeast Powder.

Bowen's Premium Yeast Powder.

Best in the World! Every Can Guaranteed!!

For Sale in Every Village, Town and City on the Pacific Coast.

Ask Your Grocer for it.

Manuf'd by BOWEN BROS., 432 Pine St., S. F., and 11th & 12th Sts., Oakland

J. Y. WILSON. WM. FAULL. W. L. MERRY

WILSON, MERRY & CO.,

Provision Packers

And Dealers in

SALTED AND SMOKED MEATS,

Lard, Etc.

PROP'S BLACK POINT PACKING HOUSE.

We respectfully call the attention of Farmers and Stock Raisers to the fact that we are always prepared to purchase hogs, cattle and sheep at full market prices, for Cash, and shall be glad to answer promptly any inquiries addressed to us on the condition of the Market.

Office No. 223 Sacramento St., Near Fr. nt.
San Francisco.

14 GMG OZ.

STEARIC ACID
CANDLES
GEO. M. GRANT & CO.
PHILADELPHIA.

The Candles sold under the above well known 'brand' are made only of Pure Stearic Acid, twice hydraulic pressed, are not cheapened by adulteration with crude material, and upon burning, give a large and brilliant flame, without running. 13v9-2ambp

J. M. NEVILLE.

G. H. BRYANT

NEVILLE & CO'S FACTORY

113 Clay and 114 Commercial Sts.,

SAN FRANCISCO.

BAGS of All Kinds,

TENTS, All Sizes and Descriptions.

HOSE for Hydraulic Use.

CANVAS, All Numbers.

TWINE for Sewing, Etc.



5,500 ACRES

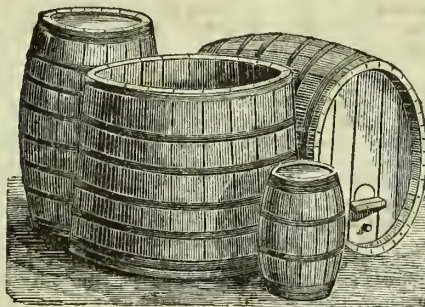
Of the best portion of the old NOMELOCKEE RESERVATION, in Tehama County, for sale very low; only five dollars per acre; one-third down, one-third in one year and one-third in two years, with interest at one per cent. per month. Will be sold all together or in two parcels. This is one of the finest tracts of grazing land in Northern California; is abundantly watered by numerous perpetual springs and has two miles of the Elder Creek, a clear mountain stream. Its grass never fails from drouth, and is of the best quality for sheep and has no clover hurr. 800 acres of level plow land; timber for posts, fuel, etc. Enquire of ALLEN WILCOX, Los Angeles, or F. B. WASHINGTON on the tract, twenty miles west of Tehama.

A GOOD BARGAIN.

\$500 will buy a good, pre-emption claim of 160 acres in Monterey County, with a good Dwelling House that cost more than that amount, situated one-half a mile from the Los Angeles Stage Road, and about the same distance from the line of the Southern Pacific Railroad. Apply to

MRS. ROWLANDSON,
On the Premises, San Antonio, Cal.

DAVID WOERNER,



COOPER,

No. 104 and 112 Spear St., San Francisco.

Wine Casks, Tanks, Tubs, Pipes, Beer Barrels, etc., Manufactured at Short Notice and LOW RATES.

LUMBER for CASKS, etc., TANKS, etc. Steamed and Dried if required.
cow-hp.

LEVI, STRAUSS & CO.,

Patent Riveted

Clothing,

14 & 16 Battery St.,

San Francisco.



These goods are specially adapted for the use of FARMERS, MECHANICS, MINERS, and WORKING MEN in general. They are manufactured of the Best Material, and in a Superior Manner. A trial will convince everybody of this fact.

Patented May 12, 1873.

USE NO OTHER, AND INQUIRE FOR THESE GOODS ONLY.
cow-hp

The National Gold Medal

WAS AWARDED TO

BRADLEY & RULOFSON

FOR THE

BEST PHOTOGRAPHS

IN THE

UNITED STATES,

AND THE

VIENNA MEDAL

FOR THE BEST IN THE WORLD.

No. 429 Montgomery Street,

cowbp

San Francisco, Cal.

SUPPORT HOME INDUSTRY.

WHEATEN STARCH,

MANUFACTURED BY

J. JOHNSTON.

SAN JOSE, - - - - - CALIFORNIA.

This starch is made from the best of wheat, and is used by the laundries and hotels, who pronounce it Superior in Strength and Fine Satin Gloss to any imported starch—one pound being equal to one and a half pounds of Eastern starch.

ENCOURAGE HOME INDUSTRY.

C.C. Burr & Co's



Mustard

50 per cent. Better than any

Imported Mustard.

Ask Your Grocer for it.

9v6-cow-bp.



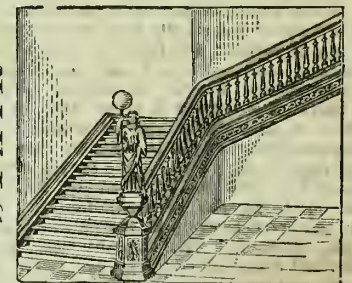
This is a Sure Cure for Screw Worm, Scab and Foot Rot in Sheep. It also kills Ticks, Lice, and all Parasites that infest Sheep.

Prevents scratching and greatly improves the quality of the wool. One gallon of the Dip properly diluted with water will be sufficient to dip one hundred sheep, so that the cost of dipping is a mere trifle, and sheep owners will find that they are amply repaid by the improved health of their flocks.

This Dip is guaranteed to cure when used according to directions, and to be vastly superior to Corrosive Sublimite, Sulphur, Tobacco, and other remedies which have heretofore been used by farmers.

Circulars sent, post paid, upon application, giving full directions for its use, also certificates of prominent sheep growers who have used large quantities of the Dip, and pronounce it the most effective and reliable known Cure and Preventive of Scab and other kindred diseases in Sheep.
mr13-hp

SANBORN & BYRNES,



Mechanics' Mills, Mission Street, Bet. First and Fremont, San Francisco. Orders from the country promptly attended to. All kinds of Stair Material furnished to order. Wood and Ivory Turners. Billiard Balls and Ten Pins, Fancy Novels and Balusters.
25v8-8m-bp

SEEDS.

PLANTS.

OF EVERY VARIETY.

Fresh and reliable, such as experience and care only can select.

GRASS AND CLOVER SEEDS, KENTUCKY BLUE GRASS, HUNGARIAN, ORCHARD, ITALIAN RYE, RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL, CHOICE CALIFORNIA ALFALFA, WHITE CLOVER, RED CLOVER, Etc.

Also, RAMIE, JUTE AND TOBACCO SEEDS; together with a fine and complete collection of TREE SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGANTEA, PINUS INSIGNIS, Etc.

For Sale, wholesale or retail, by

B. F. WELLINGTON,

(Successor to E. E. Moore).

425 Washington St., San Francisco.

22v7-ly

EMPLOYMENT.

I want 1,000 agents to canvass for the COMPLETE HERBALIST, and THE GROWING WORLD. I will give such terms and furnish such advertising facilities that no man need make less than \$200 per month and all expenses—no matter whether he ever canvassed before or not. Address Dr. O. PHELPS BROWN, No 21 Grand street, Jersey City, N. J., and full particulars will be sent by return mail.

PACIFIC RURAL PRESS,

A first-class 16-page Agricultural Home Journal, filled with fresh, valuable and interesting reading. Every farmer and ruralist should take it. It is immensely popular. Subscription, \$4 a year.

DEWEY & CO., Publishers,

No. 224 Sansome street, SAN FRANCISCO.

Continued from Page 329.

tance to furniture makers especially. We pass now to another family, the

Flax Family,

Linaceæ, containing about one hundred species of herbaceous or small, shrubby plants. They are usually rather a natural species, and are found mostly in temperate regions.

The only plant of importance to us is the common flax, *Linum usitatissimum*, which has been grown for nobody knows how long. We find the remains of linen fabrics among the remains of the pre-historic lake dwellings, in Switzerland. You know that within the last few years discoveries have been made about those lakes, archaeologists finding that some people lived there long before the period of which history gives any account. Among other discoveries are these remains of linen fabrics, proving the use of linen to have been known at a very ancient period.

Mummy Cloths

Are found in a good many cases to be made of linen also. The plant, now grown almost everywhere in the temperate climates, seems to be peculiarly well adapted to all climates, can be grown in temperate climates as well as down next to the tropics; it is accordingly grown very largely. Its fiber, which belongs to the outer portions of the stem, is separated from the remainder simply by breaking it up and then by carefully combing out the bark and woody portions.

In order to facilitate this it is subjected to a sort of rotting process, either artificial or in the open air, and is allowed to lie for some time, and then it is broken up.

Within the last few years some French chemists have been experimenting on the flax fiber, with a view to making it finer, as all our fiber is somewhat coarse. These chemists, knowing very well the nature of the fiber, that it is simply a hollow tube, tried soaking it in an acid solution, then washed this out, then used a certain alkaline solution, then soaked it in a solution of a carbonate—some carbonate which had a great deal of carbonic acid in it, etc., the object being to burst open the fibers. The result was that the flax was very much finer than it otherwise would have been. In that way the

"Cottonized Flax,"

As it is termed, was made. It was supposed at one time it would be brought into general use, but for some reason it is not used as much as perhaps it deserves to be. In some countries where flax is grown, the seeds are gathered and used for the manufacture of oil, which is the linseed oil so largely used in all paints, and the crushed seeds are manufactured into what is called cake meal, used for feeding cattle.

Passing to the next group, the tea family, the order *Camelliaceæ*, embraces trees or shrubs, mostly of the hotter parts of the globe—in fact none are to be found in the colder climates.

About 130 species are known, and of these the plant of most importance is the tea plant, *Thea Chinensis*, (fig. 2,) a small sized tree, growing ten or fifteen feet in height and supposed to be a native of Assam; it is a little country just north of the bay of Bengal; and from this country it was carried eastward into China and Japan. It is now grown largely throughout China, Japan and to some extent in some other countries with a climate somewhat similar. In your botanies you will probably find that instead of one species given for the tea tree you will have two species. This comes from a mistake made by the earlier botanists. We have in the markets what is called green and black tea. Botanists first thought that these were derived from different plants. Later investigations show that they are derived from the same species. In procuring tea, the process is this: simply gathering the leaves, and more or less rapidly drying of them. If they are dried very rapidly, so that no fermentation takes place, the product is green tea. If they are dried slowly, so that fermentation begins, the product is a black tea; and there you get the essential difference. There is another element that may come in to determine the greenness or the blackness of the tea. If the earliest leaves are taken, the first growth of small leaves, it is much easier to make green tea than if the old ones are taken. So that they do not need to be so careful with the early as with the later growth, to determine whether the tea shall be green or black, while from old leaves they cannot make anything but the black tea. Now, whether green tea is better because it has not been partially fermented, or not, I cannot say. Possibly it is, my taste would say that it was. [Student.—"I have heard, Professor, that green tea was the tea leaves dried on copper, and that there was an acid came out of the leaves, as it were, which gave color to the leaves."] That statement has been made, and if you attempt to look up the matter thoroughly, you will find that the observers make all sorts of statements. Now, in some books you will find that there is one variety of green and another variety of black. That, we know to be a misstatement. Others state that the difference is due to packing. That is, some observers, seeing the manner in which the natives separate the young leaves from the old, have been led to this conclusion. Others give another story, saying it was entirely due to manipulation. The fact is this, that all these might have something to do with the determining of the variety of the tea. Some very poisonous coloring matter has been used, so that a great many years ago many people stopped using green tea on that account; but the facts are as I have essentially given them. Peculiar varieties are obtained by selection and manip-

ulation; and under the head of manipulation, of course, you will get the use of coppers and all that. They are results of different methods of growing, or, just simply slight differences. Of course, you understand, only a slight difference would give another variety. Now,

Teas Can be Grown in California

And in very many States east of the Mississippi. This has been tried here, but labor is so costly we cannot manipulate it, cannot roll it, cannot gather it leaf by leaf; and you see that you cannot go and take a stem and take all the leaves. They have to be carefully picked.

So they found they could not produce tea after it was actually grown, and so, of course, it was given up.

Now, if our ingenious mechanics here can give us some machines which will do the work which has hitherto been done just by hand—all of our best teas have been rolled leaf by leaf—if that work

Can be Done by Machines

There is no reason in the world why we cannot grow all the tea wanted on this coast; also, all wanted on the Atlantic coast. There is a curious thing about this matter of tea. The demand is wonderful—almost beyond belief. We brought into this port here, last year, more than fourteen million pounds; of course a considerable amount of it was reshipped, sent across the continent; and yet, about a hundred years ago the first tea was taken to England; about a hundred years ago it was first taken to Europe and introduced there, and yet, in this time we have so changed our habits that the demand is such an immense one as I have just given you. Taking the statistics for the past few years I find that the proportion of value is about this: Fourteen million pounds of tea are valued at

About Five Million Dollars

When brought here. Now you see the immense profit that there must be in it right here at home. The more you study up this matter of tea the more you will be astonished, and you will find yourself especially astonished at the cheapness of it where it is produced. At the present time you can buy it for almost nothing. And then, when you consider the amount of labor given to it, and the transporting of it hundreds and thousands of miles, the only wonder is that we do not have to pay more for it than we do.

I will hastily call your attention to the remaining matter I have on the board, because I cannot spend any more time on this subject of economic botany. I have upon the board the mallow family, order *Malvaceæ*.

It is made up of herbs, shrubs and trees, including about 1,000 species. It has some representatives in the temperate regions, but they grow mostly in the tropics. Under these is the most important plant in the world, the cotton plant, *Gossypium herbaceum*, growing in places about five or six feet in height. It produces cotton which is made up of little fibers. It is found native in the East, in the Asiatic countries and in the tombs of the Incas; in Central America and in Mexico we find the remains of cotton fabrics. The question is, how they got there. It is cultivated now almost all over the globe, and very largely in the United States. It is biennial, triennial, or annual, just as it is treated. The one that we have specimens of here is the species called *herbaceum*, and is the one mostly grown. They plant it in the East about as they plant Indian corn, in March or April, and pick it along in the latter part of the year. In the Mississippi valley it yields 357 pounds per acre, that is about a bale per acre. In 1858, 3,000,000 bales were produced there. Now, to illustrate the dependence that agricultural labors have upon mechanical inventions, I simply will call your attention to the invention of the cotton gin. In 1793 Whitney invented a machine for separating the seeds from the cotton fiber. If you try by hand to do that, you will find the process tedious. Before he invented that machine it took a man about a day to get out a pound of cotton. By his machine, after it was improved a little, a man was able to separate 300 pounds, so that it increased one man's usefulness just three hundred fold. The next thing that is needed, and the thing that will make it possible to grow cotton in California, is a

Machine to Pick the Cotton.

It will not do to cut the whole growth down and take it to the barn or stack to be afterwards separated. The field must be gone over time after time, and if when the pods burst open, rain comes, there is danger of their being spoiled. The need now is, for some Eli Whitney to get up, or invent, something by which this can be easily gathered. Its culture in California will have to be deferred until that time; you cannot do the work cheap enough, unless you can train Chinamen. But I am told after a time they become as well accustomed to demand high wages as other people.

This, (alluding to specimens,) is the California cotton, very good, too.

Under the poppy family, *Papaveraceæ*, we have a hundred species, milky, narcotic plants, including the one of greatest importance, the opium plant, *Papaver somniferum* of Asia Minor and India.

Under the magnolia family, we get trees again, and the most important is this great soft wood tree of the east, the tulip tree; or white wood, or yellow poplar (*Liriodendron tulipifera*), the best soft wood, perhaps, in the world; grown only in the United States, east of the Mississippi river.

PATENTS & INVENTIONS.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

[FROM OFFICIAL REPORTS FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.]

By Special Dispatch, Dated Washington, D. C. May 11, 1875.

FOR WEEK ENDING APRIL 27, 1875.

POTATO DIGGER.—James J. McKenror, S. F., Cal.

COMBINED BLOTTER, PAPER CUTTER AND RULER. Frank R. Angell, Los Angeles, Cal.

WAGON JACK.—Wm. Henry Horn, Santa Cruz, Cal.

*The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue. NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & CO., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with perfect security and in the shortest possible time.

MUSIC TEACHERS of experience pronounce Clarke's New Method for the Piano Forte, as beyond all comparison the best. Price, \$3.75.

WOODWARD'S GARDENS embraces an Aquarium, Museum, Art Gallery, Conservatories, Tropical Houses, Menagerie, Seal Ponds and Skating Rink.

No AGENTS are authorized to receive subscriptions for this paper at less than our advertised rates.

The Russell End-Shake Thresher.

Read what Farmers and Threshers Think of it.

COULD HAVE GOT WORK FOR SIX MORE.

PRINCETON, COLORADO Co., Cal., July 27, 1874.

Messrs. Treadwell & Co., San Francisco—Dear Sirs: The Russell Separator does the best work—cleans the grain better, breaks less wheat (it does not break any), and sacks more than any other machine, enough to pay for the threshing. I could get work for six more machines if I had them. Yours truly,

JOHN JOHNSON.

NEVER A CENT FOR REPAIRS.

HOBART, Cal., September 9, 1875.

Messrs. Treadwell & Co., San Francisco—Gents: The Russell 36-inch Separator with Laufenburg's Patent Shoe and Pitt's Improved 12-horse Mounted Power I purchased from you in 1873, has been all that could be asked for, and has given universal satisfaction wherever used—the End-Shake Shoe alone being worth the money paid for the whole rig. It has never cost a cent for repairs; for saving grain and doing good work it has no equal—never clogging—as hundreds can testify who have seen it working. And would also say the Mounted Power is perfection, running the two seasons without breakage or expense, being very light of draft. I can also add that my Separator had plenty of work, when machines having the side-shake, had to lay up.

A. ELLDRED.

HAY and WOOL PRESSES.

The Fastest, Strongest, and Best Portable Hay Press in the World is the

PRICE, or PETALUMA PRESS.

400 in Use.

Bales from 12 to 20 tons per day.

Price, \$450, Cash.

The Most Simple, Compact and Effective Cheap Press Known is the

IMPROVED ECLIPSE,

Eight feet six inches high. Weighs 2,000 pounds. Bales from 10 to 18 tons per day. Price, \$300, Cash.

The above machines are delivered at the Factory, San Leandro, Cal.

For further information or for illustrated circulars that answer all questions relating to the above Presses,

Address **Price Press Co.,**

Office with BAKER & HAMILTON, 17 Front Street, S. F.

THE CALIFORNIA STANDARD BURLAP SACK COMPANY OF SAN FRANCISCO.

Now offer for sale their GRAIN BAGS, 22x36 and 20x36, sewed by Machinery with the best of Flax Twine, warranted not to rip in filling, the stitch being the same as the Dundee hand-sewed Sack. The sewing has been examined by good judges, and pronounced superior to any other.

SAMPLES SENT ON APPLICATION AT THE

Factory, No. 36 Clay Street.

A. J. GOVE, Superintendent.

For Sale in Quantities to Suit by

I. FRIEDLANDER,

Cor. California and Battery Sts.,

SAN FRANCISCO, CAL.

A NEW DISCOVERY

To Save Time and Labor.

The Magical Effect of

ENGWER'S PURE BORAX SOAP

Is wonderful. Washes without much rubbing. Every one knows the value of

AMMONIA and BORAX

For Washing Purposes;

This Borax Soap is principally composed of the combination of the two ingredients, so that it entirely does away with hard labor. A trial will convince any one of its superior qualities. Warranted to give satisfaction and not to injure the finest fabric. Ask your Grocer for

Engwer's Pure Borax Soap.

IF HE DOES NOT HAVE IT, ASK HIM TO GET IT.

GRANGER SOAP.

Once Used, Always Used.

Manufactured by

FALKINBURGH & CO.,

Oregon Street, near Front, San Francisco, Cal.

LOCKE & MONTAGUE,

IMPORTERS OF

Stoves, Ranges,

Tin Plate, Sheet Iron, Iron Pipe,

House Furnishing Hardware,

Plain Japanned,

Planished and Stamped

TIN WARE,

112 and 114 Battery Street.

SAN FRANCISCO.

Nurserymen.

Established 1853.

Stocks for Nurserymen.

Plum Seedlings, Miroholan, the best French stock, does not sucker.....	\$50 per 1000
Apple Seedlings.....	10 per 1000
Pear Seedlings.....	10 per 1000
Cherry Seedlings, Mazzard.....	12 per 1000
Cherry Seedlings, Mahaleb.....	20 per 1000
Walnuts, English, 4 to 6 feet.....	15 per 100
Cork Elm, best Elm, 4 to 6 feet.....	15 per 100
Blue Gum or Encalyptus, in variety.....	5 to 10 per 100
Magnolia Grandiflora.....	
Magnolia Acuminata.....	
Magnolia Tripetala.....	
Golden Arborvitae.....	
Crataegus Arbutifolia.....	
Swedish Juniper.....	
Irish Juniper.....	
Heath-leaved Arborvitae.....	
Heath, Mediterranean.....	\$2 50 per doz.
Laurustinus, 6 to 12 in.....	2 50 per doz.
Making the growth of Oranges and Lemons a specialty. I have imported from all sources the best known varieties, and now offer five thousand Grafted Trees properly worked and twice transplanted at \$18 per dozen. Grafted oranges by the 100 or 1,000 at prices on application. The amateur in want of large PALMS, large AURICARIAS, large CAMELIAS and large TREE FERNS, a good stock on hand; also the usual large stock of fruit and ornamental trees.	

LARGE STOCK

BERNARD S. FOX,
San Jose, Cal.

THOS. MEHERIN, Agent, 516 Battery Street, San Francisco.
1852. 1875

ESTABLISHED IN 1852.

THE STOCKTON NURSERY

I have for sale for the ensuing season a Large and Well Grown Stock of All Varieties of

FRUIT TREES,
SHADE,
ORNAMENTAL
and
EVERGREEN TREES.

GREENHOUSE PLANTS, AUSTRALIAN GUMS,
SHRUBS, ROSES, BULBS, PALMS.

Send for Catalogue.

W. B. WEST, Stockton, Cal.

KING'S NURSERY,

Twenty-fifth St., bet. Telegraph & Broadway
OAKLAND, CAL.

Fruit, Shade and Evergreen Trees, Shrubs, Roses, Etc. Persons laying out new grounds would do well to call and examine our stock before purchasing elsewhere. A large stock of EUCALYPTUS, including BLUE GUM Pines and CYPRESS from six inches to twelve feet high. Acacias in Variety; Young Stock for Nurserymen; Pines and Cypress; Three Thousand Magnolia Grandiflora from six inches to five feet high; Camelia Japonica; Gardenia Cape Jessamine; Araucaria in Variety, at Lowest Rates. Orders attended to. Address, M. KING, Nurseryman, 349-3m Oakland, Cal.

Thos. A. Garey's

Semi-Tropical Nurseries.

LOS ANGELOS, CAL.

Forty varieties of the Citrus family of semi-tropical trees, including many rare and beautiful, as well as useful and profitable kinds.

Grafted and Budded Orange Trees a specialty. Trees packed to arrive in good order. Priced Catalogue sent free. Address me P. O. Box, 528, Los Angeles city, Cal.
2378-6m

THOS. A. GAREY.

PEPPER'S NURSERIES.

(Established in 1858.) PETALUMA, CAL.
Green Houses and Tree Depot corner Washington and Liberty streets.

4 Green Houses. 3,000 feet of Glass. Fruit Trees a Specialty.

We offer for sale at lowest market rates a general assortment of Fruit and Shade trees, small Fruits, Vines etc. Evergreen trees and Shrubs in great variety. Green House, Conservatory and Plants, Roses, etc. We are now ready, Nov. 1st, to fill orders for trees and plants. Catalogue and price list furnished on application.

Address, W. H. & G. B. PEPPER,
1978-4f Petaluma, Sonoma Co., Cal.

SUPERIOR FRUIT TREES

TRUE TO NAME.

A fine collection of Evergreen and Deciduous Trees. Australian Gum Trees in variety, by the hundred or thousand. Monterey Cypress in quantities and sizes to suit all. Orange and Lemon Trees at reduced prices. A general variety of Nursery stock.

Also, Rhubarb and Asparagus root.

T. CORLEY,

315 Washington Street, S. F.

PEACHES, APRICOTS AND PLUMS

are specialties at the Vacaville Nursery, Sonoma Co., Cal. Alexander's Early, Thurber and Peento in bud, 50 cents each. Beatrice, Louise, Rivers' Early, Lord Palmerston Lady Palmerston, Prince of Wales, Princess of Wales, Picquet's Late, Lady Parham, Italian Dwarf, Golden Dwarf, Bloodleaved and many other varieties of new Peaches in bud, at 25 cents each; Trees of Alexander's Early, \$1 each. Beatrice, Plowden, Fremontson and a general assortment of the leading varieties, 25 cents each; Apricots, Plums, Apples, Pears, Cherries, Almonds, Figs, Olives, Pomegranates and including most of the leading varieties of fruit for sale at low prices. D. E. Hough, Vacaville, Sonoma Co., Cal.

Agricultural Articles.

KIMBALL CAR, CARRIAGE

-AND-

AGRICULTURAL IMPLEMENT

MANUFACTURING CO.,

Cor. Bryant and Fourth Sts., San Francisco

The CALIFORNIA TUBULAR IRON AND WOOD FRAME HARROW—two, four and six-horse Iron Harrows, \$60, \$70 and \$75. Wood Frame Harrow, \$10 less on each size than the Iron.

The Harrow has an easy seat for the Driver. The middle section rests on three wheels with wings hinged on each side.

By use of Levers the Driver in his seat can raise or lower the Harrow, regulating at will the depth of the teeth in the soil, and in the same manner fold or raise the wings from the ground so as to drive from the road to the field, saving the use of a wagon.

Our CALIFORNIA SCRAPER is also made for the use of the Driver, enabling one person to ride, manage the team and do the work.

Is adapted for leveling and preparing the surface of the soil for irrigation. And for making roads, removing dirt from ditches, cleaning barn yards, sheep corals, etc.

The IMPROVED EAGLE HAY PRESS—Best in use on this Coast. Cheap, Economical, Powerful, and easily repaired.

Will press bales weighing from 250 to 325 pounds, using less rope than any other press.

Three men with a good team of horses will bale from 10 to 15 tons per day.

Adapted for baling wool, hides, cotton, rags or moss. Price, \$250. Weight of press, 2,500 pounds. Please send for circulars.

VINE AND FRUIT GROWERS,

TO RAISE LARGE CROPS

YOU MUST IRRIGATE.

To irrigate successfully, you must have the power that does not give out when the wind falls.

Laufkotter Bros. & Churchman's Horse-Power,



(PATENTED FEBRUARY 13TH, 1872.)
Never fails to supply more water than four or five Windmills, even supposing you had all the wind you want. It is also suitable for running light machinery, such as Barley Cracks, Corn Shellers, Fanning Mills, Grain Separators, or for Sawing Wood. They are never failing, cannot get out of order, easily worked, substantial, and always give satisfaction wherever they have been used. One horse can easily work two 6-inch pumps, with a continuous flow of water. Force Pumps, from 3,000 to 10,000 gallons per hour. WINDMILLS of all kinds manufactured to order. Wells Bored, Windmills and Horse-Powers set in any part of the State, and repairing of all kinds done.
Manufactured and for sale by

LAUFKOTTER BROS.,

77-2m-3m Cor. J and 10th Sts., Sacramento.

O. OREGO.

S. C. BOWLEY,

CREGO & BOWLEY,

Importers and Manufacturers

-OF-

CARRIAGES and WAGONS,

No. 9 Merchant's Exchange.

CALIFORNIA STREET.....SAN FRANCISCO

Keep constantly on hand top and open Buggies, top and open Rockaways, Jump-seat Buggies, Track and Road Buggies, Skeleton Wagons, Basket Phaetons of the very latest styles and finest workmanship. We would call particular attention to our fine stock of light Road and Trotting Wagons, made to order by the following celebrated makers: Charles S. Coffey, Camden, New Jersey; Helfield & Jackson, Rahway, New Jersey; Gregg & Bow, Wilmington, Delaware; And the first-class makers, which we are prepared to sell on the most reasonable terms.

Also, a large assortment of single and double Harness, of the most celebrated makers: O. Graham, New York; J. R. Hill, Concord; Pitkin & Thomas, Philadelphia.

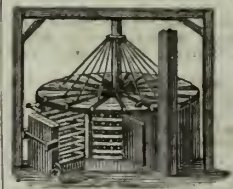
Also, a full assortment of Dress and Light Blankets, Fur and Lap Robes, Whips, Halters, Surchings, etc., at wholesale and retail.

OREGO & BOWLEY,

No. 9 Merchants' Exchange, California street,
2476-3m San Francisco.

Plummer's California Fruit Drier.

PATENTED DECEMBER 29TH, 1874.



This is the Cheapest and Most Economical, Largest Capacity, and Most Speedy DRIER, and gives the fruit a better flavor than any other machine ever invented. It only requires a shed to work under; 2d—has boiler, engine, and steam pump for irrigating or other purposes, in connection with the Drier or separately; 3d—the cost is one-half less than any other of the same capacity, and there is no danger of burning the fruit. A sample machine is in full operation at our factory, No. 31 BEALE ST. Address, SPAULDING & BRO., San Francisco, Cal.

Send for Circulars.
Allen's Planet Jr. Silver Medal
HAND DRILLS and WHEEL HOES. These new styles. They "sow like a charm," and hoe better, easier, and six times faster than the hand hoe. S. L. ALLEN & CO., Mrs. 1198 4th St., Phila., Pa. Circulars free. A LIVE AGENT WANTED in every town.

J. WAGNER,

MANUFACTURER OF

FRENCH BURR MILL STONES AND PORTABLE MILLS.



General Mill Furnishing. Portable Mills specially adapted for Farmers' use. 113 and 115 Mission street, San Francisco. 13v7-3m-2am

MATTESON & WILLIAMSON'S



Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m

MATTESON & WILLIAMSON,
Stockton, Cal.

LANE & BODLEY,

John & Water Sts., Cincinnati.

Manufacturers of the Best

FARM ENGINE.

Mounted and ready for use. Send for our illustrated catalogue.

Farmers and Threshers

WISHING TO HAVE

Straw Burning Engines

For next season must engage them soon, as most of those now building are already sold. These engines for Repairs should be sent in now. A number of Second-hand Engines—taken in exchange for "Straw Burners"—for sale cheap. For particulars and prices, address: H. W. RICE, Haywood, Alameda County. 23v8-3m

PUMPS SLUTHOUR PUMPS

Are sold 50 per cent. under any other in the market, considering the amount of water obtained for the power applied. They have now been fully tested for IRRIGATION, and entire satisfaction is guaranteed. Call and see them, or send for Circulars.

J. M. KEELER & CO., Agents,
306 California Street, San Francisco.

ENRIGHT'S

Portable Strawburning Engines

Burns either Straw, Wood or Coal, Manufactured and sold by JOSEPH ENRIGHT, Jose. mr-13-3m



THE CELEBRATED H. H. H.

HORSE MEDICINE

IS STILL AHEAD OF ALL OTHERS.

The Wholesale Druggists of San Francisco, give evidence of its appreciation throughout the State, by and rapidly increasing orders. We pledge it a cure for SPAVING, WIND GALLS, SWEENEY, SCRATCHES, LAME AND STIFF JOINTS, CALLONS, LUMPS, AND ALL BLEMISHES, SPRAINS OR BRUISES.

It is a household blessing and no family should be without a bottle in the house. For sale everywhere.

WILLIAMS & MOORE, Prop'rs.,
25v8-6m Stockton, Cal.

Commission Merchants.

H. K. CUMMINGS,
1858.

H. K. RALSTON,
1875.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission House,

ESTABLISHED 1858.

No. 424 Battery street, southeast corner of Washington, San Francisco.

Our business being exclusively Commission, we have no interests that will conflict with those of the producer.

MOODY & FARISH,

Wool Commission Merchants,

No. 210 Davis Street, S. F.

Eureka Glycerine and Carbolic Sheep Dip; Sheep Shears; Wool Sacks and Twine constantly on hand at low prices.

Davis & Sutton, Commission Merchants, For California Fruits; also for the sale of Butter, Eggs, Cheese, Hops, Green and Dried Fruits, etc., 75 Warren street, New York. Refer to Anthony Halsey, Cashier, Tradersmen's National Bank, N. Y.; Ellwanger & Barry, Rochester, N. Y.; O. W. Reed, Sacramento, Cal.; A. Link & Co., Pacific Fruit Market, San Francisco, Cal.

Union Box Factory,

GEO. W. SWAN & CO.,

115 and 116 Spear St., bet. Mission & Howard
SAN FRANCISCO.

Apple, Pear, Plum, Peach, Cherry, Grape, Orange, Lime and Wine Cases.

Tomato, Potato, Fig and Raisin Boxes.

Strawberry, Raspberry and Blackberry Chests and Drawers, and Baskets for all kinds of Berries.

Peach and Picking Baskets, Butter Chests and Boxes, Cheese Boxes, Square and Round Egg Carriers.

Drums for Figs, Cherries, Raisins, and for other Dried Fruits.

Free Packages—Boxes not to be returned—a good article, costing less than Sawed Boxes.

Lard Caddies, Coffee and Fruit Caddies.

Turkey and Chicken Coops, Bee-Hives, Etc.

Packing Boxes for Dry-Goods, Cigars, Candles, Candied Fruits, Honey, Macaroni, Crackers, Sugar, Soap, Boots, Etc.

In fact, every style of Boxes manufactured in the Union, and turned out in the Best Style at Favorable Prices. Orders from the country well attended to

THE ALDEN

FRUIT PRESERVING COMPANY, OF CALIFORNIA.

OFFICE, 426 MONTGOMERY ST., S. F.

Our improved apparatus will do one-third more work than that erected last season, while our prices have been materially reduced. A portion of the purchase money may be paid in the products of the Alden factories. We guarantee against infringements. The Alden is the oldest, the best and the cheapest process known for preserving fruits, vegetables, meats, etc.

It would be unwise to purchase the new and untried dryers before they have demonstrated their superiority by at least one year's regular work. Send for our circulars.

J. & P. N. HANNA,

IMPORTERS AND DEALERS IN

Grain, Wool, Ore and Bean Bags, Flax, Cotton and Linen Twines.

COTTON, DUCK, RAYENS AND DRILLS—33, 36, 40 and 45-inch Wide Duck; 8, 10, 12 and 16-Ounce Duck.

Ore Bags, Tents and Hose
MADE TO ORDER.

Nos. 308 and 310 DAVIS ST.,

San Francisco, Cal.

LAND PLASTER.

(Sulphate of Lime.)

This fertilizer is especially well adapted to California lands and climate, and is destined to be used to immense advantage.

PRICES GREATLY REDUCED.

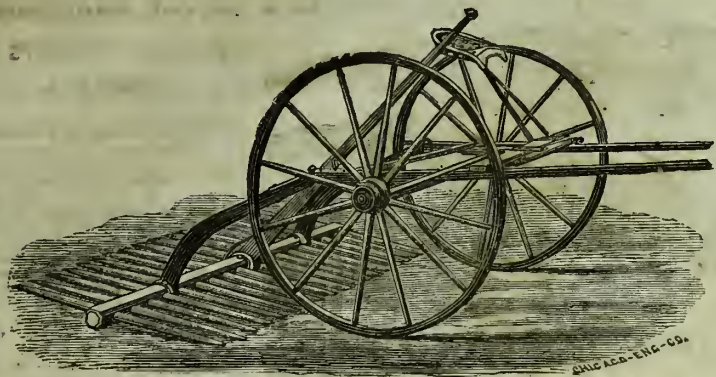
In bulk, \$10 per ton; in barrels or bags, \$12.50.

Golden Gate Plaster Mills.

LUCAS GESNER & CO.,

215 and 217 MAIN STREET, SAN FRANCISCO.

Geo. W. Chapin, Real Estate Agent, 434 Montgomery St., San Francisco, buys and sells Ranches in all parts of the State. City Real Estate exchanged for country property. MONEY LOANED. Post Office Box 112

Keller's Sulky Revolving Hay Rake

Has no equal in the world. It is the best winnowing rake made. It is the best bunching rake made, and the price is ten dollars less than any other sulky rake. Send for the Sulky Revolving Rake and get the best.

OUR IMPROVED HAINES HEADER,

WITH COMPOUND LEVERAGE, DOING AWAY WITH ALL BALLAST OR WEIGHTS, Either on the Lever or Frame; will be appreciated by Header Men. Also, a new device for driving the Knife, making the Header run one horse lighter than any header ever imported. The driving of the Reel is an improvement; in turning, the Reel runs just as fast as when driving straight ahead. The improvements will be found to meet the demands of California trade.

Our Excelsior Mowers are Improved for 1875.

Three Sizes—"Junior," "Medium" and "Senior."

J. I. CASE & CO.'S

SEPARATORS AND STEAM ENGINES

Are the Largest Works of the Kind in the World.

The Threshers and Engines are Made Expressly for this Trade.

Pitts' Down and Mounted Powers, "Foust's" Hay Loader, and Keller & Co's Sulky Revolving Hay Rake,

An age in advance of any other Rake. See these goods before buying; they can be found with us only. Our Stock of Implements is Complete.

Haines' Header Sickles, Excelsior Mowing Knives, Buckeye Mowing Knives, (Nos. 1 and 2), Sections, Rivets, Etc.

THRESHERS, ENGINES, POWERS, HEADERS, REAPERS, MOWERS, RAKES, HAY PRESSER, CORN PLANTERS, CORN CULTIVATORS, CORN SHELLERS, OILER AND WINE MILLS, HAY CUTTERS, DERRICK FORKS, BELTING, PUSH CARTS, PLOWS, HARROWS, CULTIVATORS, GORHAM SEEDERS AND CULTIVATORS COMBINED, FISH BROS., PACIFIC WAGONS, REGULATOR WINDMILLS AND PUMPS, ETC.

KELLER CO., - - - 43, 45 & 47 J Street, Sacramento, Cal.
SEND FOR CIRCULAR.

PUMPS.

"PEOPLE'S PUMP."

THE FARMERS' FRIEND.

BEST IN USE FOR HOUSE AND STOCK PURPOSES. CAN

BE USED WITH HOSE FOR WASHING

WAGONS, WINDOWS, AND

WETTING GROUNDS.

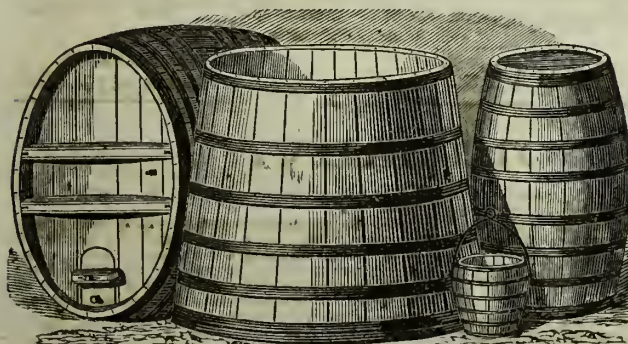
SEND FOR CIRCULAR.

DUNHAM, CARRIGAN, & CO.,

Successors to

Conroy, O'Connor & Co.,

San Francisco

CALIFORNIA WINE COOPERAGE AND MILL CO.

30, 32 & 34 Spear St.
M. FULDA & SONS
Proprietors.

Manufacturers of

WATER TANKS. SHIP
TANKS, MINING
WORK,

WINE, BEER AND LIQUOR
CASKS, TANKS, ETC.

Cooperage and Tanks, Steamed
and Dried Before or After
Manufacture at Reason-
able Rates.

Sawing, Planing, etc.
at Short Notice. cwwbp

The attention of Wool Growers is continually invited to the

**Thoroughbred Stock Bred and Kept on the
MERINO RANCH,**

Situated at Niles, Alameda County, Cal., only five minutes walk from the station, junction of San Jose and C. P. R. R. Parties desiring to visit our ranch can leave San Francisco at 3 o'clock P. M., and have an hour at the ranch, returning on Overland train at 6 P. M. Or coming out in morning, can return to city at 11 o'clock A. M. The proprietors make the

THOROUGHbred SPANISH MERINO SHEEP A SPECIALTY,

Believing them to be the BEST SHEEP IN THE WORLD, and are constantly receiving fresh importations from Addison County, Vermont.

Our flock are all Imported Sheep, and have no superiors in the United States. We always have on hand choice young RAMS and EWES, of all ages, for sale at Reasonable Prices, giving time, if required, to responsible parties. City Office—315 California Street, San Francisco.

SEVERANCE & PEET,

Importers and Breeders of Spanish Merino Sheep.

**DURYEA'S SATIN GLOSS STARCH**

AND

DURYEA'S IMPROVED CORN STARCH

Are the Best in the World.

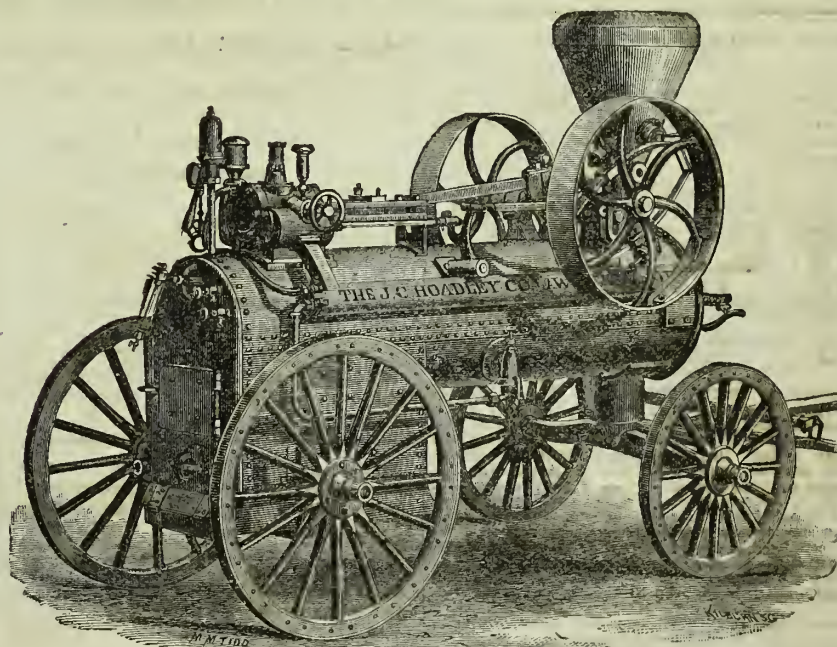
USE IT ONCE AND YOU WILL USE NO OTHER.

For Sale by All Grocers.

FAC-SIMILES OF PRIZE MEDALS AWARDED THE

The Messrs. Duryea have succeeded in refining Starch to entire purity and developing its entire strength and clearness, an improvement that will be readily perceived in the great strength of the Starch, the superior luster that it gives, and in its reliable uniformity. Much of the so-called starch contains from one-fourth to one-third foreign matter, readily perceived by sourness, mustiness, or a golden yellow tinge, peculiar to inferior starches, a color not desirable for one's linen, but inseparable from the use of common starch. They pledge themselves to the public to give uniformly superior article, from one-fourth to one-third stronger than any other starch in the world, and at the common market rates.

EGERTON, ALLEN & CO., Sole Agents for the Pacific Coast
San Francisco, California.

The Hoadley Regulating Cut-off**THRESHING ENGINES.**

The above cut represents the Hoadley New Style Threshing Engine, 15-horse power, with Patent Cut-off Governor. We also have the same style and size, with HOADLEY'S NEW PATENT STRAW-BURNING FIRE BOX. This new Engine has been thoroughly tested, and we are prepared to warrant it to give satisfaction. OUR GUARANTEE GOES WITH EVERY ENGINE INTO THE FIELD. This new engine is fitted out complete, with High Seat, Foot-Board for Driver, California Roller Brake (not shown in engraving), Iron Hub, Patent Wheels, Forged Bent Axle, and all Mountings in Perfect Order.

THE

Hoadley Straw-Burning Threshing Engine

Is no heavier than wood-burning engines of same power, and is unquestionably the Best Threshing Engine in the world. It is Lighter, Better Made, Safer, and will do More Work than any other engine of same size and price ever built. THIS FACT IS INDISPUTABLE.

Farmers and Threshers desiring to buy Straw-Burners for coming season, should secure their Engines Early, as the number is not large, and many are already engaged. All Engines will be tested in presence of customers, when required. Send for Circular and Prices. Address,

TREADWELL & CO., Sole Agents, San Francisco.

RELIABLE.

THE

UNEQUALED.

ONE PRICE DRY-GOODS HOUSE,

42, 44, and 46, Third Street, San Francisco.

THE GOODS ARE ALL MARKED, IN PLAIN FIGURES,

PEIXOTTO & SILVERMAN

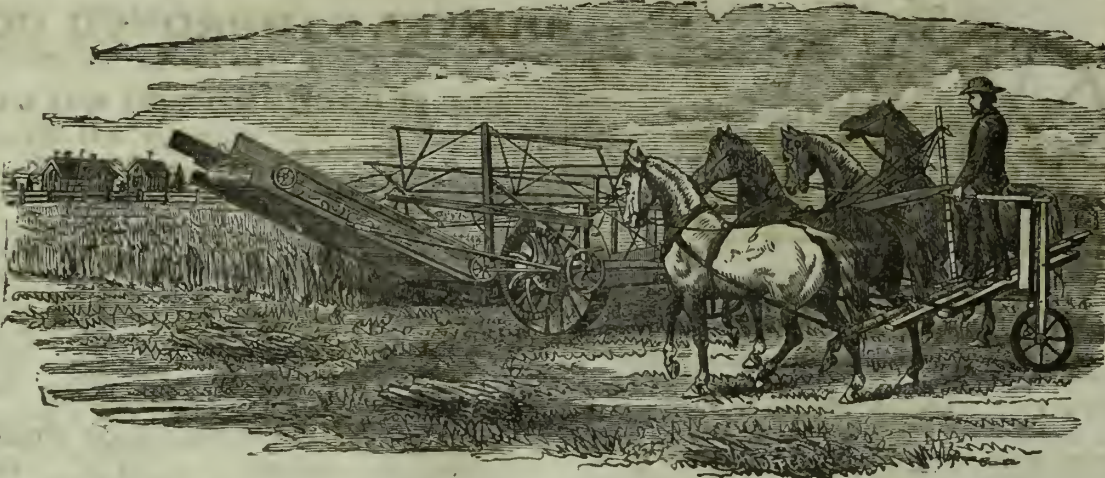
BAKER & HAMILTON,

Nos. 7 to 19 Front Street, San Francisco.

Nos. 9 to 15 J Street, Sacramento.

Haines' Genuine
Double Gear Headers
and The Sweepstake
Single Gear Header.

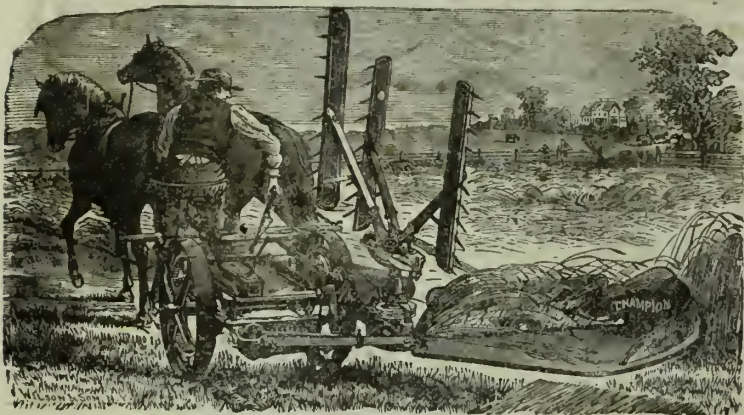
After years of thorough trial in the field, we last season concluded to adopt the Single Gear Header, and have been to great expense in having it improved from patterns furnished us by the best of our practical farmers in the State. The Sweepstake Single Gear Header, with Center Pitman, for 1875, is the most complete and perfect Header that has ever been manufactured. The Drive Wheels are strong headed and made higher than the wheels on any other Header in the market; consequently they run lighter, by fully one horse. The Draper is extra strong, and completely protected from wear by the very best Leather Belting. The Guide Wheel and Boxes are greatly improved, making the steering much easier for the driver. These improvements will be appreciated by all Header men; the main frame is braced and trussed with 3/4 inch round iron, in such a manner that it is impossible for it to warp, or spring out of shape or true. The Finger Bar is sloped downward and backward to the Draper, so that it is impossible for the short heads of grain to shake off the Finger Bar to the ground. The Pole is coupled to the main frame in an improved manner, by means of two strong pieces of wrought iron and two castings, with holes in them in such positions that the back of the main frame can be raised or lowered, or the Finger Bar be raised or lowered, just as is desirable. The Reel is braced with 16 inch iron rods, running from the spokes of the center wheels to the hubs of the end wheels, always holding the Reel firm, and preventing it springing end-ways and breaking the slats, or pulling them off the spokes by catching on the arms that support the Reel. The Spout is attached in such a manner that it can readily be taken off or put on without all the trouble and labor that was necessary with the old style of Spout.



SWEEPSTAKE SINGLE GEAR HEADER.

Champion Reapers and
Mowers.

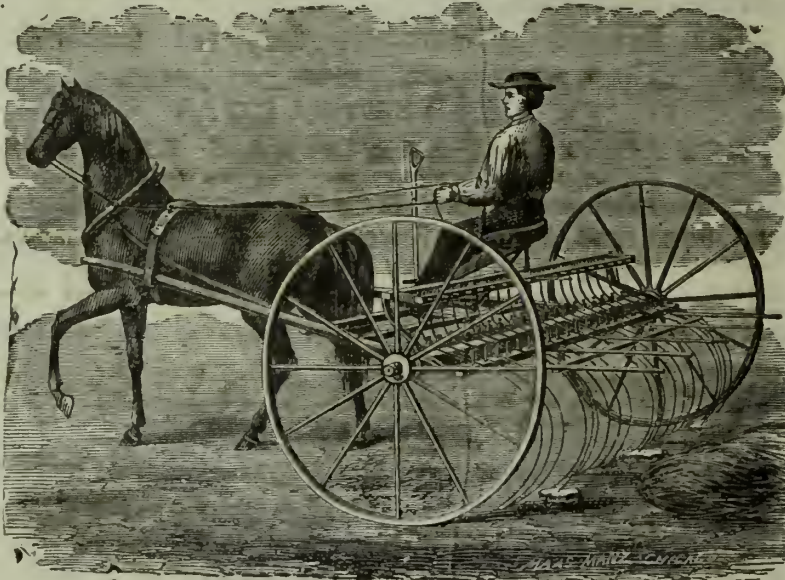
All the Champion Machines have the wrought iron frames, and the wrought iron connection of the cutter bar to the main frame, securing the greatest strength and durability, with the least weight. The stationary wrought iron axle for the driving wheels close away with two necessary boxes, so there are but three boxes on the frame to wear. All of these machines have the Dropping Drag Bar for tilting the points of the guard fingers down to cut lodged grass close to the ground, or turning them up to pass rough or stony places. The cutter bar can be entirely raised from the ground to pass over obstructions while cutting, and it folds conveniently for transportation. The Champion does its work smoothly and well, and can always be depended on; is light of draft, and easily managed by the driver. The system of duplication is complete; any part may be replaced or exchanged while in the field, without the use of any tools except the monkey wrench, which is supplied with the machine.



"CHAMPION" SELF-RAKER IN DOWN OR SHORT GRAIN.

HOLLINGSWORTH SULKY RAKE.

It has Adjustable Compound Spring Teeth, 20 in each of them, being quite independent of the other. The upper teeth are made of the best quality of steel, and are set in any train upon the 100 h when each spring steel is in other direction. The Teeth are of Spring Steel, it is tempered in oil. Every inch of steel serves as a spring. By virtue of this adjustability the teeth can readily be raised or lowered to suit the condition of the soil, and other Rake's purposes. It is substantially timbered, and finished in the best manner possible. At all of the field trials they have always come out victorious.



HOLLINGSWORTH SULKY RAKE.

Sole Agents for Ames' Celebrated

Straw and Wood-Burning Engines.

1874. GUIDE AND CATALOGUE 1875. FREE.

To persons contemplating purchasing I will send my ILLUSTRATED, DESCRIPTIVE CATALOGUE and GUIDE to the VEGETABLE and FLOWER GARDEN WITHOUT CHARGE. It contains the most extensive and valuable list of



Flowering Bulbs, Roots and Plants, Semi-Tropical Trees, Ornamental Shrubs, Fruit and Shade Trees, etc., ever offered in this market. It tells how to successfully grow the Australian Blue Gum, the Monterey Cypress, Pine, etc., and the proper method of Cultivating Tobacco on this Coast.

My stock of seeds is in part my own raising and in part direct importations from the best European and Eastern growers, and is unsurpassed in all respects by that offered by any other establishment. 100,000 Australian Blue Gums and Monterey Cypress in boxes at from \$30 to \$50 per 1,000, raised at my own Nursery at San Rafael.

R. J. TRUMBULL,
Grower, Importer, Wholesale and Retail Dealer in Seeds, Shrubs, Trees, etc.
427 Sansome street, S. F.

20v8-6m-16p

San Francisco Land Agency,

E. L. SMITH & CO., Managers.

A Medium for the Sale of Every Description
of Real Estate.

Office, No. 331 Kearny Street.

WANTED—DESIRABLE LANDS AND FARMS
in every county of the Pacific Coast, at SAN FRANCISCO
LAND AGENCY, No. 331 Kearny street.

WANTED—SHEEP AND SHEEP RANGES
For Sale at SAN FRANCISCO LAND AGENCY, No.
331 Kearny street.

EMIGRANTS INTENDING TO SETTLE IN
Oregon or Washington Territory furnished with full
information, free of charge, at SAN FRANCISCO LAND
AGENCY, No. 331 Kearny street.

NOT WANTED—WORTHLESS LANDS, BAD
titles or exaggerated descriptions, at SAN FRANCISCO
LAND AGENCY, No. 331 Kearny street. E. L. SMITH
& CO., Managers.

NEW CROP OF

BLUE GUM SEED.

GRASS AND CLOVER SEEDS.

FLOWER AND VEGETABLE SEEDS.

TREE AND FRUIT SEEDS.

OF EVERY DESIRABLE VARIETY AND OF THE
BEST QUALITY; OFFERED AT WHOLE-
SALE OR RETAIL, BY

GEO. F. SILVESTER,
SEEDSMAN,

No. 317 Washington Street,

SAN FRANCISCO

24v8-tf

Dewey & Co. { 224 } Patent Agt's.

{ SANOME ST }

Improve Your Poultry,

IT COSTS NO MORE TO KEEP GOOD FOWLS THAN POOR ONES!

OAKLAND POULTRY YARDS,

Cor. 16th and Castro streets, Oakland, Cal.

Eggs for Hatching

GUARANTEED FRESH,

True to Name,

And to carry safely to any part of the country.



BRAHMAS, LIGHT AND DARK LEGHORNS, WHITE
AND BROWN HOUDANS, COCHINS, BUFF,
BLACK AND PARTRIDGE POLISH, GOLD
AND SILVER, HAMBURG GOLD-
EN, SILVER AND BLACK
GAMES, AYLESBURY AND
ROUEN DUCKS, DOR-
INGS AND BAN-
TAMS.

BRONZE TURKEYS, the Largest in America.
Send for Circular to

GEO. B. BAYLEY,

Box 639, San Francisco.

16p

Calistoga Real Estate Company.

Calistoga, with a population of about 800 persons, is a village watering place at the head of the valley of Napa, in California. It is four hours' travel north of San Francisco by steamboat and rail.

Its shipping port is Vallejo, on the bay of San Francisco, forty miles distant by rail. It lies at the head of the most charming valley in the State.

THE BEAUTIES OF NAPA.

In traversing this thirty-seven miles of fertile dale, the eye never ceases. If one ascends the sides of the leafy mountains that bound the valley on either side, whether looking up the valley or down, and from whatever point of view, the scene is one of ravishing beauty.

Mounting the summit of St. Helena, which towers over all, far to the east the snowy Nevada's bound the view; and to the west spreads the Pacific ocean, with its winged ships and its blue horizon. To the north are the vast forests of Mendocino, its stately trees, turned to shrubbery and Clear Lake in its pride of expanse dwindled to a mill dam.

THE WARM SPRINGS.

From the beauties of Calistoga we turn to its other attractions. The estate covers 2,000 acres of fertile land. Its warm springs are crowded with invalids, who flock to its healing waters, and who return cured of their rheumatism, their dyspepsia, their torpid livers and their tender kidneys. The medicinal elements of the hot springs are principally iron, magnesia and sulphur. In this climate, the season of watering places is prolonged.

THE SURROUNDINGS.

By consulting a map it will be apparent that Calis-

toga is destined to become a commercial town of importance. It is the center to which converge innumerable highways leading to many of the richest cultivated valleys of California.

INDUSTRIAL ENTERPRISES.

A new industry is now being introduced at the head of the valley of Napa, which will give easy employment to all the boys and girls, and consequently it will support other new industries. It is but the beginning of many others. Three miles below Calistoga is selected as the site of a large factory for saving and canning fruits and vegetables that now go to waste, and encouraging the production of more. In no part of California can these healthful elements of human food be cultivated more cheaply or more abundantly. Considering the depth of its rich soil, its prolonged season, and the extraordinary vegetable growth in this country, one acre may be considered equal to three elsewhere this industry is carried on in the Atlantic States. If irrigation be wanted, artificial waterflow may surely be found all along the valley, for it is backed by mountain ranges full of living waters.

MINES:

GOLD AND SILVER AND QUICKSILVER.

Calistoga is the center also of a great mountain range rich in mines of cinnabar and silver. Already its furnaces are producing mercury, and the product is increasing yearly. A number of valuable mines are now being profitably developed in the region around the base of Mt. St. Helena, at Pine Flat, on the Great Geyser road, and near Billie's Mill, on the Clear Lake road. All of these are from ten to fifteen miles beyond Calistoga, to which point their products come, and from

which their supplies are carried. The deposits of cinnabar occur in well defined veins, and as they are now being scientifically developed they bid fair to rival in productiveness the celebrated mines of New Almaden.

CALISTOGA REAL ESTATE CO.

The splendid property above described, containing 2,082 acres, divided into town lots, suburban lots, country seats, hotel property and farm tracts, has been bought by the above named company, and is now offered for sale to the public.

The Capital Stock of the Company is
\$1,000,000,
Divided into 20,000 Shares of \$50 Each.

The sale of a certain number of shares has been authorized by the Board at the rate of
Twenty-five Cents on the Dollar, Making
12.50 Per Share.

By an arrangement between the former owner and the present company, no portion of this land or the proceeds of its sale, is consumed by expenses or in even the smallest degree diverted from the use and benefit of the stockholder.

Whoever buys Stock in the Company receives his pro rata share of this property, with its Crops and Rents in the meantime, without any cent of deduction for expenses of any kind, even including Taxes. And

this, too, no matter how valuable the property shall become.

Unlike the homestead schemes which have heretofore attracted our people, this plan gives home and interests in and adjoining a town already built, where trade and growth are already assured, and where daily increase gives promise of greatly added values to all its property. It is a division of this ripened heritage that is now offered to the subscribers.

TRUSTEES:

E. W. BURR,
President Savings and Loan Society.

C. HARTSON,
President Bank of Napa.

J. B. FRISBIE,
President Vallejo Commercial Bank.

JULIUS WETZLAR,
Pres. Capital Savings Bank, Sacramento.

COLONEL J. P. JACKSON,
San Francisco.

WILLIAM H. MARTIN,

GENERAL AGENT,

No. 1 Webb Street, Cor. California, S. F.

PACIFIC RURAL PRESS

Volume IX.]

SAN FRANCISCO, SATURDAY, MAY 22, 1875.

[Number 21

Wilson's Snipe.

The summer range of Wilson's snipe, or the common American snipe, shown in the engraving, extends northward far beyond the limits of the United States. In the mountains of the Carolinas, at all times, they may breed; but it is thought that this only occurs in the cases of individuals disabled for flight. In Virginia and Maryland, they sometimes breed, and in Pennsylvania rather more frequently. In Maine they are abundant in the breeding-season, but are still more plentiful in Nova Scotia, where they lay their eggs early in June. Swampy parts of the extensive moss-covered marshes, in elevated situations, afford them places of security and comfort. Their nests are mere hollows in the moss, scantily inlaid with grass. The eggs, which are three or four in number, and placed with the small ends together, measure $1\frac{1}{4}$ by $1\frac{1}{4}$ inches, are pyriform, with the tips somewhat inflated; ground color, yellowish olive, pretty thickly spotted and blotched with light and dark umber, the markings increasing in size as they approach the large end, where they form a circle. The young leave the nest as soon as hatched, when they are covered with down of different tints of brown and greyish yellow, and seem at first to feed on minute insects, but soon, like their parents, probe the ground in the oozy mire for worms, roots of vegetables, etc. When they breed in the Middle States the meadow is apt to be chosen by them, though they also nestle in mountain districts.

In the Western country this snipe arrives from the North early in October, and resorts to meadows watered by warm springs and the borders of ponds and small secluded rivulets, or to the corn-fields after a protracted rain, but never to the woods or to any place from which they cannot easily escape when approached. In Kentucky, they often remain in large numbers all winter, but are more plentiful further south, especially in Louisiana, where they are named *cache-cache* by the creoles. In the latter State they are often met in flocks of fifty or one hundred, as well as in South Carolina, where they delight to resort to the rice fields, but are there shot in large numbers. So determined are they in their preference for a particular locality that the noise and destruction produced by the gunner do not cause them to leave it, but simply to rise into the air, cry *wau-aik*, and soon fly back to the spot. When flying to a distance they ascend very high, and, by regular and quickly repeated beats of the wing, proceed in a somewhat devious course; yet they travel a great distance in a short time. Although they perform their migrations singly, or in small parties of a single family, there is yet a continuous plan, since a region of country is soon filled with them. When surprised by the sportsmen or other enemy, they rise at a spring, take a zig-zag course, emit their cry, and at a distance of sixty or seventy yards ascend into the air; but sometimes they squat with great pertinacity. When they alight on a chosen spot they examine the place very warily before probing the ground in quest of food, ground worms, or the juicy and slender roots of different vegetables.

Mr. Audubon states that many epicures eat snipe and woodcock with all their viscera, regarding the intestines as the most savory parts, though worms, leeches and insects have been the food of the birds.

Returning to the North in autumn, they arrive in Pennsylvania about the middle of March, a month later in Maine, and eight or ten days later in Newfoundland or Labrador. They often mate before going southward in spring. It is believed by some that the male assists in incubation, but this is not certain. During the period of incubation the male produces a few pleasing, rolling notes, while sporting in the air, and even while attending his mate upon her nest at night. The young acquire their full plumage during the first year of their existence.

THE GRASSHOPPER SCARE.—The grasshopper reports that go hopping about the country are getting to be about as numerous as the insects

The Crops this Week.

It will be seen by reference to our Correspondence and Agricultural Notes departments, that the wheat crop is rather improving in condition. Our agents and others with whom we have conversed on this subject confirm our previous statements concerning the "spotted" condition of the grain crop, and that any estimates about the amount in the aggregate would be mere random shots.

People seem to be restricting, slightly, their estimates of the fruit crop. Until recently, it was supposed that apples had not suffered in a perceptible degree from the reverses of the season; but we find a growing impression that the apple crop will scarcely be above half the average, though it is expected that it will be of a superior quality. The prospects for a

Ward's Fertilizer.

This is a comparatively new fertilizer, at least in commerce, and has worked itself into its position by its own merits. Our attention was first called to it by the circular of "Ward's Fertilizer company" of Boston, Massachusetts, and we learn that it has been used in California for several seasons, having been introduced into this State by J. T. Ward, of Napa county, nephew of the originator of the fertilizer.

Its history at the East and in California has been almost identical. Andrew H. Ward, of Massachusetts, compounded this fertilizer for his own use, being in need of something of this character. Having achieved the point for which he was striving, he was satisfied with using it on his own premises, making no effort to get it into notice. Its merits, however, soon became known, and from a limited use in his own neighborhood, it gradually became recognized as a standard commercial fertilizer, and all without any effort in this direction on the part of the originator, who rather avoided than sought any business enterprise in the matter, and finally disposed of his interest in the article to the present company.

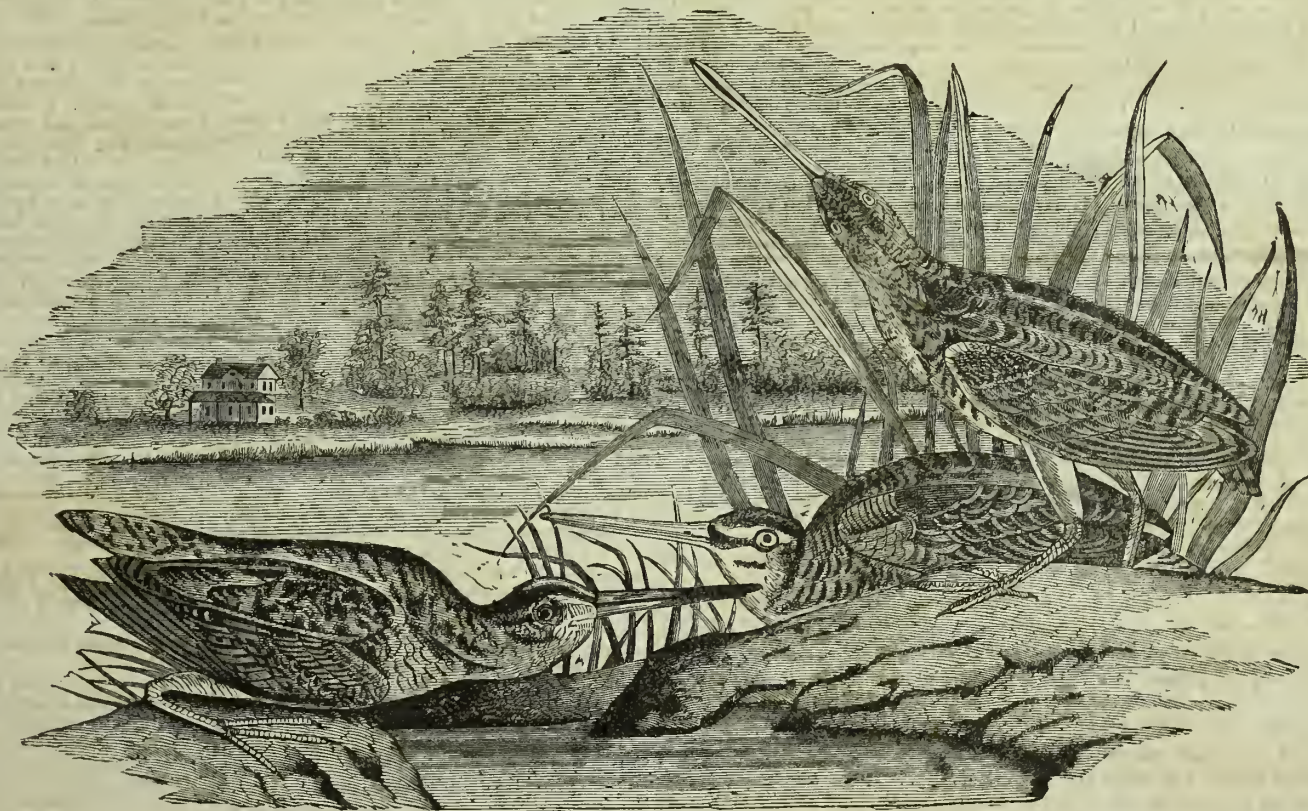
Mr. J. T. Ward, of Napa, having obtained from his uncle a knowledge of the method of making this article, has pursued precisely the same course in regard to it; using it on his own place exclusively, until those who became acquainted with its merits made it more extensively known and used. Mr. R. J. Trumbull, of this city, has obtained from this gentleman the method of compounding the Ward fertilizer, and has the article for sale; having first satisfied himself of its merits, after using it on his own grounds.

Its friends here do not expect to have it come into present use in California for strictly agricultural purposes, but for lawns, gardens, potted plants, etc.; there is an urgent want for something of this kind, and those who are acquainted with this material declare that it supplies this want.

In its concentrated form it is sold in San Francisco at \$80 per ton; in small quantities at the rate of \$100 per ton; reduced to the condition suitable for application, \$20 per ton. As a merchantable article the concentrated form is the most convenient on account of handling and transportation.

In London, New York and other large cities, the demand for prepared soil for potted plants has created a legitimate business of this character, and people go and procure food for their horticultural favorites the same as they would for their other pets. Mr. Trumbull proposes to supply this want in San Francisco, keeping on hand soil properly prepared for this purpose by the use of the Wood fertilizer. This material will be sold at twenty-five cents per four quarts. We shall look with some interest for a report from those who have used this article.

THE Marysville Appeal of Saturday announces that during the favorable weather the grain crops in Yuba and Sutter counties have greatly improved, and the yield will be much larger than was anticipated three weeks ago.



WILSON'S SNIPE.

to which they relate. Reliable authority contradicts the reports that grasshoppers are already becoming troublesome in Missouri, Kansas, Nebraska and other Western States. Gov. T. O. Osborn of Kansas, who arrived in San Francisco this week says: That so far as Kansas is concerned, some two weeks since some grasshoppers were hatched down in the southeastern corner of that State near Fort Scott, but that a cold rain set in and continued for two days, which had the effect of killing all the young hoppers; that they only occurred in patches at intervals throughout a small area of country, and that there is no fear whatever that anything like the plague of last year will be witnessed the coming season, and that in Nebraska the same state of affairs exist. Another fortunate circumstance is that the weather has not been of such a mild character thus far this spring as to encourage the growth or manufacture of the lively insects.

IN swamp land district No. 221, San Joaquin county, the work of reclamation has been completed by the finishing of the dam at Fourteen-mile slough. The estimated cost of this work was \$2,300, but its actual cost, complete, has been \$2,133.85.

ALTHOUGH considerable rain fell in Calaveras on the 7th inst., the Chronicle thinks it came too late to be of material advantage to the crops.

good grape crop are improving each week. Present indications give hopes of a yield above the average. Peaches it is thought will be about half a crop. Peaches not more than one-third. About one-fourth of a plum crop is looked for.

Apricots promise much better than at the opening of the month. Then it was supposed that this fruit was wiped clean out of the season's products, but it is found that some places escaped the frost entirely, and half a crop is looked for. Cherries give assurance of a full crop and strawberries about three-quarters. Almonds, like apricots, were supposed at one time to be entirely destroyed, but like them they give a better promise at present, and it is now hoped that there will be half a crop of almonds.

We hear of no particular change in grazing feed, while the hay harvest is rather promising. Will our hop growing friends please inform us of the condition of their yards?

At a meeting of the Southern District agricultural society, held lately in Los Angeles, it was resolved to increase the capital stock from \$50,000 to \$60,000. The date for holding the next fair was not decided upon.

TWENTY-NINE car loads of spring clip wool have been shipped from Visalia depot in two months, equal to about 1,500 bales, or about 450,000 pounds.

CORRESPONDENCE.

Live Fences and Hedges.

MESSRS. EDITORS.—Please inform me if they grow Osage orange for hedges in your section of the country. I send you a specimen one year old. If not introduced, I would state that if there is a demand for cheap life-lasting fences or hedges that will turn any kind of stock, and be an ornament to the farm, we are prepared to introduce it and to take contracts at the following rates: We will break up and prepare the rows in prairie land and furnish the plants; attend them three years, leaving them in a condition that the fourth year they will turn any kind of stock, for the low rate of fifty-five cents per rod. It will do the third year, but we warrant it the fourth year.

We will also furnish farmers the hedge plants one year old at \$2.50 per thousand; or two years old, \$3.00. Twenty-five hundred will plant a quarter of a mile, or 10,000 to the mile; then the farmer can do his own work, as we will furnish free to each customer full directions for raising the hedge from the first to the last step. If you could place this in some farmers' paper and ask for a response, I suppose it would receive attention, and we could ascertain if such a movement would be acceptable to the farming community. It is a perfect success in Central and Southern Illinois, Kansas, Missouri, and other States where introduced.

We put our figures low and mean business. I have had five years' experience in the work of raising and selling plants, and raising hedges, and have seen it in use successfully the last fifteen years, and still increasing in favor with farmers. If there is an opening, we will come out this summer and prepare for work. A board fence will cost not less than \$2.50; a rail fence, \$2.00; and a rock fence not less than \$3.00 per rod; while we propose to grow a life-lasting fence at a cost not to exceed in any kind of land seventy-five cents per rod. We should be pleased to receive a reply to this at the earliest practicable moment. The plant is thorny and perfectly hardy. It would probably take less time in California than in the places mentioned. T. B. BLAKE.

Olathe, Johnson county, Kansas, May, 1875.

[The subject of live fences and hedges is attracting considerable interest of late in California, and the demand for such material, Osage orange in particular, is increasing. Whatever responses our correspondent may receive to the above propositions, we are disposed to the belief that Osage plants would find a sale in this State; but at what prices it would be impossible for us to state. We leave this matter with the nurserymen, dealers and farmers. The plants sent to the RURAL PRESS are about the size that would be wanted here for immediate setting for hedges and fences, while earlier stages of growth would probably be more acceptable to nurserymen.]

If this party expects to do anything in California in this line, he must wait at least until our winter rains commence. The present time, however, is best suited for a proper consideration of the subject.—Eds. Press.]

From Los Angeles County.

[By our own Correspondent.]

EDITORS PRESS:—Anaheim, southeast of Los Angeles twenty-five miles, and the present terminus of a branch of the S. P. R. R., is literally a town of vineyards. These are surrounded with hedges of willow or of Osage orange. Large Lombardy poplars, of a growth of about twelve years, line some of the principal streets. Orange groves also abound, all of which give the place a fresh and inviting appearance to the traveler, reaching it, as he does, after a ride over plains where scarcely a tree is seen for many miles. Here we had the pleasure of seeing the practical working of Mr. T. Carroll's box for transplanting trees, a good and efficient invention, and patented through the agency of Dewey & Co. The land here and in the surrounding country is generally good, and some of it of an excellent quality. Much of it produces well without irrigation. In many places water facilities are good and are gradually extending. A new ditch is already partially completed which will afford an abundance of water for a very large area. We passed some fine looking grain fields in this vicinity. Alfalfa grows luxuriantly and when irrigated can be cut from eight to ten times per year.

South of the New San Gabriel river there is an extensive scope of country thrown open for settlement. If the immigrant will avoid the alkali spots and the high, dry land, inaccessible to water, he cannot go far astray. In this part of the county there are a number of new and flourishing settlements, all within ten miles of Anaheim. As Mr. Howe, of Westminster, has recently written in reference to that colony, we cross the Santa Ana river to Richland, Tustin city, Santa Ana and to Gospel Swamp, a rich, beautiful and generally a well watered section, and in the judgment of your correspondent, one of the most favored portions of the county. Richland and Tustin,

lying somewhat nearer the mountains, appear both in soil and climate to be specially adapted to fruit. Although in their infancy, they are already dotted all over with young orange groves, orchards and vineyards. Santa Ana and Gospel Swamp are said to be at least equal to any other part of the county for large crops of corn—reaching, in rare instances, 130 bushels to the acre. It is here that pumpkins sometimes grow so large as to become inconvenient to handle. In all this region south of the Santa Ana river, grain and vegetables of nearly every kind do well, as also the castor bean, some 2,000 acres perhaps, being under cultivation the present season. Yours, truly,

Anaheim, California.

Fertilizers.

EDITORS PRESS:—I was very much interested in the article quoted from "Agricultural Department Report," in the last number, (May 8,) subject, "Fertilizers."

It is a well established truth that we learn more from a record of failures than from the successful experiments, we are so apt in the one case to ascribe to our superior knowledge or management a result which after all may have been accidental, and assume that to be true which is not yet proved; on the contrary, a failure stimulates to an earnest inquiry into the facts bearing on the case, so as to be able by reasoning to apply a remedy.

Reports quoted from Juniata, Pennsylvania, and Duplin, North Carolina, to the effect that "green manuring" is positively injurious, teach us nothing, as we have no account of the conditions necessary to a judgment—nature of soil and subsoil, whether moist or dry, previous cultivation, depth of plowing, etc.; in the absence of all these essentials, what do we learn? Only that certain parties tried green manuring and failed. The same rule holds in successful experiments, extraordinary crops for instance; we read that Mr. Blank has raised a very large crop, one that makes us long to go and do likewise, but at the outset, we are met with the fact that with the exception of the weight or measure of the crop we are in the dark; quality and kind of soil, depth of tillage, peculiar management, all are omitted, and herein lies the secret of the odium "book farming" has fallen into; for a crop raised in perfection on one kind of soil will not prove as successful on another of a very different character.

To return to the subject, "green manuring" is doubtless the cheapest and most readily applicable of all methods of supplying plant food. As a matter of course, there can be no uniform system until you can obtain a uniformity of soil and climate. Clover, buckwheat, peas, alfalfa and others are said to be the best because they possess the power or property of storing up nitrogen in a greater degree than others, and in the process of decomposition liberate it in a condition to unite with hydrogen forming ammonia to be assimilated by the growing plants. The stems of clover and the grasses also furnish the inorganic or mineral constituents required by the cereals. It is in the condition of green or growing plants that the expected benefit is to be derived, for in that state they contain much water and nitrogenous material and a sufficient degree of heat will induce rapid fermentation or decay when plowed under to a limited depth.

Now the question arises, how can it (green manuring) be made applicable here in California? (The tule lands and those readily irrigated are left out of this question.) A soil and climate is required with sufficient moisture and warmth to induce rapid fermentation in the mass of green vegetation buried beneath the surface; does California supply these requisites? Would not the long dry summers be unfavorable to such action? If turned under at the close of the rainy season, as soon as the ground was dry enough for the plow, would not most valley land (upland) dry out too quickly to permit the rapid decay necessary for the immediate utilization of this method of manuring? Would it not rather be that slow decay for which Liebig proposed the term *Eremacausis*, and consequently of no benefit to a present crop, but to one in the future? If turned in the fall or at the beginning of the rainy season, would not the grass, (with the exception perhaps of alfalfa) be in the condition of stubble too dry to readily decay? Would not the usually great excess of moisture and lower temperature accompanying the early rains seriously interfere with the process? But could this latter be called *green manuring*? It remains to be proved that alfalfa will grow readily on the dry and alkaline soil of the valleys. R.

[It was with a view to bring out suggestions like the above, and the experiments that will naturally follow, that the article referred to by our correspondent was prepared. We are pleased to observe that our friends are disposed to look before leaping in such matters; and from the tenor of the above, we infer that the writer is open to conviction; and we also believe that the questions with which he concludes his communication will be satisfactorily settled by practical experiments. Especially the last, for the fact is becoming more clearly demonstrated every season that alfalfa will find sustaining moisture in situations where scarcely any other cultivated plant can reach it.—Eds. Press.]

From Lake County.

MESSRS. EDITORS:—The Upper Lake valley, of Lake county, is one of those charming little spots of California where nature has done much and art little to beautify and adorn the landscape. The little town called Upper Lake is on the southwest side of the valley, and something over a mile north of Clear Lake. Owing to a long continued disquiet in the land titles, the settlers had made but little effort in the line of substantial and decorative improvements. But now, since the lands are surveyed and entered, a different feeling possesses them; an ambition to build up real comfortable homes. Scarcely any are to be found who are desiring to sell, or who think they could do any better elsewhere. Valley land is held at \$30 to \$60 per acre.

The valley, about six miles in diameter, nicely bordered on the east, north and west by broken hills, has already quite a large population of farmers, and a much larger area of arable bottom land may be secured by clearing off the dense growth of bushes and trees now growing along the banks of the creek that winds its way through the valley. The present season seems to be exceptionally dry, yet the crops are not a failure, but with the heavy later rains that they are expecting to fall on them soon, they will have a tolerably good yield from their late sowing.

Here, as elsewhere, the peaches are almost entirely destroyed by the frosts, and other varieties of fruit are also injured greatly. The town is yet in its infancy, but has some nice, comfortable buildings, two good hotels, four or five stores, mechanics' shops, two churches, etc. The district school, with one hundred and fifty pupils and two first grade teachers occupies very humble quarters for the present in the old "pepper wood" school house, a half mile out of town. The entire community seem united in the verdict that they have the very best of teachers and a good school, and that they will soon erect such a school building as the wants of their community require, and as one expressed it, that "we and our children will not be ashamed of."

The stages through from Cloverdale and Calistoga, connecting with railroads and through to the Bartlett, Witter and Pearson springs, with the daily mails and passengers, give the air of business and much real convenience. The health and pleasure seekers need not look for any more favorable locality than this vicinity. The various mineral springs are really highly medicinal, and withal a very agreeable beverage; the Pearson springs affording a variety of four kinds of mineral water, all agreeable to most people's tastes. I met at the springs some who were able to speak in very high terms of the curative properties and success of the springs where drugs had been used in vain for years. The camping facilities, the rough and grand mountain scenery, the abundance of game, and the good and successful endeavors of the host and hostess of the premises to make all boarders or campers happy, render this a favored and justly popular resort. Charges very moderate.

Dr. Witter's springs, also on the edge of Batchelor valley, are the most pungent and purely medicinal waters I have tasted, requiring more care in using them, but have given also proofs of great curative powers, especially in skin diseases and general purification of the blood.

Two miles distant from the Pearson springs is the Blue lake, or rather lakes, also a romantic and favored resort for health seekers. Mr. Graham is having fitted up an elegant farm residence on the shore of the principal lake and on the direct road from Ukiah to Lakeport. To see one of these elegantly fitted up homes of the mountain valley is a beautiful sight, and then to compare that with the same locality a few years since, when densely covered with trees and undergrowth of all varieties, gives a pleasant lesson in favor of physical courage and the wealth-creating power of pioneering energy. Many very excellent small garden farms are thus made in the little valleys between the mountains at a cost of \$20 to \$80 per acre for clearing. But with this small farm for grain and vegetables, they occupy large tracts of mountain range for hogs, goats, sheep or cattle, and in a few years have an elegant home and a very reliable means of making a livelihood.

Lake and Mendocino counties offer many opportunities for this kind of homes to be planted by those who have the will and the nerve. The population of this part of Lake county, is of a quiet, industrious kind. Most everywhere can be seen the poultry yards, with large promise of good time next Thanksgiving. One of your RURAL readers, Mrs. Rice, has already a family of over 800 spring chickens, and has not yet got fairly started for the season. The circuit preachers may be expected around soon. A majority of the people are from the West and Southwest; in the main, temperate and moral. Farms mostly small and products varied; aspirations, as regards wealth, quite moderate.

The county is now rejoicing in the compromise of the great suit of the San Francisco water company vs. Lake county, where damages of \$250,000 were compromised to settlement for \$30,000. More anon, C.
Upper Lake, Lake county, May 8, 1875.

From Duarte, Los Angeles County.

MESSRS. EDITORS:—I thought I would drop you a few lines in relation to our settlement, as we are in a growing and prosperous condition. This settlement is fifteen miles east of Los Angeles city and five miles north of El Monte, located on the east end of the San Gabriel fruit belt. Ten years ago this country was almost unpopulated; now we have a thriving community of about thirty families, and a good public school, with an average attendance of about thirty scholars, which we consider doing well in that line in so short a time. We also have church and Sunday school every Sunday.

As to crops, they look well. Our main crop is potatoes, but we can raise anything we plant, as our soil is of a rich, sandy loam, easily cultivated. We have out quite a number of fruit trees of all kinds. Our soil, climate and irrigating facilities are of great advantage for fruit growing, such as the orange, lemon, lime, peach, apple and pear; in fact, every kind that grows in Southern California will grow with us. The late frost, however, did some damage to the fruit, such as the peach, apricot and plum, but not so much as was at first supposed. The grain crop will make almost an average crop, but not quite so good as that of last year. As for myself, my crop is better than last year. I have forty acres, all in fine cultivation, fifteen in potatoes and the balance in various kinds of produce, all of which looks as well as heart can wish. We have a first-class blacksmith shop, as also a first-class hotel, the Heartsease House, which name was given it by some of its guests as very appropriate. Arrangements are already made for the enlargement of the house, which will be completed by the fourth of July next.

No more at this time. I wish you great success with your very interesting paper.

Duarte, May 10, 1875.

Wheat at Rio Vista.

EDITORS PRESS:—Some of your many readers may be interested in hearing about the grain prospects in the vicinity of Rio Vista and the Montezuma hills. Now, everybody knows where the Montezuma hills are, but everybody does not know how well the wheat looks or how happy the farmers are about there. Among other places, I visited the farm of H. R. Mathewson and was shown a field of wheat containing 800 acres. This wheat is about three feet eight inches high, and the heads stand almost as evenly as though it had been clipped with a header. The heads are long and full, the grain being hard in the dough and has that rich green color so essential to a good prospect just before it ripens. I measured some heads which were fully six inches long. In riding around and through this field, I did not see a bare spot of ground that would make the area of six inches square. Mr. M. is one of the oldest and best farmers in the State and believes that what is worth doing at all is worth doing well. I am glad to find a place where the crop is not badly affected by this unfavorable season, and I know you will feel like rejoicing with these farmers at their prospects of full pockets after harvest. H. W. RICE.

SAVING BOOT SOLES.—EDITORS PRESS:—In the number of the PRESS of April 24, is a question, also repeated in the number for May 1—"Hygienic Boot Soles." Is there any method of making the bottoms of boots impervious to moisture? There is a method (not original with me, however), that I have used for ten or twelve years past, that will make the boot soles as impervious to moisture as the top of a varnished table, and that is, to varnish the soles with common furniture varnish, brushing it over and when dry repeating it as often as it dries into the leather; when it (the boot sole) shines like a piece of varnished wood, it is evident the leather has absorbed all it can. For the upper leather in the rainy season I use raw linseed oil, occasionally, before going out in the mud and wet, brushing it over the uppers. The boot soles impregnated with the varnish will wear twice as long as those not so treated. RUDOLPH.

EXTRACTING NEEDLES OR BITS OF IRON.—A simple and usually successful mode of extracting a needle or any piece of steel or iron broken off in the flesh is accomplished by the application of a simple pocket magnet. An acquaintance of ours had a little daughter who recently broke a needle off in her hand. A surgeon was called, who made several efforts to find the needle by probing and incision, but without success. After the surgeon had left, the mother conceived the idea of trying a magnet; one was procured, and after one or two applications of it, the broken fragment of needle was discovered attached to the magnet. This idea will be of especial utility to workers in iron. Machine shop surgery is not the most delicate or least painful, though men heroically undergo it rather than the loss of time due to an inflamed eye or festering finger. Iron filings have a way of imbedding themselves in the eye, which defies almost every ordinary means of extraction. For their removal, a small blunt pointed bar of steel, well magnetized, will be found excellent, and we should recommend that workmen liable to such injuries keep such an instrument about them. It would be a good plan to insert such a bar in a penknife, in a manner similar to a blade.

SHEEP AND WOOL.

Eastern Wool Market.

NEW YORK, May 15.—The market continues in a dull and depressed condition, but prices are not altered, as the moderately light supply of all kinds tends to support them. New Texas clips are arriving slowly, but the prices asked by holders are considerably above the views of purchasers. Receipts of new spring California are becoming more liberal, and lots are placed without difficulty upon receipt. Sales for the week are 221 bales Australian at 51¢@52¢; 112,000 lbs. X new California at 18¢@22½¢; 132 bales new spring do. at 31¢@32¢; 48 do. choice at 35¢; 29,000 lbs. scoured do. at 65¢@70¢; 7,500 lbs. lambs', at 25¢@26¢; 1,500 lbs. Mexican at 22¢; 200,000 lbs. Western Texas at 24¢@28¢; 8,000 lbs. new clip do. at 32½¢@33¢; 5,500 lbs. Georgia at 40¢@41¢; 3,000 lbs. fine and medium X Ohio fleece at 55¢@56¢; 5,000 lbs. Iowa do. at 48¢; 10,000 lbs. fine unwashed Western at 37½¢@47¢; 70 bales super pulled at 46¢@50¢; and 95 do.; 15 do. X, 80 do. combing, and 60 do. black, on private terms.

BOERON, May 15.—The Wool market is very dull, with no prospect at present of any improvement. Sales of fleece Wool the past week have been quite limited; there is scarcely any inquiry for fine fleece or fine Australian. Although prices may now be considered quite low, holders are anxious to close up their stocks, but even if concessions were submitted to, transactions would not be materially increased. 53¢@54¢ may be considered extreme prices for good XX and XXX fleeces, while No. 1 would sell readily at 57¢@58¢, and if in very good condition might bring 60¢. Pulled Wool meets with a fair demand, particularly fine super suitable to take the place of No. 1 fleece. Holders are sold up close, and have not allowed the stock of pulled to accumulate, as prices are as high as they are likely to be for some time to come. The break in the Pacific railroad has interfered with the supplies of new spring California, but some considerable lots are now near at hand. Prices range from 30¢@35¢ per pound for good and choice lots, the latter being the highest price yet obtained. There has been considerable new spring sold to arrive, it is understood to the amount of between four and five hundred bales, but it is not included in the sales of the week. The transactions of the week include upwards of 300,000 lbs. at 26¢@35¢ for spring, and 18¢@25¢ for fall. There have been sales of Western and other fleeces at 42¢@50¢; combing and delaine fleeces at 57¢@66¢; unwashed combing and delaine at 45¢@50¢; scoured at 54¢@55¢; and super and X pulled at 42½¢@57½¢.—Call.

Sheep Raising.

Several of our sheep raising friends having expressed a desire to have the RURAL PRESS reproduce Col. E. S. Stowell's valuable essay on sheep raising, we willingly comply with the request, as it is not only of great practical worth to the sheep raiser, but will be found extremely interesting to the general reader. The essay was read before the Vermont State Board of Agriculture, February 3d and 4th, 1874. Col. Stowell is admitted to be as high authority on this subject as we have, and besides knowing whereof he writes, he knows how to write it. It will require several numbers of our "Sheep Department" to complete its re-production. Our first selection is confined to

The Sheep of Antiquity.

What sheep should we raise, is a question now agitating the minds of many men, and it is with a feeling of delicacy and doubt that I undertake the labor of answering it. It seems so much like an advertising of my own wares, that it is in a measure distasteful to me, and only through the persistent urging of my friends, and a certain sense of responsibility that has overcome my reluctance, do I consent to undertake it at all. To authorities to whom I have liberally quoted, as Youatt, Morrell, Fleischman, Randall, Hayes, etc., I tender my kindly remembrances and acknowledgments.

From the earliest period of the world's history, sheep have been domesticated and appropriated to the wants of man, and have ever stood in the foremost rank of essentials to his comfort and prosperity. He has been food and raiment, the type of man's salvation even, in the gift of the "Lamb of God that taketh away the sins of the world," unto Adam, also, and to his wife, did the Lord God make coats of skins and clothe them." "Abel was a keeper of sheep, and brought the firstlings of his flocks and the fat thereof as an offering unto the Lord." And if, as Morrell has it, there is no authority for supposing that the flesh of the sheep was used for food until after the flood, the Divine permission was given unto Noah. "Even as the green herb have I now given you all things," (for food); and even stronger unto Moses, "Then thou shalt kill of thy herd and of thy flock, which the Lord hath given thee, as I have commanded thee; and thou shalt eat in thy gates whatsoever thy soul lusteth after," and there is every reason to suppose that the milk of the ewe was eaten

very early, and it has since been in various parts of the world, and even now by the nomadic tribes of the East. "And he made him to suck honey out of the rock." Butter of kine and milk of sheep, with fat of lambs, and bulls of the breed of Bashan." Burckhardt gives the following account of the manufacture of butter from ewe's milk by the Syrian Arabs:

"The sheep and goats are milked during the three spring months, morning and evening. They are sent out to pasture before sunrise, while the lambs or kids remain in or near the camp. About ten o'clock the herd returns and the lambs are allowed to satiate themselves, after which the ewes belonging to each tent are tied to a long cord and milked, one after another. When the ewe is feeble in health her milk is left wholly for the lamb. The same process occurs at sunset. From a hundred ewes or goats (the milk of which is always mixed together), the Arabs expect in common years about 8 pounds of butter per day, or about seven cwt. in the three spring months."

But it is not really of the milk or meat producing qualities of sheep (I am willing to admit all that can be truthfully said about them), but sheep as a wool bearing animal that I purpose to speak. I have made these references to show that we have Divine authority for putting a high estimate upon them as sheep, for even He shall set the sheep on his right hand and the goats on his left. The art of weaving and dyeing was understood in early days. Job says, "My days are swifter than a weaver's shuttle," and Joseph had a "coat of many colors."

A writer on ancient manufactures says, "Modern historians have united in tracing the invention of weaving to the Egyptians," not of wool but of flax. The banks of the Nile were as unfitted by its overflow and its soft bottoms for the keeping of sheep then as now, and sheep no doubt as unfitted for that kind of pasture; but, whereas unfitted for sheep, it was eminently fitted for the production of flax, from whence then and now the fine linen of commerce is manufactured.

But are claims of the primitive shepherds fairly considered? The cultivation of sheep, as we have seen, was coeval with the expulsion from Paradise; and when Noah's descendants were scattered, there is no proof but they retained their old avocations although they changed their tongues; or when Abraham sojourned in Egypt with his family and his flocks and his herds, how easy for him to have imparted their skill, though he saved his wife, and his cattle, his gold and silver.

STOCK BREEDERS.

Live Stock at the Centennial.

It is understood that the Bureau of Agriculture of the International Centennial Exhibition has determined to exhibit live stock within the months of September and October, 1876; the period devoted to each class and family being fifteen days, and the division as follows:

Horses, mules and asses (as one class), from September first to fifteenth.

Horned cattle (of all varieties), from September twentieth to October fifth.

Sheep, swine and goats (as one class), from October tenth to twenty-fifth.

An important rule regulating admission requires that all animals exhibited be of pure blood (trotting stock and fat cattle excepted). Another rule not to be overlooked, excludes all animals, even though they be thoroughbred, which are not highly meritorious.

The exhibition being open to the whole world, it is of the first importance that we bring forward the best of their kind only, as the character of our stock will be judged by the general average of those exhibited. Exhibitors will be expected to provide for feeding their stock. An officer of the bureau, specially charged with the duty, will furnish at cost prices, all forage and other food, at depots conveniently located within the grounds. Exhibitors will also be expected to furnish their own attendant, on whom all responsibility of the care of feeding, watering and cleaning the animals, and also of cleaning the stalls will rest.

Though the Commission will erect ample accommodation for the exhibition and protection of live stock, contributors who may desire to make special arrangements for the display of their stock will be afforded facilities, at their own cost.

All animals will be under the supervision of a veterinary surgeon, employed by the bureau, and before whom each animal must pass, before admission—to guard against infection—and who will also make a daily inspection, and report.

In case of sickness, the animal will be removed to a suitable enclosure, specially prepared for its comfort and medical treatment.

Rings will be provided for the display and exercise of horses and cattle.

The bureau is in daily receipt of applications for space, and it is highly important that all who design exhibiting should now make application, as the extent of preparation necessary can only be regulated by an estimate based upon actual demands.

Inquiries may be addressed to the Chief of the Bureau of Agriculture, Philadelphia.

THE VINEYARD.

Summer Work in the Vineyard.

[Written for RURAL PRESS, by W. A. SANDERS.]

"How are the raisins of commerce dried?"

By the heat of the sun. "Are the Malaga layers, the red Valencia's, the Bloom layers, the Sultanias, and the Pernvian Huascos all dried by sun heat alone, without any additional heat whatever?" Yes, positively, yes. No other heat is used in curing the raisins of commerce. "Well, how is it done?" That is just what we shall tell you in this article. Those of your readers who read my article in the RURAL in 1872, describing raisin curing as I saw it in Southern Europe, will recognize this, in part, as a repetition of what I then wrote. I deem a detailed description necessary now, as the RURAL has increased its circulation many thousands since that time; and besides, many persons would read such an article with interest now, who would hardly look at it three years ago.

Malaga Raisins are Dried

On cement floors, made at convenient distances apart throughout the vineyards. These floors are made by digging up and finely pulverizing the soil to a depth of eighteen inches or two feet, and then mixing with this pulverized earth gypsum, lime, water-lime, or other absorbent of such elements as will cause the mass to harden in a stone-like cement. The whole mass is then thoroughly saturated with water, and kneaded into a stiff adobe-like mud, which must then be pounded or rolled down into a level solid floor. On the top of this an additional layer is spread, a few inches in thickness, in which pulverized charcoal or lamp-black has been mixed, to make it of an even black color, to cause it the more perfectly to absorb and retain the heat of the sun. The floor is then left for two or three months to dry and heat, so as to be in perfect condition for the curing of raisins at the beginning of the vintage. New floors are usually made at the beginning of the dry season, so that they have about three months of sun-heat to put them in perfect condition for use. After making the new ones, repairs of old floors are attended to, wherever found necessary. Floors properly made, however, will last for dozens of years, with very little repairing. This is as accurate a brief description as I can give of the drying floors and their construction as you will see them in Guadalema valley, and also the adjoining valley with an unspellable name that sounds like *God-a-la-horry*, in the interior part of Southern Spain.

In some localities near the Mediterranean, where the heat of the sun is less intense, the drying floors are built at an angle facing the south. In some places temporary structures with a surface of brick, stone or tiles (broad plates of brown earthenware) are used for drying raisins. And in other places hill-sides sloping to the south are used for the same purpose. But where the greatest quantity of the finest raisins are made, the curing is done on horizontal floors made as I have here described.

Curing the Raisins.

When the first bunches of grapes are thoroughly ripe, the "pickers" go through the vineyard and carefully examine every vine. They lift the foliage on the left arm and hand, the right being free to examine or pluck such bunches as are fully ripe. These are placed in a tray or basket and conveyed to their drying floors, where they are spread out so that the bunches shall not press upon each other. The cement of the floor has treasured up the heat of the sun throughout the summer, until it is so hot now that it rapidly dries the bottom of bunches thus laid upon it. The sun and atmosphere as rapidly dries the top of the bunches, so that they require no turning. No hand has to be laid upon them till they are gathered up, in from five to ten days, perfectly cured raisins.

Troublesome Insects.

Wasps, as is well known, are a most noisome pest in fruit-drying. There is one thing, however, that they will leave the most luscious of fruits for, that is fresh meat. So that cats, rats, dogs, old horses, or anything else, that will make "wasp bait," is in demand during raisin season. The meat is hung over the drying raisins, and is soon covered with wasps. They then put a small pan of coals of fire on a shovel-shaped board made for the purpose, and after throwing a handful of sulphur on the coals it is quickly thrust under the congregated wasps on the meat. This stupefies them and they fall in the fire. One hand thus employed will keep many hundreds tons of drying raisins free from wasps.

Other insects are far less troublesome than one would suppose. They seem to have a dislike for the cement floors and keep clear of them. The Spaniards have a proverb which they apply in all cases of persons succumbing to difficulties which they encounter. I would try to give it in Spanish if I were half as good a Spanish scholar as I once thought myself, but lacking confidence in that line, I'll try to give a translation of it. "They are bugs that have fled from cement where they thought to

find only soft earth." It is founded on the all most entire exemption from the presence and depredations of bugs, beetles, etc., of the cement floors where raisins are dried.

The main thing is, in gathering the grapes, to see that there are no insects on them, and also that the bunches are free from the nests or eggs of insects. This accomplished, very little more is required, except to keep clear from wasps as above given.

Drying on the Ground.

Zante currants, which are not currants at all, but small seedless grapes, as most of your readers doubtless know, are generally dried on the ground. This can be accomplished with them, as they are so much smaller that they do not require the additional heat required by the black, solid composition of the drying floors. But even for these the drying floors would be much better, as will be apparent from comparing the filthy, imperfectly cured Zantes with the clean, luscious, bloom-covered, first-class raisins of commerce made on the drying floors.

Curing on the Vines.

In some of the hottest, driest parts of the world, where there are no fall rains, they cure raisins by crushing the stems of the bunches and leave them hanging on the vines. This process requires as many weeks as days are required by the drying floors, and the raisins when cured are irregularly shriveled on all sides, and are in rough, scraggly bunches, so that they cannot be packed as layers, which is the form of raisins most in demand by the tastes established by European production. Those who have used the Huasco raisins, so largely imported from South America during the last two years, will at once recognize them as vine cured, and as easily distinguishable from the layers of Malaga which are cured on drying floors.

This way of drying on the vines is most effectual in changing the juice and everything that can be changed to sugar in the process of curing. Raisins so cured are richer in sugar and of finer flavor than those made by any other process. Here on King river, with our late, hot, dry falls, we doubtless shall be able, when our rains are usually late, to cure a great many raisins in that way, and shall thus be able to supply a demand which will always exist for raisins in bulk, and which can be supplied in this way at a less price than what first-class layers can be afforded.

We considered this much on the subject of curing raisins necessary to show the utility and importance of drying floors. But for more specific directions about scalding certain kinds before drying, dipping in ley, etc., we shall have to wait till we write up "Fall Work in the Vineyards," which will be some time in August.

Write for the "Rural".

And right here let me say a few words to my brother vineyardists throughout the States. Give us the facts from your experience through the RURAL. Raisin making in localities best adapted to the business is soon bound to be a leading industry in our State. And let us contribute to each other's advancement by mutually giving our best thoughts, and the most useful facts of our experience on this matter, through the columns of the RURAL, and make it, as it should be, our *vade mecum* in developing this important industry. My observation and experience may be widely different from what yours have been. All the more necessary then that you should make yours known. Like the two knights who fought about the shield we may be both right, but let us try to look on both sides before we quarrel. Occasionally my articles in the RURAL have called out criticisms which gave me no cause to envy the man his feelings of head or heart that prompted them. Then, again, they have called out valuable and courteous communications from those of long experience who differed widely from myself in their experience and observation. Such is the character of an excellent article from J. R. Totman, of Colusa, on castor bean culture, called out by something that I had written in a previous number of the RURAL, and though I have the proof to show the correctness of my statements wherein he differed from me, yet I can see how his experience has led him to the conclusion at which he has arrived, and I feel truly thankful for his valuable article, which was replete with information which I did not before possess.

POLISHING VENEERS.—Get a little chromate of potash and put it in a 4-oz. bottle; add water. After cleaning off veneers, logs, etc., saturate a sponge with the above, and go over your work evenly. According to the strength, in a few minutes you may make lightest mahogany any color you require. When dry, polish. Corked up, it will keep any length of time, always ready for use, and you can repeat it either before or after oiling, if not dark enough. But if you get your work too dark, you will have a job to paper it off evenly, especially in turned work. It won't stain where there is polish or glue.

DISINFECTANT AND MOUTH-WASH.—A weak solution of permanganate of potash will destroy instantly any taint from diseased teeth or imperfectly cleaned plates, and should always be used to rinse epithelions with in hot weather. It is cheap, satisfactory, almost tasteless, not poisonous, and quite free from smell. It may be satisfactory to some to know that this will remove the taint of smoking from the breath if used as a mouth-piece.

PATRONS OF HUSBANDRY.

THE HEADQUARTERS of the California State Grange are at No. 6 Leidesdorff street, in rear of the Grangers' Bank of California, No. 415 California street, San Francisco.

To the Stockholders of the California Farmers' Mutual Fire Insurance Association.

NOTICE.—There will be a meeting of the stockholders of this company on Tuesday, June 1st, 1875, at their office, No. 6 Leidesdorff street, San Francisco, for the purpose of increasing the capital stock to Three Hundred Thousand (\$300,000) Dollars. By order of Board of Directors.

W. H. BAXTER, Secretary.

Secretaries will be supplied with a printed list of subscribers for this paper upon sending a list of their offices within the range of their Grange. Also with blank reports, etc., for clubs.

Grange Directory.—A full list of officers of the State Grange, Deputies, names of Councils, Subordinate Granges, Masters and Secretaries will appear in this department on the first Saturday of each month.

"To Labor is to Pray."

[Recited by Mrs. MARY W. KIRK, Lecturer of Olney Grange, No. 7, Montgomery Co., Maryland, at a harvest feast, April 13, 1875.]

Pause not to dream of the future before us;
Pause not to weep the wild cares that come o'er us;
Hark how creation's deep musical chorus,
Unintermitting, goes up into heaven!
Never the ocean wave falters in flowing;
Never the little seed stops in its growing;
More and more richly the rose-heart keeps glowing,
Till from its nourishing stem it is given.

"Labor is worship!" the robin is singing;
"Labor is worship!" the wild bee is ringing;
Listen! that eloquent whisper, upspringing,
Speaks to thy soul from out nature's great heart.
From the dark cloud flows the life-giving shower;
From the rough sod blows the soft breathing flower;
From the small insect the rich coral hower;
Only man, in the plan, ever shrinks from his part.

Labor is life! 'tis the still water falleth;
Idleness ever despaireth, hewalleth;
Keep the watch wound or the dark rust assaileth;
Flowers droop and die in the stillness of noon.
Labor is glory!—the flying cloud lightens;
Only the waving wing changes and brightens;
Idle hearts only the dark future frightens;
Play the sweet keys wouldst thou keep them in tune.

Labor is rest—from the sorrows that greet us;
Rest from all petty vexations that meet us;
Rest from sin, promptings that ever entreat us;
Rest from world-airs that lure us to ill.
Work,—and pure slumbers shall wait on thy pillow;
Work,—and thou shalt ride o'er care's coming billow;
Lie down not weary 'neath weeping willow;
Work with a stout heart and resolute will.

Labor is health! Lo, the husbandman reaping!
How through his veins goes the life-current leaping;
How his strong arm in its stalwart pride sweeping,
True as an anvil, the swift sickle glides.
Labor is wealth; in the sea the pearl groweth;
Rich the queen's robe from the small cocoon floweth;
From the fine acorn the strong forest hower;
Temple and statue the marble block hides.

Droop not though shame, sin and anguish surround thee
Bravely fling off the cold chain that hath bound thee!
Look to yon pure heaven smiling beyond thee!
Rest not content in thy darkness,—a cloud.
Work for some good, be it ever so slowly!
Cherish some flower, be it ever so lowly!
Labor,—all labor is noble and holy;
Let thy good deeds be thy prayer to thy God.

—By Frances S. Osgood.

Grange Work in Maryland and Iowa.

EDITORS PRESS:—In a brief letter from New York City I gave your readers an outline of some pleasant visits to Granges, and of the general and gratifying prosperity of our Order in Maryland, Delaware, New Jersey and New York, as learned by actual observation and converse with some of our fellow Patrons in the East.

This letter is intended to communicate a more detailed account of my visit to Olney Grange, No. 7, of Montgomery county, Maryland, some twenty miles from Washington City; as well as of a few hours' stay at Des Moines, Iowa, the headquarters of the State Grange of Iowa, which, having first attained in its jurisdiction the number of 2,000 Granges, and having most successfully developed and applied our Grange principles, one feels almost tempted to call

The Alma Mater of the Grange,

its "nourishing mother."

While visiting a relative in Maryland, I learned that Olney Grange, whose place of meeting was only four miles distant, and whose Master is my friend, Brother Joseph T. Moore, Master of the Maryland State Grange, was to have a harvest feast the very evening I arrived. I was unwilling to let so rare an opportunity pass to meet our fellow Patrons in one of the most noted Subordinate Granges of the East, to witness their work and spirit, and to learn from their own lips what they think the Grange has done for farmers and farmers' families in Maryland.

So I secured a good saddle horse, "General" by name, who carried me with as much vim and speed to this peaceful gathering of the Grange, as he has been known to have borne gallant soldiers on the field of battle in that hideous war which it is now a noble part of the work of

Patrons and Patriots

To bury and forgive, with a fervent petition, uprising from every lip, that never again may our land be so afflicted.

On arriving at Olney I found a goodly array of fellow Patrons, about half of whom were sisters—and hence to a great degree comes the live, the earnest, and successful character of this and all similar Granges. They were assembled in a handsome two-story hall, recently built, most conveniently planned, neatly furnished, and well lighted.

They were in the midst of their harvest feast, and soon by their hearty welcome and hospitality I was enjoying the good things so abundantly furnished everywhere at our substantial Grange festivals, and then till nine and a half P. M., about which time it is their standing rule to adjourn on such occasions, it was my privilege to enjoy with them still more

"The Feast of Reason and the Flow of Soul."

By my request they continued their appointed exercises as though they had no visitor, and we enjoyed the reading of a thoroughly sensible essay on "Cultivation," and the recitation of a most beautiful and instructive poem on "Labor," which remained as the literary exercises of the meeting. It is a rule in this Grange to have an original essay by some member, read usually by the Lecturer, at least every fourth meeting, and such other improving literary exercises as time and the wants of the Grange may permit.

On this occasion a most estimable lady member, Mrs. Mary W. Kirk, occupied the Lecturer's chair most efficiently.

The essay she read was by one of the younger members of the Grange, Charles F. Kirk, their Worthy Steward. She then recited with deep earnestness and admirable expression a poem by Frances S. Osgood, entitled "To Labor is to Pray." Both essay and poem will be found in this number of the RURAL PRESS, as copies were kindly furnished by request, and I ask for them the careful reading and earnest consideration of all your readers.

The entire occasion was a most enjoyable one. It proved to me that while the members of Olney Grange, under the pleasant leadership of Brother Moore and his estimable wife, who is our Flora of the National Grange, and with both of whom I shared our memorable sessions at St. Louis and Charleston, are carrying out as successfully as any Subordinate Grange I know of, the purposes of our Order in general, and especially a valuable suggestion of the National Grange, and perhaps, indeed, the most important of all its suggestions at the last session. That suggestion was this, and is worthy to be heeded and practiced by our members everywhere, and in substance is as follows: That our brotherhood shall esteem the Moral, Social and Intellectual Features Paramount

In our work, while we should not neglect any other important matters.

Now, Olney Grange seems to me to have made this their standard of excellence, and yet to give proper attention to the business arm of our Order. For when business matters came up, it was announced that important savings have been made in buying their supplies, and especially about that time in the purchase of sugar. They, like all members in the older States, where our business associations have been most carefully matured, find that the true method of saving large per cents. on the purchase of all farm implements, as well as other supplies, is to

Mass all Orders.

This unlooked for opportunity to meet with Olney Grange, and the many pleasant associations connected with it, shall ever be cherished by me among the brightest of life's memories.

Iowa.

Taking Des Moines, Iowa, in my route home, afforded me the great satisfaction of meeting Brother N. W. Garretson, whom the pioneers of our Order in California know and appreciate so well; also Brother W. D. D. Wilson, a devoted veteran in our cause, and former Secretary of the Iowa State Grange; also Brother Jones, editor in chief of that valuable paper, the *Patrons' Helper*. I also visited the State Grange agency, under Brother Day, which has set so valuable an example in the good it has accomplished for the farmers of Iowa in purchases and sales.

It was gratifying to learn with certainty that the action of the Charleston session of the National Grange in regard to the internal management of our interests—action of which outsiders hear and know but little, if anything—so well met the wishes of our brotherhood in Iowa and other leading Northwestern States that a new impulse, as it were, has been given to our work there.

All the watchmen on our towers are ready to say of our Order, now,

All is Well—Fear Not—Only do Your Duty.

Our members in California, Oregon and Washington will rejoice to know that Brother Garretson is rapidly recovering from the severe attack of illness which made him deem it best to resign his laborious duties as Secretary of Iowa State Grange.

I regretted not finding our good brother and most earnest and successful Grange worker, Col. A. B. Smedley, Master of their State Grange, but had the good fortune to receive a copy of his admirable and useful work entitled "Manual of Jurisprudence and Co-Operation."

Which should be in the hands of every Master, if not every officer of a Grange. I am glad to learn, on my return to California that you have the work for sale at the office of the RURAL PRESS. Yours fraternally,

J. W. A. WRIGHT.

San Francisco, May 19th, 1875.

San Jose Grange Picnic.

San Jose Grange enjoyed the second anniversary of its birthday at Alum rock, on Thursday of last week. They were joined by a goodly number of the Santa Clara Grange, and friends of the Order from both places.

At an early hour the five mile avenue leading eastward from San Jose to the city reservations in Penitencia canon presented a lively line of carriages and spring wagons, loaded down with jolly good souls, young, old and middle aged, making a delightful pilgrimage to one of the most beautiful, sequestered spots in all California.

The dancing floor, canopied with white canvas and surrounded with live oaks, was crowded before our arrival with listeners to the able address of Mr. Chipman, the youthful orator of the day. Music by the band followed the oration, when the basket brigade broke ranks and in squads followed divers ways and by-ways to cosy nooks for lunching places.

We were suddenly captured and led across the creek into a little camp of generous hearts, that will not be forgotten in many a day. We would call names but the live chieftess of the clan, (who must have been experienced with newspaper "head-eaters") swore us by the rugged edge of the "Penitencia" not to "print 'em."

We venture to say, however, one cake was rolled out as big as a cartwheel—a real mouth waterer. And even with our heavy re-inforcement, the party could not begin to corral all the nice chickens, or gobble up the choice stock of eggs, meats, sweet pickles, home-made cheese, pies, cakes, jellies and various other good things spread out before the party. And yet it was "all spiced" through and through with fun and humor.

It is worth a longer journey than from San Francisco just to visit the beautiful site of this picnic. For half a mile or more along the creek are shaded plats of ground backed by precipitous sky-bordering hills. Graded roadways, bridges and trails abound in various directions. But the wonder of the place consists in the number and variety of its mineral springs. Geyser canon alone can compete with it. In places, every few yards reveals a spring possessed of a character peculiarly its own, flowing freely of water that no chemist can counterfeit. Sulphur springs, strong, mild, weak and from white and blue to black. Springs tinged with soda, strong and mild with iron, lime and various carbonates, etc. Often those of a radically different nature are within arm's reach of each other. A stream from a short tunnel is so black as to give one side of the creek below the appearance of flowing ink.

Alum rock is a huge, perpendicular mass, partially incrustated with a blackish alum-tasting salt. Grottoes or shelving rocks overhang the creek in places, incased in stalactite formation.

The water from some of the mineral springs is palatable, and is already being used to advantage by invalids. The hotel erected during a previous season does a prosperous business. Numerous picnics are held here annually. Placed in the hands of individuals, this resort would soon become famous throughout the land. Eighteen years ago we visited Alum rock. It was in vast solitude and seemed ever likely to remain so.

Returning along the winding slope facing toward San Jose, we beheld a grand panorama of the most beautiful garden spot of California. The reader must himself see and feel the emotions of such a view to realize it in its true sense.

Altogether, we think the second anniversary picnic of the San Jose Grange a fortunate occasion. No undue effort at parade was manifested to prevent the day being one of rest and pleasure to all. Personally, we met many estimable friends. We should like to have shaken hands with many more. Our thanks are due for courtesies to us and ours for which we are not unmindful.

In Memoriam.

WHEREAS, It has pleased Almighty God, in his mysterious providence, to remove from our midst by death our beloved Sister, Mrs. MARY E. WOODBURN, a worthy member and past Flora of Salida Grange, P. of H., and while we recognize the wisdom of One who doeth all things well, we can but mourn the loss of our departed Sister. Therefore, be it

Resolved, That it is with sorrow inexpressible by words that we have parted with our dear friend and Sister.

Resolved, That by her death society has lost a bright ornament, a useful member, and the Grange a true friend.

Resolved, That while we deplore the loss of one so dear, therefore, let us cherish her memory here below, that we may, like her, have our work done; that when we are called hence we may be found worthy of admittance into our Father's kingdom above, where sickness and parting shall be known no more.

Resolved, That we tender to the bereaved husband, relatives and friends, our heartfelt sympathy and condolence in their great affliction.

Resolved, That these resolutions be spread upon the minutes of this meeting, and a copy be sent to the Stanislaus News and the RURAL PRESS for publication.

Mrs. M. A. REYNOLDS,
Mrs. M. J. WILSON,
Mrs. L. SHOEMAKE, } Com.

Salida, Stanislaus county, May 11th, 1875.

THE ALAMEDA COUNTY PICNIC.—We think there will be a good time at San Lorenzo grove May 29th. All Grangers and farmers will be welcome. Don't let trifles keep our workaday sort of folks away from such occasions.

Essay on Cultivation.

(By CHAS. F. KIRK, Worthy Steward of Olney Grange, No. 7, Montgomery County, Md.)

Worthy Master, Sisters and Brothers:—The labor of preparing an essay or address would have been materially diminished had a subject been furnished by the Grange for discussion before it, the responsibility of choosing what will interest you, and afterward handling it in a way to do justice to the audience, being more than a person but little versed in such matters likes to assume. The Grange in all its different phases and bearings, both collectively and individually, as a moral force, as a mental and a social benefit, and a pecuniary gain, has been so thoroughly and exhaustively discussed as to leave absolutely nothing concerning it that is yet unsaid; still as it might seem appropriate to fix upon something immediately pertaining to the Order, I will venture to take as a text the teachings of the second degree, and to show that by

Thorough Cultivation

Only, can we expect to attain that standard of excellence at which all should aim.

The importance of thorough cultivation of the soil is being more and more dwelt upon by modern agriculturists, it having been proven by repeated experiments that unless the tillage of any soil (no matter whether naturally sterile or fertile) is thorough, the best results cannot be reached. If the soil be sterile, the first step toward its improvement is to render available all the elements which it contains, and then to assist with such artificial constituents as may be required for further developments. In the fertile soil only more care is necessary; for, endowed by nature with life and strength to produce anything, rank and noxious weeds as readily as life-sustaining corn, its fertility will be wasted; and in attempting everything, will accomplish nothing, unless by the labor of the diligent husbandman the good is preserved and fostered and the useless and evil repressed and exterminated. May we not deduce from the lesson thus taught an application to ourselves, and see that unless even greater care is expended in the cultivation of man's good qualities, neither can the ordinary man perform nobly the duties which devolve upon him, nor can the brilliant genius improve and elevate the world unless his powers are sustained and directed, with his energies, which must achieve something—taught to work for good and not for evil. The culture and improvement of man—one of the most intricate of problems—I do not propose to attempt from any very exalted stand point; for such I have neither time nor ability, but merely to make such remarks upon the physical, mental and moral man as occur to all in every day intercourse with that very interesting creation.

First the Physical.

As this is neither a treatise on hygiene, nor on the Darwinian theory of development, it is not necessary to speak of man as a genus, or to dilate on the laws of health, it being sufficient to say that sound health is the foundation of all improvement, and that reckless abuse of it incurs always the heaviest penalties.

The first thing that strikes one at any social gathering is the difference in the deportment and manners of the persons assembled. While some lounge and sit and stand and walk in all sorts of grotesque and unnatural attitudes, others seem to be entirely at their ease and do everything, if not absolutely with grace, at least without awkwardness. Now, although there is naturally a difference in people, there is no one who, if taken at a proper age, could not be taught a deportment both pleasing to the eyes of others, and easy to the individual himself; and here let a word be said in favor of dancing, for in spite of the many objections made to it, its frivolity, etc., there seems to have been nothing yet invented to take its place, if only considered as an education of the muscles, and a cultivation of good manners; and if indeed its tendency is to improve these, we might forgive its many sins for the sake of the good rendered. Next to seeing a person, comes hearing his or her voice, and who has not been fearfully shocked at hearing harsh, uneducated, and untrained tones issue from lips that seemed to promise so differently. The only real training that the voice ever receives is when singing is taught. Now, though this is a great accomplishment, and too much cannot be said in favor of teaching all who can learn, still as it is used so little, compared with the use of the voice in conversation, it is surprising that the greatest need is left uncared for. Training, it is true, will not give to all the rich musical enchanting voices enjoyed by some, still, education and good breeding are more readily discoverable in subdued inflections and tones than in any other way.

Reading and speaking, of course, are included in the cultivation of the voice, and much as we admire and envy those who possess these accomplishments we make but little effort to cultivate either. Many an article loses half its merit when bungled over in the reading, and the man who has it in his power to speak well, I only mean clearly and distinctly, and has been taught

To Think on His Feet,

Is in himself a power, and can influence others and make use of the sense that he has in a way easily to distance any untrained competitor.

As I am only touching upon the broad fields of cultivation in a brief and desultory manner, I next proceed to mental culture.

The first essential in the use of even a strong mind is the ability to handle it, to do with it what the owner pleases, to concentrate it on any given point, to take it from the contemplation of corn, wheat and cattle to the solving of a problem in algebra, and from thence to an appreciation of the beauties of Tennyson, to be able to think about one thing at one time to the exclusion of all others. It is claimed that teaching the classics and mathematics does more to give this mental discipline than any other method yet thought of, although it seems useless to study a language which nobody uses or to puzzle your brain with the properties of the circle and hyperbola when you will probably forget it all before you have been away from school a year; still the training this study gives, and the necessity for close thought upon it, give practice in thinking and enable you to use the mind in any way you may afterward wish.

The fact that nearly all of us waste and fritter away our minds on all kinds of disconnected nonsense, is, beyond question, a great evil. The immense quantities of periodicals, monthlies, weeklies, etc., with which the country is flooded, are thought to be prejudicial in this respect, as any one who keeps up with many of these has little time for anything else. Too much reading of any kind is injurious; as in reading we may forget to think; but that each should pursue some

Rational Course of Reading,

is evident to all. That light reading, novels, etc., should not be totally excluded is also true, as some of the great novels, such as *Les Misérables* and *Vanity Fair*, are the best and most powerful delineators of human character; but novels certainly should not be indulged in to the extent that they are, at the expense of more solid matter and poetry, which, though mentioned last, is first both in beauty and influence. One of the sisters of the Grange told me some time since that she made it a rule always to divide the time that she had for reading so as to allow to each branch of literature its proportionate share. If many more of us would follow some such rule, a great gain would be effected in our habits of thought.

Naturally following reading comes

Conversation,

The most useful, elegant and valuable of accomplishments, which is absolutely not taught at all. Young gentlemen and ladies are taught to sing, to draw, to dance, to ride, to play; but beyond being taught to pronounce words, and to know a little about grammar, they are left to their own devices for the rest; and in many cases the talking sounds as if, like Topsy, it had indeed "grown" without any cultivation at all. Have you not thought of what the sensations of many a one would be, if he could see an evening's conversation, as taken down by some invisible stenographer? I fear the only expiation would be a

Vow of Eternal Silence.

One who has read and thought a great deal, yet who cannot express his ideas so as to benefit others by them, reaps but a poor reward for his labors in letting the light illuminate only the under side of the bushel. Still, it is not necessary to be very learned in order to converse well. We cannot always be talking about profound and abstract subjects; the more common want is the ability to handle ordinary topics so as to make them entertaining. The maxim, that if you have nothing to say, to say nothing (meaning, I presume, nothing profound) would, if acted upon, lead to too much silence to make "silence golden." Not we should all be taught to talk; to talk well; and also in talking not to forget that one of the elements of conversation is to listen; and that if our object is to entertain we must draw out those we converse with, as well as talk ourselves, for human vanity is such that no one is much entertained unless he thinks that he has added to the interest of the evening by giving others the benefit of his opinions. I recollect an instance of one young man whom it was thought impossible to entertain until a young lady of eminent tact succeeded in getting him to do justice to himself on the

Subject of Dried Peaches.

Before leaving conversation, one word against the modern tendency to think that it is witty and piquant to use slang. It is a vulgar habit, and one likely to grow on the person indulging in it. I know that it has been greatly the fashion, and has even gone so far as to have a school of American poetry founded upon it; still, in a language as copious as ours, capable of expressing any thought, from Byron's "Address to the Sea" to "Mary had a Little Lamb," it does seem as if we ought to find words enough to express our ideas without depending to the use of cant. The memory also, though not rated as a talent, is of more practical value than any other quality of the mind; unless it is developed, and information classified and arranged, the brain is much in the condition of a neglected library, with the catalogue lost, and the books so confused, blurred and tattered, that for any good they are, either to the owner or inquirer, they might as well never have been collected. The cultivation of the memory, though undoubtedly difficult, is certainly possible, and ought not to be neglected. Lastly,

The Moral Nature,

Which, if not developed, leaves a deficiency that neither physical grace nor mental ability

can ever hope to supply. If a child is taught the strictest regard for truth, not to think lightly of the slightest deviation from scrupulous honesty and integrity, to first respect himself, and to merit that respect before he can claim it from others, a sense of justice,

"A love of right, a scorn of wrong,
Of coward and of slave,"

His instructors may rest assured that they have given him a stronger armor against the temptations of after life than any mere Sunday school training could effect. Not that I would undervalue religious instruction, or that the Sunday schools do not teach morality, but that a stronger and more lasting impression is made, one that will be present in the hour of need, when the appeal is made to the strong reasoning powers of the brain and the

Innate Sense of Right and Wrong

Than when too much stress is laid on any creed, which is, at the best, but a belief, and which may afterward be forsaken, while the solid basis of an early established moral sense will remain unshaken while life lasts.

Temescal Grange.

On Saturday, May 15th, Worthy Lecturer J. W. A. Wright, visited this Grange for the first time. He gave some interesting information of the recent session of the National Grange and the work of the Order. His remarks elicited close attention, and his words of counsel and advice were kindly received.

By vote, the Grange approved of the proposal of the County Council to hold a picnic at San Lorenzo grove, Saturday, May 29th, and we believe it is the intention of a large delegation to attend.

A new class will take the first steps of membership on Saturday, June 5th.

Election of Officers.

MUSSEL SLOUGH GRANGE, No. 243.—Wesley Underwood, M.; T. Standart, O.; I. P. Duncan, L.; S. R. Wilson, C.; John Battenfeld, S.; Wm. Battenfeld, A. S.; T. McNamee, T.; A. Barnhill, S.; E. Griffeo, G. K.; Mrs. M. Duncan, Ceres; Mrs. M. Standart, Pomona; Mrs. T. McNamee, Flora; Mrs. M. E. Underwood, L. A. S.

BROTHER WRIGHT'S RETURN.—We are pleased to announce the return of our worthy State Lecturer, Brother J. W. A. Wright. He comes back in excellent health, bringing an amount of flesh fully equal to that which he took away with him last winter; while his faith in the Order and his zeal in working for it are as strong as ever. He is ready for work.

AGRICULTURAL NOTES.

California.

ALAMEDA.

EFFECTS OF THE RAIN.—*Livermore Enterprise*, May 15: The rain on Friday night last did no injury worth speaking of to the hay in this vicinity, and was of vast benefit to the growing hay and barley. Almost a quarter of an inch fell, and ever since the "bloom is on the rye."

WOOL SHIPMENT.—From same: From Thursday of last to Monday of this week, 80,000 pounds of wool were shipped from here to San Francisco. The wool clip in this section has been remarkably good this year.

BUTTE.

SPECIMEN WHEAT.—*Record*, May 15: We have been shown by R. M. Turner, of Dayton township, two specimens of club wheat, one grown on summer fallow, and the other late sown on bottom land of Butte creek. The length of the straw is decidedly in favor of the upland summer fallow, though both are well headed and promise a good yield.

COLUSA.

FAVORABLE REPORTS.—*Sun*, May 15: From all parts of the county we get more favorable reports from the crops. Fields are coming out that three weeks ago were given up. This county will have almost as much grain to export this season as last.

RECLAMATION OF GRAND ISLAND.—The Commissioners appointed to assess land on Grand island for reclamation purposes, filed their report from the County Treasurer recently. This assessment calls for \$66,147.88, or about \$4 per acre, and will, it is claimed, make Grand island the best reclaimed district in the State. The amount will be expended this summer in enlarging the present levees—which have never been broken by the floods since they were constructed—and will secure the island against overflow. The wheat and barley now sown on the land promise a magnificent yield.

CONTRA COSTA.

THE APPROACHING HARVEST.—*Antioch Ledger*, May 15: A portion of the early grain is ripening, headers and reapers are being put in order by the farmers and very shortly the work of harvesting will commence. The large vineyards of Messrs. Welch, Howard, Gottenburg, Wroughton and others on Marsh creek have never presented a finer appearance or given greater promise of bearing a full crop than now.

PROSPECT OF AN AGGREGATE CROP.—*Gazette*, May 15: The grain that did not get beyond chance of salvation during the April drought has improved wonderfully throughout the State from the effect of the showers and the highly favorable weather that has prevailed for the

past six weeks, and there is now a prospect of a fair aggregate crop yield. The hay harvest is now being made in the State and is likely to fall much below the usual quantity. Barley will generally be ready for the reapers within the coming two weeks, and is already beyond the chance of serious damage from any unfavorable change of weather, and two weeks more will carry most of the wheat beyond liability of serious injury from such cause, though much of the late sown, now doing finely, will take a month yet to mature with such weather as we have had the month past.

LAKE.

NO FAILURE.—A correspondent of the *Sonoma Democrat* writes from Lakeport: Lake county, like nearly all of the State, is suffering from want of rain. There is going to be no failure of crops here, but they will be light. Scott's valley will probably harvest an average crop. Dr. Johnson says he cut fifty-eight bushels of wheat to the acre last year, and he expects to do as well this year.

LOS ANGELES.

THE ANAHEIM VINEYARDS.—*Express*, May 15: We have a few notes from the vineyards. At Anaheim the damage done by the April frost has turned out to be only partial. Some of the vineyards will bear a full crop, while others will bear a very light one. The facts seem to carry out the theory advanced by Don Mateo Keller and Col. J. J. Warner, that irrigation about the time of a frost will preserve the vines from damage. Mr. Dreyfuss' vineyard was flooded the night of the frost, and it now gives every appearance of bearing a full crop. So it is with a portion of Mr. Bittner's, which was irrigated during the frost week. Another portion which was not in poor fruit condition. But the entire Anaheim section has come out of the ordeal much better than was expected and than was reported at the time. Over half of a full crop can now be counted on, with improving prospects. At Cucamongo the vines were not so far advanced as in other places, and the frost did less damage. Not over one-quarter of a full crop will be lost there.

MERCED.

AN ACTIVE HARVEST.—*San Joaquin Valley Argus*, May 15: Farmers in this section of the San Joaquin valley are preparing upon a grand scale for harvesting their crops, early grain being nearly ready for the header. Haying is now in progress, the volunteer fields being generally cut for hay, larger quantities being put up than has ever been used in this section of the State, owing to the fact that in consequence of the excessive wet weather in the early part of the season the volunteer fields became unusually foul, making the crops more profitable for hay than grain. The summer fallow and early winter sowed fields are generally reported as sure of a fair yield throughout the county, east of the San Joaquin river, the grain being full and plump. Farmers inform us that the cool nights of the past three or four weeks have had a very salutary effect upon the growing grain, enabling many fields to mature that were thought to be almost worthless. A large force will be employed by the farmers from the first of June until about the first of September at good prices, as farmers will strive to put their grain in market early in order to realize as nearly as possible upon their products, and enable them to prepare the grounds for next year's harvest.

MONTEREY.

A DISCOURAGING REPORT.—The *Bulletin*, of this city, publishes the following: A private letter from Castroville, under date of May 15, has the following: I am confident the bottom land will not make a quarter of a crop; many farmers will hardly raise their seed, and already many fields that were intended for grain are being cut for hay. The "sand hills," between the Salinas and Monterey are but little better, many fields being literally buried by drifting sand. The high lands—that is, from Elkhorn slough, via Santa Rita and Natividad, to Alisal—are much better and will yield very near an average crop. A small portion of the Cooper bottom near town, that was overflowed in January, still looks very well, but if the hot weather that has prevailed the last few days continues, accompanied by such wind as we have to-day (it is blowing a gale), it will share the fate of all the rest.

NEVADA.

BENEFITED BY THE SOUTH WINDS.—*Grass Valley Union*, May 15: The Penn valley farmers are now pretty well satisfied with their prospects for good crops of hay and grain. The soft and moist south winds, which have been blowing for the last week, have very greatly helped the crops. Those south winds are the next, in advantage to crops, to a regular rain.

SAN BENITO.

PROLIFIC.—*Enterprise*, May 15: J. W. Green, living in the country near Hollister, brought into our office the other day a bunch of bearded wheat—some twenty stalks having grown from one grain—which was six feet high and well headed. Mr. Green says that his crop looks well, if not better than it did last year at this time.

SONOMA.

AN AVERAGE CROP.—*Petaluma Argus*, May 15: From personal observation and such information as we have been able to gain from farmers and others, it appears that grain crops in this section of the county will be about an average. Some fields of grain in this vicinity are as promising as have ever been seen here. In the northern part of the county the yield will probably be light. The hay crop is considerably below the average.

CHERRIES.—*Petaluma Argus*, May 15: Cherries are ripening earlier in this section than usual. J. W. Cassidy commenced making shipments to San Francisco this week. The crop is unusually large hereabouts.

SOLANO.

A BETTER PROSPECT.—A correspondent of the *Vallejo Chronicle* writes from Rio Vista, under date of May 12: Since my last the wheat prospect has been growing brighter every day. Our farmers are all very hopeful now, and are sure of a splendid crop if the north winds will hold off for a few days. Just now the wheat is in that particular stage of its growth that the hot, dry winds from the north would shrink and shrivel it up very much, and if continuous would entirely destroy the crop. But we do not have much apprehension of any such a calamity. Most of the ranchers have their hay all cut down, and some are beginning to stack and to press. The hay crop will be very good this year—fully up to the average, if not above it.

ANOTHER VIEW.—The *Chronicle* says editorially: From a gentleman who has been traveling through Montezuma, Rio Vista and Denver townships, we learn that the crops never looked in such splendid condition as they do now. Nearly all the land in that section was summer fallowed. The hay crop is turning out much better than was expected, and will average about three-quarters of a ton to the acre. In Suisun township it will do better than this; the yield being over a ton to the acre. Grain has headed out finely, and the harvest will commence the latter part of this month or the first of June.

STANISLAUS.

A HAIR CROP.—*Stanislaus News*, May 15: At the present writing the outlook for the growing crops continues to improve in this county. The grain yield will undoubtedly, in the aggregate, be much above what was expected a short time since. The continuation of the cool weather is favorable, and many are sanguine that a half crop will be harvested in the county the present year.

TEHAMA.

BELOW AN AVERAGE.—*Tehama People's Cause*, May 15: The crops on the east side of the river look much better than we had anticipated from the reports we had received from the country. An average crop will not be obtained, but a much larger one than it was at first supposed possible to obtain will be harvested if the present cool weather prevails for a few days longer.

TULARE.

CONDITION OF THE CROP.—*Visalia Delta*, May 13: There will not be as much grain in Tulare county as was anticipated last fall, but the extra amount of acreage under irrigation will give us a heavier crop than that of any preceding year. On the Lower King's river ditch, 5,000 acres of irrigated lands will produce 175,000 bushels; on the Last Chance, an equal amount will be produced. The People's, the Settlers' and the Lakeside ditches will produce 3,000 acres or 105,000 bushels. We think it fair to assume that the rest of the county will produce an equal amount, or 780,000 bushels of grain. This will go far toward supplying the trade south of us. The failure of a few farmers on unirrigated land will not materially affect the general prosperity.

VENTURA.

THE GRAPE CROP.—*Signal*, May 15: R. C. Pearson says he will have double the amount of grapes he ever had before. He did not prune until quite late. Those who pruned early lost all. It seems quite clear that late pruning is better than early.

YOLO.

A SEASON OF PLENTY IN HUNGRY HOLLOW.—*Democrat*, May 15: S. L. Monday brought to town yesterday from his ranch in Hungry Hollow, a sample of Sonora wheat that is fit for the reaper and will be cut within a week. This sample is from a field of forty acres, and the yield has been estimated as high as forty bushels to the acre. Mr. Monday says he would not sell it for less than thirty-five bushels to the acre. Many other fields in the same vicinity are equally forward and will yield nearly as well. Barley also stands well and will be generally cut next week. We are heartily glad to hear so good a report from that misnamed locality, where some seasons they have had almost an entire failure.

BETTER THAN HOPED FOR.—*Wheatland Free Press*, May 15: Despite the unusual prevalence of scorching northerly winds, the grain crop is going to be fully up to the average—much better than the most sanguine dared to hope two or three weeks ago. The crops on the Bear river bottoms are looking splendid, particularly potatoes that were planted late enough to escape the late frost. The hay crop is reported to be rather short, the majority of ranchers being able to cut no more than sufficient for their own use.

Oregon.

FAVORABLE REPORTS.—All reports (says the *Oregon Farmer*) we receive from the country, including all parts of the valley, are most favorable. Fall wheat never looked better, the spring sowing only needed suitable rains to insure a full crop. Fruit of all kinds is making a favorable showing. Cherries and plums are already set in the greatest profusion, and apples and plums are going out of bloom, with every promise of a most prolific yield. Every indication at the present moment favors the belief that our State is to enjoy a most bountiful year and a more than average share of prosperity.



Why the Sea Complains.

Early in boyhood the sighing and sobbing
Sound of the sea-wave was oft on my ears,
Drowning the voice of my crying, and robbing
Sleep from young eyes growing pale from their
tears.
Down by the shore when the morning was breaking
Often have I questioned and pitied the sea
And the great deep, from its sad sorrow waking,
One day grew calm, and made answer to me.

That was the time of his tender confession;
That was the hour when his secret was told;
Just as the sun and his royal procession
Marched up the east with their banners of gold.
Just as a rivulet, loving, elated,
Paused for a moment, for strength, ere she
sprang
Into the arms of old Ocean, who waited
To answer the questioning song that I sang.

Ocean, give ear to the musical waters
Sliding down hill-side and gliding through lea—
The bright little brooklet that saucily scatters
Sparkling, pure drops, as in prodigal glee
And in trustful profusion, she pours out for thee
Her life's blood! Now what wilt thou give her?
O sea!

"I will give her my all—my heart and my treasure—
And cherish her ever with tenderest care;
She may float on my bosom and lie at her leisure
In these briny arms; but the sun will not spare
One so lovely and fair: Some sweet summer day
He will dazzle and charm her and steal her away!

"All my life long I am mourning in sorrow;
Longing for love he has taken from me.
Only the hope of some swift coming morrow
Calms the sad soul of the sullen, salt sea—
When brooklet and dew-drop and soft summer rain
May bring to my bosom my darling again."
—Simon Tucker Clark.

When Elihu Came Home.

All her life long Sara Holmes had had a romance. It began and ended with these words: "When Elihu comes home." And though she was but nineteen years old at the time of which I write, it seemed to her on the evening of that burning July day, that she had been living one or two centuries in this world, and all the time dreaming golden dreams of Elihu, only to find them shivered into atoms at the last.

For Elihu had come. And the time and the manner of his coming were so unlooked for and so unexpected to her, as well as to every one else, that it was no wonder the girl sat there in the moonlight, saying to herself, "He is here. I never need watch or wait for him again. Poor Elihu!"

The earliest stories she could remember had been told to her, by her mother, about "Cousin Elihu" and the enormous fortune he had made "down South," at a time when fortunes could yet be made there. She had heard fabulous tales of the palace in which he lived, of the slaves who flew to do his bidding, of his beautiful carriages and horses and of the jewels and silks and velvets that fortunate woman would possess who would one day become Elihu's bride.

Other girls had heard these stories also, and the belle of Holmesdale often said that, when she was sixteen, she should find her way down South, and "set her cap" for Elihu Holmes. And now Elihu had come home.

As Sara Holmes grew up and developed into a queenly and self-possessed young woman, the thought would sometimes occur to her, as she stood before the mirror braiding her dark hair, "If he should come back, would he think me pretty?" The broad, low brow, the oval cheeks and dimpled chin answered; the healthful color, the deep, dark eyes, the sudden, bright, bewildering smile, said "yes." For the treasures of her mind and heart might well have won an older and wiser man to love her, long before Elihu came home.

And now she drew a long breath and set herself to recall all the incidents of that sudden and startling return.

Tea was over—the milk was strained—and they were all sitting on the front piazza, under the shade of the maples and the locusts, while her father read bits from the weekly village paper aloud. Her step-mother was knitting; her sister Grace was lining a hat and her brother Ben was whittling out a toy boat, while Sara sat beside him in a reverie about her hero in the South.

A carriage drove up the village road and halted at their gate. The driver descended from his seat and beckoned to her father, who hurried down to meet him. After talking for some time together, a small trunk was lifted down and left beside the gate. Then the carriage door was opened and a tall figure descended, and, directly after, Ben, who had followed his father, in a fit of boyish curiosity, galloped back with distended eyes, whispering loudly:

"Mother—girls! Cousin Elihu has come! And he has just every cent of his property down South! I heard the driver tell father so! And they have sent him off up here, alone, because they thought he was going to be sick; and there he is, you see, leaning on father and the driver, and he can't but just walk. Isn't it a blamed shame of these Southerners?"

"Mercy!" exclaimed Ben's step-mother, rising, as they all rose, when the tall, slender figure approached.

Sara looked up with her heart in her eyes, to greet her hero—no less a hero to her for the pitiful history of loss and ruin that she had just heard.

He was a tall, upright, elegant looking man, with a fair complexion, large, melancholy blue eyes, a long straight nose, drooping eyebrows, fine lips and a firmly rounded chin, that somewhat counteracted the listless sadness on the rest of his face. His hair was turning gray, and the heavy golden-brown moustache had one or two threads of silver, but with that exception he wore no look of age.

Elihu was well but plainly dressed in a traveling suit of gray. He removed his hat as he drew near the ladies, with a courteous grace; but he looked in vain for the warm welcome from the second Mrs. Holmes and her daughter Grace that he would have received from his own cousin had she been alive.

Mrs. Holmes bowed to him coldly though civilly; and Grace, angry with him and with herself for the sudden collapsing of sundry ambitious hopes which she had never confided to any one except her mother, swept him her latest dancing-school courtesy and affected not to see the hand he held out.

Elihu colored slightly and turned to Sara, whose large, dark eyes were fixed, with a look of tender pity, upon his refined and melancholy face.

"You have a face that I ought to know," he said to her gently. "You are my cousin's child, dear Sara! I hoped she would be here to meet me when I came home at last."

Sara's heart was already full, and this reference to her dead mother caused her tears to overflow.

"Dear Cousin Elihu," said she, taking his hand in both hers, "my mother remembered and loved you to the last day of her life. She would have been glad indeed, to see you here once more. I am glad, too. All my life long I have looked forward to your coming."

"But you did not expect to see me return so poor," said Elihu, sighing.

"Poor or rich, it matters little," replied Sara fervently. "You are here at home once more, and that is enough to make us all rejoice."

"Aye," said Elihu, looking from her beaming countenance to the cold face of the rest. "I should have been glad to bring gold enough to make me welcome. But what has happened has happened, and I do not wish to complain. Cousin Joshua, for my cousin's sake, and for the sake of the old times when you and I were boys together, I suppose you will let me stay at the old homestead for a few days?"

"Oh, to be sure! Stay and welcome," exclaimed the farmer, who feeling the eyes of his wife and his daughter Sara fixed upon him, was like a man between two fires.

So it was settled, and Sara flew about like a good fairy to prepare supper for the wanderer, and afterward to set in order his room and bed. At nine o'clock he retired, and then the storm burst forth.

The second Mrs. Holmes inquired shrilly, if their house was to be turned into a "poor farm" and made the abiding place of every shiftless creature who had wasted his substance in riotous living among "those negroes"—only to come, at the last without a penny in his pocket, to be supported by those who had the misfortune to be related to him in a distant way.

Mr. Holmes said meekly, that "it wasn't likely Elihu would want to stay long, and that as he had once redeemed the farm, which was heavily mortgaged, with his own money, and given a deed of the place to his first wife, he didn't very well see how he could refuse him shelter there if he claimed it—for a time, at least," he added, nervously, seeing his wife's black eyebrows knitting together in a way that he had learned to dread.

The days went on. By every art that a mean and paltry spirit could invent, Mrs. Holmes the second showed plainly to Elihu how unwelcome he was beneath her roof-tree. As for Grace, she simply ignored him. And Mr. Holmes, though he would gladly have been both grateful and kind, was so tamed by nightly curtain lectures that he dared not show the ruined man any attention, and only looked at him wistfully now and then, as if wondering when he would be gone.

Elihu's plate, knife and fork were placed upon the table at every meal, it is true. He fared as the rest fared, and his room and bed were the best in the house.

But this was Sara's doing. To her and to Ben he owed each moment of happiness which he enjoyed in the old house; but the other inmates of the house looked over and around him. Sara's proud spirit blazed up for his sake at a thousand petty insults and affronts each day. She wondered privately herself, how Cousin Elihu could endure it! Nor was she surprised when, one pleasant evening just four weeks after his arrival, Elihu told her he must go.

"I cannot blame you. They have treated you so shamefully," she said, while her heart sank down in her breast, like a stone sinking into the depths of the tiny lake on whose banks they sat. "But where will you go, Cousin Elihu? What will you do? You were ill when you came here, and thanks to their unkindness, you are not yet well and strong enough to care for yourself. If you had come rich as they expected, every one of them would have been at your feet!"

"Never mind them, Sara," said he; "you

and Ben have been so good to me that I have scarcely noticed the rest. So good that"—He paused and looked at her.

"Sara, when I am gone, shall you miss me?"

The tears rose to her eyes.

"O, how can you ask? You know, Elihu, that when you go, I shall think of you among strangers, poor, perhaps ill, perhaps dying!" She hid her face in her hands and sobbed aloud.

Elihu waited until her grief had exhausted itself, and then took her hand.

"What you say is all very true, Sara. I am not fit to go into the world alone. Will you go with me? You have a good home here, I know, but if I have you to work for, I will soon give you a better one. And by and by Ben can come to us, and we will make a man of him. Will you be my wife, Sara?"

She looked at him with all the solemn fervor of a woman's love and devotion shining in her eyes.

"If you will take me, Elihu, and let me care for you, I shall be the happiest creature on earth. I don't care where our home is or what it is, so that we share it together. I can be happier with you in a log hut than I could be with any one else in a palace; for you need me, Elihu, and I—I have thought and dreamed of you, and I really believe loved you from the day when my mother first told me about you, when I was sitting at her knee."

So they were betrothed, and, after a storm at the farm-house when her decision was first made known, Sara followed the fortunes of her lover to a distant city, where they were married.

Ben went with her as her protector, and "best man." Her father kissed her, and cried over her, as he bade her farewell, and put a pocket-book containing five hundred dollars into her hand for the wedding portion.

"I can't go with you to give you away. I shall never hear the last of it if I do; and I'm getting old now, and I want peace and quiet in my own home. But God bless you, Sara; and your husband that is to be. Poor Elihu!"

So, strengthened by her father's approval and blessing, Sara approached the altar to consecrate her life to the hero of her dreams.

The ceremony over, they drove to a first-class hotel, and breakfasted in a style that made Sara tremble for the future. And after breakfast Elihu laid a package before her, and a casket by the side of her plate.

"My first present to my wife," said he. "As for you, Ben!"

A cry of delight from Ben made his sister turn round to look at him. The boy was glorious in a gold hunting-watch and chain.

"Open your casket, love," said her husband, smiling.

She obeyed, and a river of light seemed suddenly to flash upon her from the diamonds within. At the same moment her husband broke the seal of the package, and showed her a bank book inscribed with her name.

"Ten thousand dollars are deposited there, subject to your order," said Elihu, carelessly.

"Ten thousand dollars and the watch! and the diamonds!" gasped Sara, turning pale.

"What can it all mean?"

"I know," broke in Ben, with a joyous laugh. "Cousin Elihu has only been pretending to be poor all this time. Nicely sold all those people at the farm will be."

Sara turned to her husband. He smiled, and drew her closely to his breast. From that happy day not a wish of hers or Ben's has been ungratified. And all the romance of her life began instead of ending (as she for a time supposed) "when Elihu came home."

The Family Hammer.

There is one thing no family pretends to do without. That is a hammer. And yet there is nothing that goes to make up the equipment of a domestic establishment that causes one-half as much agony and profanity as a hammer. It is always an old hammer, with a handle that is inclined to sliver and always bound to slip. The face is as round as a full moon and as smooth as glass. When it strikes a nail full and square, which it has been known to do, the act will be found to result from a combination of pure accidents.

The family hammer is one of those rare articles we never profit by. When it glides off a nail head, and smashes down a couple of fingers, we unhesitatingly deposit it in the yard, and observe that we will never use it again. But the blood has hardly dried on the rag before we are out-doors in search of that hammer, and ready to make another trial. The result rarely varies, but we never profit by it. The awful weapon goes on knocking off our nails, and mashing whole joints, and slipping off the handle to the confusion of mantle ornaments, and cutting up an assortment of astounding and unfortunate antics, without let or hindrance. And yet we put up with it, and put the handle on again, and lay it away where it won't get lost, and do up our mutilated and smarting fingers, and yet if the outrageous thing should happen to get lost, we kick up a regular hullaballoo until it is found again. Talk about the tyrannizing influence of a bad habit! It is not to be compared to the family hammer.

CROCQUET is a game that is played with mallets, balls, hoops, and pretty feet and ankles. The pretty feet and ankles score the most points.

The Spare Bed.

Who first called them "spare beds?" Why didn't he name them "man killers" instead? I never see a spare bed without wanting to tack the following card on the head-board:

NOTICE.—This bed warranted to produce neuralgia, Rheumatism, stiff joints, back-ache, docters' bills and death.

When I go out into the country to visit my relatives, the spare bed rises up before my imagination days before I start, and I shiver as I remember how cold and grave-like the sheets are. I put off the visit as long as possible, solely on account of that spare bed. I don't like to tell them I had rather sleep on a picket fence than to enter that spare room and creep into that spare bed, and so they know nothing of my sufferings.

The spare bed is always as near a mile and a half from the rest of the beds as it can be located. It's either up stairs at the head of the hall, or off the parlor. The parlor curtains haven't been raised for weeks; everything is as prim as an old maid's bonnet, and the bed is as square and true as if it had been made up to a carpenter's rule. No matter whether it be summer or winter, the bed is like ice, and it sinks down in a way to make one shiver. The sheets are slippery clean, the pillow slips rustle like shrouds, and one dare not stretch his leg down for fear of kicking against a tombstone.

Ugh! shake me down on the kitchen floor—let me sleep on the hay-mow—on a lounge—stand up in a corner—anywhere but in the spare bed! One sinks down until he is lost in the hollow, and foot by foot the prim bed-posts vanish from sight. He is worn out and sleepy, but he knows that the rest of the family are so far away that no one could hear him if he should shout for an hour, and this makes him nervous. He wonders if any one ever died in that room, and straightway he sees faces, hears strange noises, and presently feels a chill galloping up and down his back.

Did any one ever pass a comfortable night in a spare bed? No matter how many quilts and spreads covered him he could not get warm, and if he accidentally fell asleep it was to awake with a start under the impression that a dead man was pulling his nose. It will be weeks and weeks before he recovers from the impression, and yet he must suffer in silence, because the spare bed was assigned him as a token of esteem and affection.—Trade Palace.

The Fire that Old Nick Built.

We find in an exchange the following capital imitation of the "house that Jack built," and wish that it might become a household favorite: Intemperance—This is the fire that old Nick built.

Moderate drinking—This is the fuel that feeds the fire that old Nick built.

Rum selling—This is the ax that cuts the wood that feeds the fire that old Nick built.

Love of money—This is the stone that grinds the ax that cuts the wood that feeds the fire that old Nick built.

Public opinion—This is the sledge with its face of steel that batters the stone that grinds the ax that cuts the wood that feeds the fire that old Nick built.

A temperance meeting—This is one of the blows that we quietly deal to fashion the sledge with its edge of steel that batters the stone that grinds the ax that cuts the wood that feeds the fire that old Nick built.

Temperance pledge—This is the smith that works with a will to give force to the blow that we quietly deal to fashion the sledge with its face of steel that batters the stone that grinds the ax that cuts the wood that feeds the fire that old Nick built.

Eternal truth—This is the spirit so gentle and still that nerves the smith to work with a will to give the force to the blows that we quietly deal to fashion the sledge with its face of steel that batters the stone that grinds the ax that cuts the wood that feeds the fire that old Nick built.

CARPETS.—When we were young the use of carpets was by no means as common as it is nowadays; but we must confess that we had no idea that even at that time their limited use was an innovation. It appears that in the middle ages carpets were not used to cover whole floors, but only spread before the bed or throne of a king, or before the high or chief altars in churches; while the manufacture of carpets in England was not commenced until a little more than a century ago. Very far from finding carpet on the whole of the floors of churches as we see at present, most churches had no floors at all, and were simply covered with rushes, which the people gathered once a year to strew loose on the floors (only cathedrals in large cities had floors). The English at that time labored under a total lack of inventive genius, as they did not weave the rushes, the weaving of which into soft thick mats was later learned from the Japanese, while the first carpets came from India, and were very expensive, hence their limited use.

In France a man has been condemned for a libel which he wrote with a sharp stick on the skin of a green pumpkin growing in the fields.

A BELLE upon being asked her father's profession, said he "embalmed pork," she believed. He was a bacon curer.

In the Bottom Drawer.

I saw my wife pull out the bottom drawer of the old family bureau this evening, and go softly out. She wandered up and down until I knew she had shut it up and gone to her sewing. We have some things laid away in that drawer which the gold of kings could not buy, and yet they are relics which grieve us until both our hearts are sore. I haven't dared look at them for a year, but I remember each article. There are two worn shoes, a little chip hat with part of the brim gone, some stockings, pants, a coat, two or three spools, bits of broken crockery, a whip and several toys. Wife—poor thing!—prays over it, and lets her tears fall upon the precious articles; but I dare not go. Sometimes we speak of little Jack, but not often. It has been a long time, but somehow we can't get over grieving. He was such a burst of sunshine into our lives that his going away has been like covering our every day existence with a pall. Sometimes when we sit alone of an evening—I writing and wife sewing—a child on the street will call out as our boy used to; and we will both start up with beating hearts and a wild hope, only to find the darkness more of a burden than ever.

All is still and quiet now. I look up at the window where his blue eyes used to sparkle at my coming; but he is not there. I listen for his pattering feet, his merry shout, and his ringing laugh; but there is no sound. There is no one to climb over my knees, no one to search my pockets and tease me for presents, and I never find the chairs turned over, the broom down, nor ropes tied to the door-knobs.

I want some one to tease me for my knife; to ride on my shoulder; to lose my axe; to follow me to the gate when I go out, and to be there when I come in; to call "good night" from the little bed now empty. And wife, she misses him still more. Here are no little feet to wash; no prayers to say; and no voice teasing for lumps of sugar, or sobbing with the pain of a hurt toe. She would give her own life almost to awake at midnight and look across to the crib, and see our boy there as he used to be.

So, we preserve our relics; and, when we are dead, we hope that strangers will handle them tenderly, even if they shed no tears over them. —Exchange.

Touchy Husbands.

Women have their faults, it is true, and very provoking ones they sometimes are; but if we would all learn—men and women—that with certain virtues which we all admire are always coupled certain disagreeables, we might make up our minds more easily to accept the bitter with the sweet. For instance, every husband, we believe, delights in a cleanly, well-ordered house, free from dust, spots, and unseemly stains. The painstaking machinery necessary to keep it so he never wishes to see; or, seeing, too often neglects to praise. If, then, his wife, true to her feminine instincts towards cleanliness, gently reminds him, when he comes home, that he has forgotten to use the door-mat before entering the sitting room on a stormy day, let him reflect before giving her a lordly, impatient, ungracious "Pshaw!" how the reverse of the picture would suit him—viz., a slatternly, "easy" woman, whose apartments are a constant mortification to him in the presence of visitors. It is a poor return, when a wife has made everything fresh and bright, to be unwilling to take a little pains to keep it so, or to be properly reminded if forgetful on these points, upon which many husbands are unreasonably touchy, even while secretly admiring the pleasant results of the vigilance of the good house mother.

Mrs. JANE SWISSELM got disgusted at the Brooklyn kissing, and wrote an article for the papers warning all ladies against the dangers of osculation. "Kate," in the New York Graphic replies after this savage fashion: "Mrs. Swisshelm's letter is enough for me. I can understand just what a dreadful old person she must be. She wears trowsers, I am told, besides that preposterous garment, the 'chemise.' If I was a man I would no more kiss such a woman than I would kiss a pair of tongs that had been left out over night in a snow bank. Kissing, when done innocently, is as innocent as strawberries and cream, and as nice. If Mrs. Swisshelm could only grow young and pretty, and take off her trowsers and dress like a Christian, she would soon change her mind about kissing. Her letter is the expression of a cross old woman's envious mind, and she ought to be ashamed of herself.

CAN THIS BE TRUE?—An honest man never abandons a woman, but he knows how to make himself forsaken. And this? A woman is never deceived by the love which she inspires, but she deceives herself through that which she experiences. These are new French aphorisms, and they will bear meditation. The French people surpass all others in the art of telling a vigorous truth briefly.

A KISS.—Germans girls say "a kiss without a moustache is like bread without butter." A young lady, hearing the proverb, remarked that she could not prove it, as all her male friends wore moustaches.

A BOY is a blessing until he puts on pants. From the period of the first rent in his trousers dates a feeling in the maternal breast that is not wholly affectionate.



CATCHING THE WRONG "JACK."

Young Folks' Column.

Persevere.

The fisher who draws his net too soon,
Will not have many fish to sell:
The child who shuts his book too soon
Won't learn his lessons well.

For if you'd have your learning stay,
Be patient, do not read too fast:
The man who travels a mile each day
Will get around the world at last.

Mr. Choate and the Ambitious Boy.

A great many boys mistake their calling, but all such are not fortunate enough to find it out in as good season as this one did.

It is said that Rufus Choate, the great lawyer, was once in New Hampshire making a plea, when a boy, the son of a farmer, resolved to leave the plough and become a lawyer like Rufus Choate. He accordingly went to Boston, called on Mr. Choate, and said to him, "I heard your plea up in our town, and I have a desire to become a lawyer like you. Will you teach me how?"

"As well as I can," said the great lawyer. "Come in and sit down."

Taking down a copy of Blackstone, he said, "Read this until I come back, and I will see how you get on."

The poor boy began. An hour passed. His back ached, his head and legs ached. He knew not how to study. Every moment became torture. He wanted air. Another hour passed, and Mr. Choate came and asked, "How do you get on?"

"Get on! Why, do you have to read such stuff as this?"

"Yes,"

"How much of it?"

"All there is on these shelves, and more," looking about the great library.

"How long will it take?"

"Well, it has taken me more than twenty-five years."

"How much do you get?"

"My board and clothes."

"Is that all?"

"Well, that is about all that I have gained as yet."

"Then," said the boy, "I will go back to ploughing. The work is not near as hard, and it pays better."

A Monkey Mass Meeting.

We mounted the horses and were soon at the spot indicated by the sowars. There were not so many as had been represented, but I am speaking very far within bounds when I state that there could not have been fewer than eight thousand, and some of them of an enormous size. I could scarcely have believed that there were so many monkeys in the world if I had not visited Benares, and heard of the tribes at Gibraltar. Their sticks, which were thrown together in a heap, formed a very large stack of wood.

"What is this?" my friend said to one of the Brahmins, for since his appointment he had never heard of this gathering of apes.

"It is a festival of theirs, Sahib," was the reply. "Just as Hindoos at stated times go to Hurdwar, Hagipore and other places, so do these monkeys come to this holy place."

"And how long do they stay?"

"Two or three days; then go away to their homes in different parts of the country; then attend to their business for four or five years; then come again and do festival, and so on, sir, to the end of all time. You see that very tall monkey there, with two smaller ones on either of him?"

"Yes."

"Well, sir, that is a very old monkey. His age is more than twenty years, I think. I first saw him fifteen years ago. He was then full grown. His native place is Meerut. He lives with the Brahmins at the Soorja Khan, near Meerut. The smaller ones are his sons, sir."

Good Health.

Necessity of Sleep.

There are thousands of busy people who die every year for want of sleep. Sleeplessness becomes a disease, and is the precursor of insanity. We speak of sleep as the image of death, and our waking hours as the image of life. Sleep is not like death; for it is the period in which the waste of the system ceases, or is reduced to its minimum. Sleep repairs the waste which waking hours have made. It rebuilds the system. The night is the repair-shop of the body. Every part of the system is silently overhauled, and all the organs, tissues, and substances are replenished. Waking consumes and exhausts; sleep replaces and repairs. A man who would be a good worker must be a good sleeper. A man has as much force in him as he has provided for in sleep. The quality of mental activity depends upon the quality of sleep. Men need, on an average, eight hours of sleep a day. A lymphatic temperament may require nine; a nervous temperament six or seven. A lymphatic man is sluggish, moves and sleeps slowly. But a nervous man acts quickly in everything. He does more in an hour than a sluggish man in two hours; and so in his sleep. Every man must sleep according to his temperament; but eight hours is the average. Whoever by work, pleasure, sorrow, or by any other cause, is regularly diminishing his sleep, is destroying his life. A man may hold out for a time, but the crash will come, and he will die. There is a great deal of intemperance besides that of tobacco, opium or brandy. Men are dissipated who overtax their systems all day, and undersleep every night. A man who dies of delirium tremens is no more a drunkard and a suicide, than the minister, the lawyer, the merchant, the editor, or the printer, that works excessively all day and sleeps but little all night. —Henry Ward Beecher.

COUGHING AND COLDS.—The best method of easing a cough is to resist it with all the force of will possible, until the accumulation of phlegm becomes greater; then there is something to cough against, and it comes up very much easier and with half the coughing. A great deal of hacking and hemming and coughing in invalids is purely nervous, or the result of mere habit, as is shown by the frequency with which it occurs while the patient is thinking about it, and its comparative rarity when he is so much engaged that there is no time to think, or when the attention is impelled in another direction. Lemon juice, used as a gargle, is said by a French physician to be a specific against diphtheria and similar throat troubles, which he has successfully used for eighteen years. Another simple remedy, said to be quite as efficacious, is given as follows: Take onions, slice thin, and sprinkle loaf sugar thickly upon them; put in the oven and simmer until the juice is thoroughly mixed with the sugar. Give a teaspoonful four or five times a day.

TELEGRAPH MALADY.—Telegraph clerks will hear with alarm of telegraphic paralysis, a new malady reported by a French physician to the Academie des Sciences. An employee, who had been engaged in a telegraph office for nine years, found that he could not form clearly the letters U, represented by two dots and a stroke, I, by two dots, and S, by three dots. On trying to trace the letters his hand became stiff and cramped. He then endeavored to use his thumb alone, and this succeeded for two years, when his thumb was similarly attacked, and he subsequently tried the first and second fingers, but in two months these were also paralyzed. Finally, he had recourse to the wrist, which also shortly became disabled. If he forced himself to use his hand, both hand and arm shook violently, and cerebral excitement ensued. It appears that this disorder is very common among telegraph clerks.

DOMESTIC ECONOMY.

The Art of Cooking—No. 1.

The science and art of cooking may be divided into a few principal parts; the rest is all fancy. These parts are baking, boiling, broiling, frying, roasting, seasoning, simmering and stewing. Tasting is an adjunct to all.

BAKING.—In baking, see that the furnace or oven be properly heated; some dishes require more heat than others. Look at the object in process of baking from time to time, and especially at the beginning; turn it round, if necessary, in case it be heated more on one side than the other, to prevent burning. In baking meat and fish, besides keeping the bottom of the pan covered with broth or water, place a piece of buttered paper over the object in the pan. It not only prevents it from burning, but acts as a self-basting operation, and keeps the top moist and juicy. If the top of a cake bakes faster than the rest, place a piece of paper on it.

BOILING.—This is the most abused branch in cooking. We know that many good meaning housewives, and even professional cooks, boil things that ought to be prepared otherwise, with a view to economy; but a great many do it through laziness. Boiling requires as much care as any other branch, but they do not think so, and therefore indulge in it. Another abuse is to boil fast instead of slowly. Set a small ocean of water on a brisk fire and boil something in it as fast as you can; you make much steam but do not cook faster, the degree of heat being the same as if you were boiling slowly. If the object you boil, and especially boil fast, contains any flavor, you evaporate it, and cannot bring it back. Many things are spoiled or partly destroyed by boiling, such as meat, coffee, etc. Water that has been boiled is inferior for cooking purposes, its gases and alkali being evaporated.

BROILING.—Whatever you broil, grease the bars of the gridiron first. Broiling and roasting are the same thing; the object in process of cooking by either must be exposed to the heat on one side and the other side to the air. Bear in mind that no one can broil or roast in an oven, whatever be its construction, its process of heating, or its kind of heat. An object cooked in an oven is baked. It is better to broil before than over the fire. In broiling before the fire all the juice can be saved. In broiling by gas there is a great advantage. The meat is placed under the heat, and as the heat draws the juice of the meat, the consequence is that the juice being attracted upward it is retained in the meat. A gas broiler is a square flat drum, perforated on one side and placed over a frame. Broiling on live coals or on cinders without a gridiron is certainly not better than with one, as believed by many; on the contrary, besides not being very clean, it burns or chars part of the meat. That belief comes from the fact that when they partook of meat prepared that way, it was with a sauce that generally accompanies hunters, fishermen, etc., hunger, the most savory of all savory sauces. —The Housekeeper.

CLEANING SILK DRESSES.—Silk dresses may be cleaned by potato water in this way: Grate potatoes into clear, cold water—a large potato to every quart of water, of which five or six will do for a couple of dresses. If for very light silk, pare the potatoes, but in any case wash them clean. The pan of water must not be stirred in the least for forty-eight hours; then very slowly and steadily pour off the clear liquor, but not a particle of the sediment, into an open vessel, dip the pieces of silk into this liquid up and down a few times, without the least creasing them; then wipe them on a flat table with a clean towel, first one side then the other. It is good to hang each one as it is dipped upon a line, to allow the drops to drain off a little before wiping. Iron one way on the soiled side.

RED MARKING INK FOR CLOTHING.—A red ink for marking clothes, which is not attacked by soap, alkalies, or acids, is prepared as follows: Enough finely pulverized cinnabar to form a moderately thick liquid is very intimately mixed with egg albumen previously diluted with an equal bulk of water, beaten to a froth, and filtered through fine linen. Marks formed on cloth with this liquid, by means of a quill, are fixed after they have become dry, by pressing the cloth on the other side with a hot iron. The ink will keep in well closed bottles for a long time without separation of the suspended cinnabar.

MUTTON STEW.—Take such scraps of mutton or lamb as are not fit for chops or cutlets. Just cover with water. Add a little onion and parsley, and season with salt and red and black pepper. Boil two eggs hard, or if making a good-sized stew use more. Mash or grate the yolks fine, and stir them into a tablespoonful of butter and the same amount of browned flour. Stir into the stew just before dishing. Let it boil up once after adding this, and serve as soon as it thickens.

COFFEE STARCH for black and dark brown calicoes, percales and muslins; also for grass cloths and Hollands. Mix two table-spoonsful of the best starch into a paste with cold water. Stir it into one pint of boiling coffee well settled. Boil ten minutes. Stir a few times with a sperm or wax candle. Strain through a cloth and use.



PUBLISHED BY
DEWEY & CO.
A. T. DEWEY. W. B. EWER. G. H. STRONG. J. L. BOONE
PRINCIPAL EDITOR.....W. B. EWER, A. M.

OFFICE, No. 224 Sansome street, Southeast corner of California street, where friends and patrons are invited to our SCIENTIFIC PRESS, Patent Agency, Engraving and Printing establishment.

Subscriptions payable in advance.—For one year, \$4; six months, \$2.25; three months, \$1.25. Remittances by registered letters or P. O. orders at our risk.
ADVERTISING RATES.—1 week. 1 month. 3 months. 1 year
Per line.....25 .80 \$2.00 \$5.00
One-half inch.....\$1.00 \$3.00 \$7.50 24.00
One inch.....2.00 5.00 14.00 40.00

Large advertisements at favorable rates. Special or reading notices, legal advertisements, notices appearing in extraordinary type or in particular parts of the paper, inserted at special rates.

No Quack Advertisements Inserted in these columns.

SAMPLE COPIES.—Occasionally we send copies of this paper to persons who we believe would be benefited by subscribing for it, or willing to assist us in extending its circulation. We call the attention of such to our prospectus and terms of subscription.

SAN FRANCISCO:

Saturday, May 22, 1875.

TABLE OF CONTENTS.

GENERAL EDITORIALS.—Wilson's Snipe; The Crops this Week; Ward's Fertilizer, 337; Strawberries in London; Benton's Merinos; Birds and Caterpillars—A Hardshell Sermon, 344. More Openings for Immigrants; Woods for the Centennial; New Patent Camp Lounge, 345. Patents and Inventions, 348.
ILLUSTRATIONS.—Wilson's Snipe, 337. New Patent Camp Lounge, 345.
CORRESPONDENCE.—Live Fences and Hedges; From Los Angeles County; Fertilizers; From Lake County; From Duarte, Los Angeles County; Wheat at Rio Vista; Saving Boot Soles, 338.
SHEEP AND WOOL.—Eastern Wool Market; Sheep Raising, 339.
STOCK BREEDERS.—Live Stock at the Centennial, 339.
THE VINEYARD.—Summer Work in the Vineyard, 339.
PATRONS OF HUSBANDRY.—Progress of the Patrons in California; New Granges; Meetings; Etc., 340-41.
AGRICULTURAL NOTES from various counties in California and Oregon, 341.
HOME CIRCLE.—Why the Sea Complain (Poetry); When Elihu Came Home; The Family Hammer; The Spare Bed; The Fire that Old Nick Built; Carpets, 342. In the Bottom Drawer; Touchy Husbands; Can this be True? 343.
YOUNG FOLKS' COLUMN.—Persevere (Poetry); Mr. Choate and the Ambitious Boy; A Monkey Mass Meeting, 343.
GOOD HEALTH.—Necessity of Sleep; Coughing and Colds; Telegraph Malady, 343.
DOMESTIC ECONOMY.—The Art of Cooking—No. 1; Cleaning Silk Dresses; Red Marking Ink for Clothing; Mutton Stew, 343.
HORTICULTURE.—How Good is the Paw-Paw? A Floral Giant, 345.
MISCELLANEOUS.—Extracting Needles or Bits of Iron, 338. Polishing Veneers; Disinfectant and Mouth-Wash, 339.

Strawberries in London.

The first English strawberries appeared in the London market on March 23d, and were sold at the rate of \$1.50 per dozen. San Francisco was just three weeks ahead in time, our first strawberries appearing on March 2d, and selling at \$2 per lb. A novel feature of our early strawberry market was the rapid advance on first prices. They—the prices, not the strawberries—went up at once, for several days selling at \$2.50 per lb., and on March 11th, going up to \$3 per lb. This, however, was for one day only, a rapid decline ensuing; and when they reached the reasonable price of 25c per lb. they were at once classed by every day people among the things that it will do to buy. This point was reached about four weeks ago, and from that time to the present there has been a perceptible decline, but the thousands of friends have remained true to them. They knew that the price of strawberries was falling but they did not stand under.

GRAIN SAMPLES.—Our agent, Mr. J. W. Riley, brings to our office samples of wheat and barley gathered from fields in the vicinity of Stockton. They were selected mostly with a view to show the effects of frost and wind. Some of these were from the fields which Mr. R. sent us samples from immediately after the noted frost. They are still strongly marked with the effects of that blight, but have done better than was expected. In the parcel are a few seeds of wheat from a field belonging to Mr. Brooke, Business Manager of the Grangers' Business Association. This is a choice variety of wheat; the "Pride of Butte" is the name by which it is known. It possesses good characteristics, and though exhibiting a fine head is still full of vigor, giving promise of further development.

DEFERRED.—The article on "Spaying Cows," which was announced to appear in this number of the Press, is held over for one week, in order to have it properly illustrated.

The Weed Resources of California.

The "honeymoon" of California agriculture is evidently drawing to a close. While this blissful period lasted it was not expected that the farmer in his ardent attachment would countenance the recognition of any possible faults in his now partner; and when in their search for what is good and glorious—and for nothing else—the admirers of the agricultural resources of California can no longer fail to recognize the presence of accompanying evils, such as vermin, weeds, etc., they will still deny that they are indigenous to the country, and are disposed to turn to the East with the accusation, "you did it." They are slow to believe that the opening of new districts in their own State, and a more intimate agricultural intercourse, introduces these pests to their new pastures.

If California were really free from such evils we might with propriety say of it, what is often said of some supposititious characters, that it is "too good to live," and if any sensible farmer were to hear of a country where the soil and climate favors both animal and vegetable life in a remarkable degree, yet is free from weeds and predatory vermin, he would at once "suspect" it, as he would a person reported as possessing rare abilities and noble impulses, yet free from all defects of character.

But California is not too good and pure—agriculturally at least—to live; for even though it were possible to exclude the pests of the East from this country, present indications warrant the belief that our own resources in this line are abundant.

In the line of animal pests the caterpillar has already become a serious annoyance; yet it is now admitted to be at least an old settler here, if not a native, though until quite recently it lived in comparative seclusion. It has been attracted to our gardens by more abundant and better food. Such was the course of the Colorado potato beetle. Long ago they were discovered by entomologists in Colorado and adjacent Rocky Mountain regions, feeding upon a wild relative of the potato plant growing there, but when the settlers of that country brought with them and cultivated the improved varieties of potatoes, they abandoned the food that nature had apparently provided for them and "went for" the better kinds. Being thus furnished with more abundant and better food, they naturally increased in numbers at an alarming rate.

So is it, we may reasonably suppose, with vegetable pests, isolated spots furnishing a sort of prison bar are appropriated to their use by nature, and when we open these partially hidden chests to obtain therefrom fruits, grain, grasses, etc., out pop these vegetable imps and can never again be confined within their original quarters. Within the few months just past we have received several samples of weeds new to the farmers of California, and supposed to be Eastern or foreign importations. The latest of these is a vegetable parasite, sent to the RURAL PRESS, by W. G. Penebaker, of Farmersville, Tulare county, with the accompanying note:

"Some months ago I noticed two or three articles in your valuable paper with reference to the dodder and its origin. The opinion of the writer was that it had been brought to this country in alfalfa seed. I have no doubt but that is correct. Now I find a growth on my farm which I take to be a species of dodder. I have a small field of alfalfa, about twelve acres, with a water ditch through and along one side of it. On the banks of one of those ditches grows a vine or growth, a sample of which I enclose. The strip is about four feet wide and fifty feet long, completely wiping up everything in its reach, drawing the substance from every weed and spear of grass or vegetation that it adheres to, and seems to spread very rapidly. It is now so thick and so matted that it is almost impossible to walk through it."

"When it first comes up, it is of a deep green color, but when it fastens to the weeds, or any other vegetation and breaks loose from its root, it begins to change its color to a yellow or orange, and as it grows older it is a deep bright golden color. I would be pleased to know just what it is. I am sure that it was not mixed with my alfalfa seed, for I cannot find a particle of it growing among the alfalfa. It seems to be a natural production."

This parasite may be a species of dodder, but it differs materially from those sent us in connection with alfalfa. Those were of a finer thread and the growth was more winding, enclosing the stalk to which it adhered with a relentless choking grip; while this has apparently a direct upward tendency in its growth. They are, however, alike in color. We are therefore confident as to what this parasite is not, but are not prepared to give an opinion as to what it is. It is a novelty to us and to others who have examined it. There is, however, nothing surprising in this, for in California there are no doubt many plants that have never yet been noticed. The seclusion of some of these is undisturbed as yet by cultivation or even by grazing. Others have been to a limited extent transplanted, or re-sown in different localities, securing a slight acquaintance among farmers, but remaining unrecognized, or at least unclassified by botanists. We

are inclined to the belief that if the course of the alfalfa parasite were thoroughly traced out, it would be found to have had its origin in some isolated spots in our State, instead of having been imported from Chili.

And we suggest in this connection that farmers are, to say the least, inclined to pay too much deference to these vegetable parasites. In some cases they seem almost disposed to abandon the field to these supposed new comers. If these unwelcome guests are annual they can be readily exterminated by feeding or cutting before the seeds are matured, if perennial, cultivation will do it.

Articles Wanted.

HONEY EXTRACTOR.—In answer to inquiries by a gentleman of San Diego, in regard to a honey extractor, we would say that after visiting several establishments flowing with honey and other good things, we reached the house of Lynde & Hough, corner of Davis and Oregon streets, and extracted from the proprietor the following information: They have a honey extractor, said to be a standard, reliable article, which they sell at \$15. They give references to substantial bee men who are using it. Our correspondent would do well to address Lynde & Hough.

FRUIT JARS.—A lady writes to the RURAL PRESS from Plano, Tulare county, as follows: "Please tell us if there is a place on this coast where glass-ware is manufactured. If so, why may not we, who need so many fruit jars, cans, etc., order direct from headquarters, and thus avoid middlemen? We are in a fruit-growing region, and are glad to know we have a paper devoted to the interests of those who do their own work. Is there a cheap hand mill in market, adapted to household use, to express the juice from apples and other fruit for domestic purposes? I have failed to find these things among the advertisements in the RURAL. H. E. P."

In regard to glass jars we would refer our correspondent to O. Lawton & Co., Nos. 609 and 611 Market street, San Francisco. By addressing this house, she and her neighbors could probably obtain satisfactory terms.

Hutchinson's cider and wine mill comes nearest to what we suppose to be wanted in this case. It is claimed for it that it will grind from six to eight bushels of apples and from ten to twelve bushels of grapes, currants, etc., per hour, and that one man can make with it from one to three barrels of cider or from one hundred to one hundred and fifty gallons of wine per day; while it is always ready to make a pitcher or pail of cider in a few minutes. The weight of this mill is one hundred and fifty pounds. The price of mill and press complete is \$25, for press only, \$15. Treadwell & Co., Market street, S. F., and Marcus C. Hawley & Co., Front street, have this mill for sale.

We will repeat here what has been said on former occasions of a similar character: That any service which we can render to our friends—especially the ladies—in cases where the dealers do not advertise their wares fully through the RURAL PRESS, will afford us pleasure in the performance; but, at the same time, we confess that we are a little chagrined and mortified that an intelligent and prosperous farming community cannot find all that they want in the way of merchandise advertised in their favorite paper, the PACIFIC RURAL PRESS.

Benton's Merinos.

This is a new and very fine stock of thoroughbred merinos, just imported by F. E. Benton, by whose invitation we recently visited the yard on Howard street in this city to inspect this fine lot of sheep. The first point noted was the marked uniformity of the whole flock, over fifty in number, good caps, fine contour and well covered limbs. Some of them were thoroughly examined by us, and the legs, belly and all parts of the body were found to present a first-class covering. The fleece handles well, and in color, length and other qualities is up to the highest standard. The "patriarch of the flock" is "Big Leg, Jr.," half brother to the famous "Big Leg" owned by Severance & Peet. This is a fine animal in every respect. It is believed that Big Leg, Jr., would shear thirty pounds this season.

Mr. Benton is a young man, but he has for several years been exclusively engaged in connection with the best merino stock in the country. He is in every respect deserving of success, and we have no doubt he will achieve it, for he possesses the requisite judgment, experience and pluck. The stock now on hand was purchased by himself during a recent visit to Vermont for this special purpose, and all of his business will be strictly under his personal supervision.

STILL "EDITORIALIZING."—We have another little editorial bone to pick with the Sacramento Valley Agriculturist. This time it is a chicken bone. A few weeks since we published a first-class poultry article, written for the RURAL PRESS by one of our regular contributors. The writer sent a proof to the Sacramento Valley Agriculturist with the special request that it should be credited to the RURAL PRESS, but, lo and behold! it was put forth in that paper as a fresh editorial, with no acknowledgment of the circumstances under which it appeared. This is not the first time that the RURAL PRESS has had occasion to urge its agricultural neighbor to beat its scissors into steel pens and turn its paste pot into an ink stand.

Birds and Caterpillars — A Hardshell Sermon.

[Written for the Press by JEANNE C. CARR.]

We have had an unusual visitation of caterpillars, and have done what we could for the Nebraska sufferers.

What the legitimate connection may be between the above statements, I leave the reader to puzzle out for himself. I take them simply as a text for a sermon upon caterpillars and grasshoppers, wild food for wild men and for the myriad songsters which fill the great temples of nature with a continual praise service, clearer and more melodious than ever fell from human lips.

Every few years nature offers us a gratuitous lesson upon the importance of preserving the divinely appointed equilibrium between the different orders of creation. I take it to heart as I pick the hairy caterpillars out of the ruffles of my gown, and see the Frenchman go by with his game bag full of little birds not included in the provisions of the game law.

Thirty-two species of small birds inhabited our orchards and gardens in the East, whose food was caterpillars, currant worms, canker worms, apple tree worms, etc. Many of these insectivorous songsters were identical in species with those of the Pacific coast, and were enormous feeders. A pair of sparrows will consume 3,360 caterpillars in a week. The robins and all the thrush family dispose of a still greater number. The blackbirds, cedar bird, cuckoo, bobolink, all the finches and warblers feed on them. I am not certain whether larks take kindly to hairy caterpillars, but they delight in plump grubs and larvae of all kinds. A pretty book has been written upon the "Population of an Apple Tree." A very remarkable book, a fine large octavo, superbly illustrated, entitled "My Garden," by Alfred Smea, shows what a population of birds and insects may be found within an area of six acres in England. Dr. Gibbons in an instructive lecture before the Farmers' club in Oakland told us how squirrels had multiplied as the small and to us harmless snakes had been killed off.

If I had a garden it should be a penal offence to kill anything except slugs, who commit their depredations in the night when the birds are asleep. A fresh lettuce leaf rubbed with coal oil, and laid among the daisies over night will be seen to have a number of stupefied slugs under it in the morning, when they may be fed to the chickens and the pigeons, who will eat them greedily. Indeed the house pigeon is one of the most unlimited worm devourers. It is a pity that every suburban house should not have at least one-eighth of an acre of ground, with one large tree, and a constant trickle of water in a corner to invite the birds. Live cats should be discouraged in the garden, but their stuffed skins, with horrible yellow eyes, may do duty in the cherry trees. Perhaps you think the cats are a part of nature's equilibrium, and so they are; but in our town life the cat element is greatly exaggerated.

But to come to the secondly of my sermon, what has this to do with grasshoppers. The law of equilibrium has been disturbed, or the poor farmers of Nebraska would not have needed our help. Two years ago, while taking my three months' walk in the Sierras, I saw just how this is brought about. The grasshoppers were the Indians' favorite food, and they made annual pilgrimages to their gardens, gathering myriads of them, and so reducing the number of eggs by myriads more. But we have put a stop to all that. Again, the grasshoppers' favorite breeding places, the high warm mountain meadows, where their young find abundant food in the tender, quick growing herbage, is spoiled by the sheep. Three or four years' pasturage will destroy nearly all the mountain plants; they die slowly, but their fibrous roots no longer keep the soil from being washed away when the snow melts, and the grasshoppers know better than to leave their children to starve. They can travel fast, and the Nebraska wool growers having spoiled their pastures, they are obliged to come down upon the Nebraska wheat growers to get even. So man in his haste to get rich creates the plagues which beggar him.

The readers of the St. Nicholas magazine have doubtless read the proposal that the children should form "Bird's Protection Societies." Childrens' Natural History Societies would be a great deal more than the parties expressly designed to do away with childhood, and substitute for its purity and friendliness towards all nature, the poverty of emulation and show. When all the school children consider the birds and the grasshoppers, the good time when nothing shall devour or destroy in our earth, home will come and the lost balance restored. Won't some of the grown folks help it along?

ON FILE.—"Spaying Cows," S.; "Letter from Panama, Kern County," T. B.; "San Benito County," A. W. T.; "Pleasant Valley and Surroundings," W. O. N.; Paso Robles Grange," D. W. J.; "Hay Crops," G. R.; "A New Industry," G. W. M.; "Lice on Fowls," M. E. Jr. Will appear next week. "Salida Grange," "Bernardo Grange," "Pescadero Grange," "Keystone Grange," "Mussel Slough Grange," "Panama Grange," "Elko Grange."

More Openings for Immigrants.

Immigration still continues in full force, the arrivals in San Francisco during the past week averaging about 300 per day. We hear of a few cases of the disconcerted and homesick who have started a faint counter-cry of "Eastward ho!" and retraced their steps accordingly, but as a general thing the grand scheme is working admirably. From observation and inquiry we are convinced that there are no more people seeking employment in San Francisco at the present writing than during the corresponding week of 1874.

One sad case occurred on Monday of this week, of a stranger falling in a fainting fit in one of our most crowded streets, and while administering to his recovery it was ascertained that he had not tasted food during twenty-four hours. There is no need whatever for such cases to occur in this city of generous plenty. But thus far there have been no demands made upon the charity of our citizens by immigrants. Our city papers report no indications of destitution or suffering among this class.

We could mention instances where the residents of the cities, villages and farming districts of the State have made special trips to San Francisco to procure needed help; while our exchanges, from nearly all parts, put in their claims for a portion of the new comers. The *Lake County Bee*, May 13th, closes an article on this subject as follows: "Come along girls, and you can get employment in our best families at remunerative wages and treated as one of the family. Good, sober, industrious hands, male or female, can find work here the year round. Lake county contains about 2,500 square miles in area; one third of which is the very finest agricultural land to be found anywhere, finely watered and timbered, no drouths, no failure of crops, and the very best climate in the State. We grow almost everything here; wheat, rye, oats, barley, corn, potatoes, beans, peaches, melons, apples, plums, peaches, apricots, pears, cherries, almonds, grapes, etc.; everything needed by civilized people. If you wish to buy lands, here you can buy cheap, from about five to forty dollars per acre, owing to quality and improvements, or if that is not cheap enough, there is yet more public land to be had at government price if you will but come and take it; true it is mountain land, covered with heavy pine timber, but in a very few years will be worth \$100 per acre for the timber."

The *Sacramento Record* addresses the following to those immigrants who are looking for labor on farms: "At Lincoln, Placer county; at Wheatland, Yuba county; at Chico or Nord, Butte county; at Colusa or Princeton, Colusa county; at Woodland, Cacheville or Plainfield, Yolo county; Dixon or Suisun City, Solano county; or at many other country towns in these counties, or many others we might name, good farm laborers will meet farmers every day and every hour in the day for three or four months to come, not only ready but anxious to hire good, steady and trusty laborers. In all these places you can look right out into the country and see the work going on, and at once you become imbued with the spirit of the people with whom your lot must be cast. You will find the men who feel as you do, who think as you do, who act as you do, and who work as you do, and in a very short time, even before you know it, you will have become identified with the country and inspired with a love for it, a love for its mild climate, for its beautiful and productive valleys, for its grand mountain ranges, for its enterprising, generous hearted and hospitable people. Don't go to the cities, there to lay and stray under expenses and get the blues. Put right out for the country and accept the first opportunity for employment and go to work, and our word for it, you will learn more of what will be really valuable to you about the country and its people in one month's labor on a farm than you can learn in the city in a whole year."

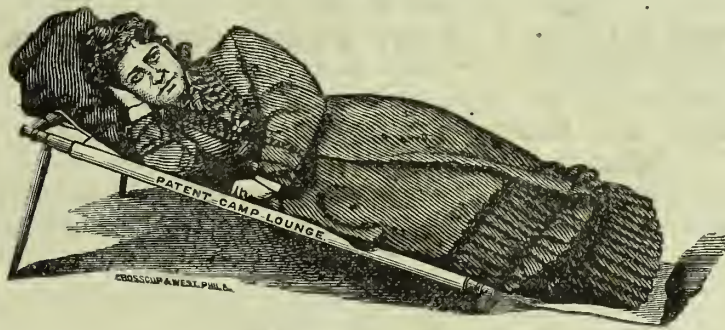
The *Gilroy Leader* thus states some of the advantages to immigrants who wish to come to that part of Santa Clara county:

"The erection of a tannery in Gilroy would prove a source of immense profits. We doubt whether there is a place in the State where an investment of this kind would be attended with more bountiful returns than it would be in this place. Every advantage and convenience necessary for the manufacture of leather can be found here, and all that is wanted is a man of energy, enterprise, experience in the business, and a small capital to make it a success. There is no place in the State where the soil is better adapted to the successful culture of the sugar beet than some surrounding Gilroy. On the eastern side of town, especially, the soil is moist in the driest portions of the year, and not swampy or excessively wet in the rainy season. Water can always be found at a depth of from four to five feet. A few experiments have already been made by our citizens in the culture of the sugar beet, attended with the most satisfactory results. Last year they attained a growth varying from seventy-five to one hundred pounds."

The *Lassen Advocate* speaks for Tehama county as follows:

"We are frequently in receipt of letters from parties in the Atlantic States and in this State

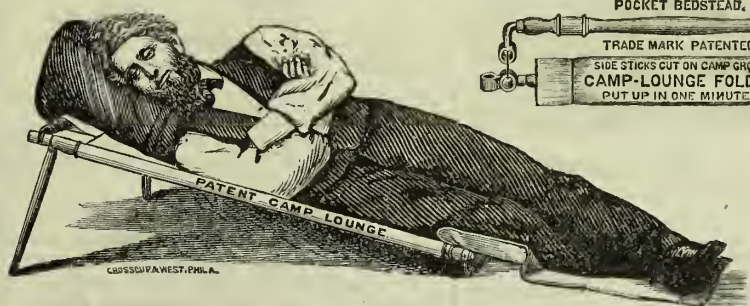
relative to the chances to get land in this section, and what pursuits may be followed here with profit. To such we will state a few facts, from which they can draw their own conclusions. By men with small or limited means locations of lands may be made at Government prices, which may be easily converted into good farms. All the cereals, vegetables and fruits usually grown in the temperate zone are successfully raised here, and thus far have never failed to bring a living price at the farmer's door. Beef, pork and mutton have never failed to find, sometime during each year, a market at prices ranging from seven to ten cents per pound on foot. We presume there is no country on earth where cattle can be raised at a less expense than here. We know men in this county who have thousands of cattle that never ate a morsel that they did not themselves pick up from the public domain without direct expense to their owners. Improved farms can be purchased here for prices ranging from \$10 to \$30 per acre, and the natural soil produces often as high as fifty bushels of grain to the acre, but this of course is above the average yield. We have spoken of Government lands as liable to be located only by men of limited means, because, as those lands can only be obtained by pre-emption or homestead, men who possess considerable means can do better by purchasing private claims. We have also a large area of yellow



LADIES' CAMPING LOUNGE.

pine, sugar pine and fir, all of which are unexcelled by their kind in the world. In the western portion of the county there are tolerable prospects for gold mines, but they are almost entirely undeveloped; and some five miles south from this place there is an inexhaustible mine of iron."

We again call upon our friends in all parts of the State to inform us of their wants in regard to immigration, and to state what inducements their localities offer to people in search of employment or homes. Those who are interested in local prosperity should put their houses in order, not merely for the immigrants of this year, but for a series of years. To suppose



NEW PATENT CAMP LOUNGE.

that the present great rush of immigration is a mere spasm of unrest in the Atlantic States, to be followed by a long, quiet lull, or possibly by a marked reaction, is to take a very superficial view of the matter. We shall look for as large an immigration in 1876.

Woods for the Centennial.

Prof. C. E. Bessey sends us the following card showing that Iowa is getting down to work in the Centennial matter, and, manifesting his usual interest in everything relating to this country, he considerably asks: "What will California do?" We give no definite answer to this question as yet, but it is to be hoped that California will go and do likewise, and we publish the card alluded to as furnishing practical rules upon which work may be commenced:

The undersigned having been appointed by the Centennial Board and the Governor of the State to make a collection of the woods of Iowa, solicits specimens of all the native and introduced trees and shrubs.

The following are desired:
Cross sections of the trunks of the largest specimens of every species of tree and shrub, the sections to have the bark attached, and to be twelve inches in thickness, measured along the grain of the wood.

Rough blocks of wood, measuring 9x7x3 inches.
Fruits and seeds, (pods, nuts, etc.) of native trees and shrubs.

Leaves and flowers of the same, pressed and dried.
In addition to the above, the following data are greatly desired:

Lists of trees and shrubs known to grow in any locality.
Observations on the value of the wood of different trees and shrubs, for fuel, lumber and other purposes.

Observations on the value of the same kind of wood from different localities, on different soils, etc.

Heavy specimens should be sent by freight, the lighter ones by express. PROF. C. E. BESSEY.
Agricultural College, Ames, Iowa.

New Patent Camp Lounge.

The people who are accustomed to go on camping trips every summer, and to hunters, prospectors and others who frequently sleep out of doors, the patent camp lounge shown in our illustration on this page is of interest. As may be seen from the engraving, it makes a light compact couch, easily carried and capable of being quickly arranged for use. The invention is simply a piece of canvas, which, when stretched on a frame, forms a bed or lounge. There are two side sticks, three feet nine inches long, and two girths, one at the head and one at the foot, forming the transverse portions of the frame. The girth forming the head is straight, and into its extremities the shanks of the double ferrules are screwed with right and left hand threads. The inner pair of ferrules receive the ends of the side sticks. The shanks of the ferrules of the lower girth are arched so as to raise the hip of the person reclining a short distance above the ground. The width of the frame can be extended at pleasure. In putting the couch together the side sticks are inserted through the side hems and the head girth through an additional head piece. The foot girth rests on the ground. The girths are

then turned to proper width and the canvas stretched tightly. In order to support the lounge at a suitable incline, two sticks are inserted in the outer ferrules of the double ferrules on the head girth, said ferrules being formed at right angles to those to which the side sticks are inserted. A loose piece of canvas is provided, secured to the main portion, and which rests upon the ground beneath the lower portion of the body and feet of the occupants. The small compass and convenient shape into which the device can be folded is shown in the small cut. It comprises the head and front girths and canvas.

It is not absolutely necessary to carry any of



HORTICULTURE.

A Floral Giant.

EDITORS PRESS:—My habit of scribbling for the *RURAL PRESS* has this effect upon me. In moning around the libraries I am continually wishing I could share more of my findings with its readers. Here, for instance, is a wonderful flower story told in a superb folio volume by M. Marcoy, a recent explorer of the Amazon and its tributaries:

Descending the Ucayali river, between Tierra Blanca and Nanta, his boatman insisted upon pursuing a narrow devious channel leading into the Nuna lakes, that he might see the "atun sisac," or great flowers. Little dreaming what was before him, he found himself moving among a great fleet of leaves and blossoms of marvellous beauty. Like the first observers of our big trees, he wanted other testimony to believe his own eyes; his story appears like an exaggeration. "Brazilian ostriches, and gay-plumaged spoonbills," he says, "were fishing from the great leaves," whose turned-up edges made a perfectly safe and strong raft. "The water of the lake was of inky blackness;" the reader will remember that the waters of the Rio Negro, which owe their color to the same causes, may be distinguished for miles below their junction with those of the Amazon. Against this black surface the noble blossoms, four feet in circumference, varying from a violet rose color to pinkish white were relieved. The under side of the leaf is purple, and the color made deep violet reflections in the water. The "great flowers" were the *Victoria regia*, often described and successfully grown in England and the United States, but of larger size than any hitherto found. M. Marcoy gathered specimens, had a single leaf laid upon sticks and carried by two Indians to his camp, where it was accurately measured, divided into sections and pressed, as a trophy. It was twenty-four feet, nine inches and three lines in circumference, (this leaf has a perfectly plain margin without indentations), the exterior petals of the flower were nine inches long, and the entire flower weighed three pounds and a half. The twisted leaf and flower stems looked like ship's cables, anchoring these wonders of the vegetable world.

Some day there will be in the Golden Gate Park, or in the grounds of the Agricultural College of the future, a conservatory for these and other children of the tropics, where palms will raise their noble shafts under roofs of glass, and rich creepers droop from crystal canopies of light, for the instruction and enjoyment of all our people. JEANNE C. CARR.

How Good is the Paw-Paw?

We are afraid Mr. Bateham, in his remarks on the Paw-Paw in *The Prairie Farmer* of April 3d, forgot a very old and very true Latin proverb: *De gustibus non disputandum*. "Simply abominable," means abominable simply to Mr. Bateham. But as Mr. Webster said of his *alma mater* when he made that speech that gained the "abominable" Dartmouth college decision, "there are those who love it." People are apt to have decided views in regard to this fruit. Those who don't like it are inclined to be intolerant towards those who eat it. Two or three centuries ago the non-paw-paw eaters would have burnt the paw-paw eaters, we fear, very much in the manner that Calvin did Servetus. But an age that permits the eating of pork, the chewing of tobacco, and the drinking of corn juice can well afford to be tolerant towards the paw-paw eaters. Besides, there are too many paw-paw eaters to burn. The hogs do not eat it (no more do they tobacco), but the raccoon, if we remember rightly, an animal generally conceded to know what's what, does eat it. Negroes like it—so say the books and Mr. Bateham; the poor whites like it says Mr. Bateham, and not the books; children like it, say the books, and so say we, but Mr. Bateham is silent on this point. But certainly it must be a good thing in part of Ohio. Let Mr. Bateham speak for his own end of the State, and we will add another quotation from our Yellow Springs authority. "I have eaten the lotus, and don't want to go back," wrote a college president when transported from Massachusetts to Southern Ohio. Like the cardinal bird and the scarlet tanager, which gleam and burn amid its branches, it reminds us of the tropics. Indeed, in its own character as well as in its botanical relations, it is the most genuine representative of the fruits which a vertical sun can ripen, that this corner of the world produces. As such, it will be sure, with the increase of horticultural zeal and knowledge, to come to a wider recognition and welcome. Had Thoreau wandered west instead of north, and found an Ohio paw-paw grove in some calm October day, our gardens and our literature would certainly have been the richer.

Speaking seriously, we believe that Mr. Bateham cannot have seen the best specimens of the paw-paw. Like the persimmon, it can be a very bad-tasted fruit when grown in the dark and damp creek bottoms under a close canopy of leaves. But on a warm hillside, we have found specimens that would bear comparison with fruits of higher pretensions. It becomes a veritable custard-apple. The early-ripening varieties, as is also the case with the persimmons, we have found the best.—*Prairie Farmer*.

THE *Los Angeles Express* says that a great mass of honey has been found in a vault in the Catholic cemetery of that city. It will probably be known in the market as Catacomb honey.

HUNDREDS of tons of hay are now being brought to Antioch, for shipment to San Francisco.

BREEDERS' DIRECTORY.

PURCHASERS OF STOCK WILL FIND IN THIS DIRECTORY THE NAMES OF SOME OF THE MOST RELIABLE BREEDERS. OUR RATE.—Six lines or less inserted in this directory at 50 cts a line per month, payable quarterly.

CATTLE.

R. ASHBURNER, Baden Station, San Mateo Co., Cal., breeder of Short-horn cattle. Pure Bred Bulls for sale, from cows of choice milking strains.

J. BREWSTER, Galt Station, Sacramento Co., Cal., breeder of Short-Horn Cattle.

J. D. CARR, Gabilan, Monterey Co., Cal., breeder of Trotting Horses, Short-Horn Cattle, Thoroughbred Spanish Merino Sheep and Swine.

A. MAILLARD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.

W. L. OVERHISER, Stockton, San Joaquin Co., Cal., breeder of Short-Horn Cattle and Berkshire Swine.

PAGE BROTHERS, 304 Davis street, San Francisco, (of Cotate Ranch, near Petaluma, Sonoma Co.): Breeders of Short-Horns and their Grades.

R. G. SNEATH, Menlo Park, Cal., Thoroughbred Jersey Bulls, from one to two years old, for sale. \$100 to \$150.

STANTON & POWERS, Sacramento, Cal. Breeders of Jersey Heifers and Bull Calves at low rates. Address L. C. Powers, Sacramento, Cal.

MOSES WICK, Oroville, Butte Co., Cal., breeder of Short-Horn Cattle. Young bulls for sale.

SHEEP AND GOATS.

H. F. BUCKLEY, Hopeton, Cal. Thoroughbred also $\frac{1}{2}$ and $\frac{3}{4}$ Cotswold grade sheep.

MRS. ROBERT BLACOW, Centerville, near Niles Station, Alameda Co., Cal. Pure-Blooded French Merino Sheep for sale.

N. GILMORE, El Dorado, El Dorado Co., Cal., importer and breeder of Angora Goats.

LANDRUM & RODGERS, Watsonville, Santa Cruz County. Pure-Bred Angora Goats and Cotswold Sheep for sale.

SEVERANCE & PEET, Niles, Alameda Co., Cal., breeders of Thoroughbred Spanish Merino Sheep.

A. G. STONESEFER, Hill's Ferry, Stanislaus Co., Cal., breeder of Pure-Blooded French Merino Sheep.

L. U. SHIPPEE, Stockton, Cal. Importer and Breeder of Spanish Merino Sheep, Durham Cattle and Essex Swine.

POULTRY.

GEO. B. BAYLEY, Cor. 16th and Castro streets, Oakland, Cal. Imported Brahmas and other choice Fowls for sale.

ALBERT E. BURBANK, 43 and 44 California Market, San Francisco, importer and breeder of Fancy Fowls, Pigeons, Rabbits, etc.

M. EYRE, Napa. Bronze Turkeys, Emden Geese, Choice Fowls, Pigeons, Rabbits, Ferrets.

WILLIAM KNOWLES, Brooklyn, Alameda Co., Cal., has for sale Eggs for Hatching, carefully packed, from pure-bred Bronze Turkeys, at \$7.50 per dozen; Brown Leghorns at \$4.00 per dozen; Houdans, White Leghorns and Buff Cochins at \$3.00 per dozen; two dozen for \$5.00. Sent C. O. D. to any address.

Mrs. L. J. WATKINS, Santa Clara. Premium Fowls, White Leghorn, S. S. Hamburg, Game Bantams, and Aylesbury Ducks. Also, Eggs. 21v8-3t

Live Stock Notices.

E. W. WOOLSEY,
BREEDER OF



Thoroughbred Spanish Merino Sheep,

From Vermont Premium Stock,

At Berkeley, Alameda County. Horse cars every half hour from Broadway Station, Oakland.

CITY OFFICE, 418 CALIFORNIA STREET, S. F.

The Imported Draft Stallion, ADOLPH,



Will make the Season of 1875 at the Stable Proprietor,

COR. FOURTEENTH AND MISSION STREETS,
SAN JOSE,
COMMENCING MARCH 1st, AND CONTINUING FOR NINETY DAYS.

Adolph was imported from Belgium to Illinois in June, 1877, and to California in October last. He is a pure-bred Draft Horse, of the French Farnamback stock, of a dark brown color, good life, kind disposition and fine movement for a horse of his size. Is seven years old, 16 $\frac{1}{2}$ hands high, and weighs 1,650 pounds.

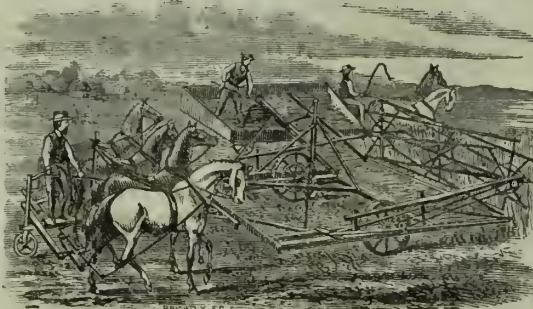
Terms, For the Season - - - \$25.00. Payable during the season in U. S. gold coin, or \$10 paid down and \$15 payable when mare is known to be with foal.

Mares from a distance can be kept on good pasture and cared for at \$4 per month. All accidents and escapes at the risk of the owner.

I have imported 12 head of the same stock of horses from Illinois, and invite examination and comparison with any stock of the class in the State. Four three-fourth blood stallion colts for sale. Can be seen on my farm, three and one-half miles east of the city.

L. V. WILLITS.

OUR IMPROVED HAINES' HEADER,



With Compound Leverage,

Doing away with all Ballast or Weights,

Either on the Lever or Frame; will be appreciated by Header Men. Also, a new device for driving the Knife, making the Header run one horse lighter than any header ever imported. The driving of the Reel is an improvement; in turning, the Reel runs just as fast as when driving straight ahead. The improvements will be found to meet the demands of California trade.

Our Excelsior Mowers are Improved for 1875.

Three Sizes—"Junior," "Medium" and "Senior."

J. I. CASE & CO.'S

SEPARATORS AND STEAM ENGINES

Are the Largest Works of the Kind in the World.

The Threshers and Engines are Made Expressly for this Trade.

Pitts' Down and Mounted Powers, "Foust's" Hay Loader, and Keller & Co's Sulky Revolving Hay Rake,

An age in advance of any other Rake. See these goods before buying; they can be found with us only. Our Stock of Implements is Complete.

Haines' Header Sickles, Excelsior Mowing Knives, Buckeye Mowing Knives, (Nos. 1 and 2), Sections, Rivets, Etc.

THRESHERS, ENGINES, POWERS, HEADERS, REAPERS, MOWERS, RAKES, HAY PRESSES, CORN PLANTERS, CORN CULTIVATORS, CORN SHELLERS, CIDER AND WINE MILLS, HAY CUTTERS, DERRICK FORKS, BELTING, PUSH CARTS, PLOWS, HARROWS, CULTIVATORS, GORHAM SEEDERS AND CULTIVATORS COMBINED, FISH BROS., PACIFIC WAGONS, REGULATOR WINDMILLS AND PUMPS, ETC.

KELLER & CO., - - - 43, 45 & 47 J Street, Sacramento, Cal.
SEND FOR CIRCULAR.



Pure Blooded French Merino Rams

For sale by MRS. ROBERT BLACOW, of Centerville, Alameda County, Cal., near Niles Station, on the Western and Southern Pacific Railroad.

These Sheep are guaranteed of pure descent, from the French Imperial Flock at Rambouillet, and are equal, if not superior, to any of this breed in size and quality of wool, and are proved to be the heaviest shearers in the world.



GABILAN HERD

Spanish Merino Sheep.

I have just purchased of Mr. George Hammond, of Vermont, three car-loads of Spanish Merino Sheep, (335 head, Ewes and Bucks) which, with others that I purchased last Fall, (also direct from Vermont) makes my band of Thoroughbred Spanish Merinos about 650 head.

I am prepared to sell both Bucks and Ewes, of Pure Blooded Spanish Merinos—as good as can be had in the World—so says Mr. Hammond. Parties interested will please give me a call. I am ten miles from Salinas City, Gabilan P. O., Monterey county.

J. D. CARR.

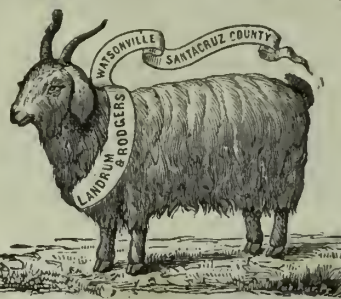
N. B.—I have also Good Graded Bucks for sale, and can dispose of some Good Graded Ewes. J. D. C.

Thoroughbred Spanish Merinos FOR SALE.

60 one and two-year old Thoroughbred Spanish Merino Rams, California bred, from Ewes imported from Vermont, and sired by Severance & Peet's Celebrated Ram "Fremont," and by their Ram "Green Mountain," which took the first premiums at the Bay District and State Fairs. Last shearing—35 $\frac{1}{2}$ lbs.—years' growth.

Also, about 100 Ewe and Ram Lambs, all of "Green Mountain" Stock, bred this year.

B. F. WATKINS,
Santa Clara, Cal.



We respectfully invite the attention of wool growers to our fine stock of Cotswold Sheep and Angora Goats. We have 200 head of Pure Breed Angoras to select from; we have some of the finest Goats in America; we guarantee everything we sell to be as represented; our prices are as low as any in America for the same grade of stock. Call and see, or address,

LANDRUM & RODGERS,

13v7-cow-tf

Watsonville, Cal.

FOR SALE.

400 Pure Blood French Merino Rams,

On the Oristimba Ranch, six miles west of Hill's Ferry, Stanislaus County, Cal. All Rams delivered at the railroad, free of charge. Terms easy and prices liberal.

A. G. STONESEFER.

12 Short-Horn Bulls,

fat and sleek, thoroughbred, just from Kentucky, at SAXE'S Stables, 35 Ritoth Street, between Folsom and Harrison, two blocks from Grand Hotel. Inquire at SAXE'S Stables, or Room 32 Russ House. 3v9-3m

A NEW DISCOVERY

To Save Time and Labor.

The Magical Effect of

ENGWER'S PURE BORAX SOAP

Is wonderful. Washes without much rubbing. Every one knows the value of

AMMONIA and BORAX

For Washing Purposes;

This Borax Soap is principally composed of the combination of the two ingredients, so that it entirely does away with hard labor. A trial will convince any one of its superior qualities. Warranted to give satisfaction and not to injure the finest fabric. Ask your Grocer for

Engwer's Pure Borax Soap.

IF HE DOES NOT HAVE IT, ASK HIM TO GET IT.

GRANGER SOAP.

Once Used, Always Used.

Manufactured by

FALKINBURGH & CO.,

Oregon Street, near Front, San Francisco, Cal.

Geo. W. Chapin, Real Estate Agent, 434 Montgomery St., San Francisco, buys and sells Ranches in all parts of the State. City Real Estate exchanged for country property. MONEY LOANED. Post Office Box 1120

Poultry Breeders.

M. FALLON,

Cor. Seventh & Oak sts.,

OAKLAND, CAL.



Light & Dark Brshmas, Buff, White and Partridge Cochins, Spangled, Golden and Silver Polish, Spangled, Golden and Silver Hamburgs, Pure White-faced Black Spanish, White and Brown Leghorns, Silver Grey Dorkings, Houdans, Silkies, Black-Red Games, Bronze Turkeys, Rouen and Aylesbury Ducks.

All from Premium Stock of Best Strains.

Fowls of above varieties for sale; also, Chickens in their season. Eggs packed with care and sent in rotation as orders are received. 1v9-16p-tf

Bronze Turkeys

12 Gobblers from 8 to 20 months old, 22 to 40 lbs each, for sale now. Hens 14 to 18 lbs.

Emden Geese

40 to 50 pounds per pair at maturity.

BLACK CAYUGA DUCKS,

Games, Brahmas, Leghorns, Houdans, Bantams, etc.

Eggs, fresh, pure, true to name; well-packed so as to hatch after arrival.

For Illustrated Circular and Price-List, address M. EYRE, Napa, Cal.

FERRETS.

RABBITS.

PIGEONS.

Please state where you saw this advertisement.

Woodland Poultry Yards.

W. J. PRATHER, - - Proprietor.



PRICE LIST.

Eggs PER DOZEN.	FOWLS PER TRIO.
Light and Dark Brahmas..... \$3.00	\$15 to \$25
Buff and Partridge Cochins..... 5.00	15 to 25
White Cochins..... 5.00	15 to 25
White Polands..... 6.00	15 to 25
Houdans..... 4.00	15 to 25
S. and G. Spangled Hamburgs..... 6.00	15 to 25
White Leghorns..... 4.00	12 to 20
Brown Leghorns..... 6.00	15 to 25
Golden Seabright Bantams..... 5.00	12 to 15
	PER PAIR.
Bronze Turkeys..... 8.00	\$30
Rouen Ducks..... 4.00	10
Black Cayuga Ducks..... 4.00	10
Aylesbury Ducks..... 4.00	10

LOOK!



ALBERT E. BURBANK, Importer and Breeder of Fancy Fowls, Pigeons, Rabbits, etc. Also Eggs for hatching from the finest of imported stock. Eggs and Fowls at reduced prices. Send for Price List.

ALBERT E. BURBANK,
1v8-3m 43 & 44 Cal. Market S.F.

LAND PLASTER.

(Sulphate of Lime.)

This fertilizer is especially well adapted to California lands and climate, and is destined to be used to immense advantage.

PRICES GREATLY REDUCED.

In bulk, \$10 per ton; in barrels or bags, \$12.50.

Golden Gate Plaster Mills.

LUCAS GESNER & CO.,

215 and 217 MAIN STREET, SAN FRANCISCO.

J. & P. N. HANNA,

IMPORTERS AND DEALERS IN

Grain, Wool, Ore and Bean Bags, Flax, Cotton and Linen Twines.

COTTON, DUCK, RAVENS AND DRILLS—33, 36, 40 and 45-inch Wide Duck; 8, 10, 12 and 15-Ounce Duck.

Ore Bags, Tents and Hose MADE TO ORDER.

Nos. 308 and 310 DAVIS ST.,

San Francisco, Cal.

CARD.

EXCELSIOR FORCE PUMP

greatly improved. COPPER LINED BRASS VALVES AND VALVE SEATS every way equal to a BRASS PUMP. PRICES reduced. Send for Circular. BRITTAN, HOLBROOK & CO., Agents.

A GOOD BARGAIN.

\$500 will buy a good, pre-emption claim of 160 acres in Monterey County, with a good Dwelling House that cost more than that amount, situated one-half a mile from the Los Angeles Stage Road, and about the same distance from the line of the Southern Pacific Railroad. Apply to

MRS. ROWLANDSON,
On the Premises, San Antonio, Cal.

Miscellaneous Notices.

California Farmers Mutual Fire Insurance Association.

Office, 6 Leidesdorff St., - San Francisco.

Directors:
A. WOLF, A. W. THOMPSON, I. C. STEELE,
I. G. GARDNER, J. C. MERRYFIELD, J. D. BLANCHARD,
G. P. KELLOGG, Treas.

Finance Committee:
I. G. GARDNER, J. C. MERRYFIELD, A. W. THOMPSON

Trustees:
J. M. HAMILTON, Lake Col. C. STEELE, San Mateo Co
J. C. MERRYFIELD, Solano Co. A. B. NALLEY, Sonoma Co
G. W. COLBY, - Butte Co. O. S. ABBOTT, Sta Bar's Co
H. B. JOLLEY, - Merced Co. A. W. THOMPSON, Sonoma Co
A. WOLF, San Joaquin Co. E. W. STEELE, SL. Chisgo Co
J. D. BLANCHARD, Pres't. W. H. BAXTER, Sec'y.

This association is organized for the purpose of affording the farmers of this State the means of safely insuring against loss by fire, at actual cost of insurance, without being connected with city risks. a822-tf

Averill Chemical Paint,

MANUFACTURED BY THE

Cal. Chemical Paint Co.

PURE WHITE, AND ANY SHADE OR COLOR.

This Paint is prepared in liquid form, READY FOR APPLICATION—requiring no thinner or dryer, and will not spoil by standing any length of time.

It is Cheaper, more durable, more Elastic, and produces a more Beautiful Finish than the best of any other Paint.

It will not Fade, Chalk, Crack, or Peel off, and will last twice as long as any other Paint.

In ordering White, state whether for Outside or Inside use, as we manufacture an Inside White (Flat) for inside use, which will not turn yellow, and produces a finish superior to any other White known.

Put up in 1/2, 3/4, 1, 2 and 5 gallon packages, and in Barrels. Sold by the Gallon.

For further information send for Sample Card and Price List, or apply to the office.

OFFICE AND DEPOT: FACTORY:
117 Pine Street, near Front. Cor. 4th & Townsend Sts.
3v9-cow-bp-1y SAN FRANCISCO, CAL.

AMMONIA!

For Washing and Cleaning Purposes.

For Sale by all Grocers.

This article is universally used in Europe, and, recently introduced for general family use in San Francisco and neighborhood, is already in great demand. It is now the intention of the manufacturers to introduce it all over the Pacific Coast, at prices which will bring it within the reach of every household.

It is unequalled for cleansing Woolen Fabrics, Cutlery, Carpets or Crockery; for Scrubbing Floors, Washing Paint, Removing Grease Spots, Shampooing or Bathing.

It renders water soft, and imparts a delightful sense of coolness after washing.

DIRECTIONS.—For Laundry, use two to four table-spoonfuls to a wash tub of water. For bathing, use one table-spoonful in the bath tub. For removing grease spots, apply with a brush, undiluted, and wash with water afterward. For stimulating the growth of plants, use a few drops in every pint of water used in watering.

PRICE.—Per Pint Bottle, 25 cents; per quart Quart Bottle, 40 cents; per Half Gallon, 75 cents.

Also, SULPHATE OF AMMONIA for chemical purpose, fertilizing, and the preparation of artificial manures. AMMONIACAL PREPARATION for the prevention and removal of boiler scale. CRUDE AMMONIA, for general manufacturing, and PURE LIQUOR and AQUA-AMMONIA for chemical and pharmaceutical purposes.

Manufactured by the

SAN FRANCISCO GAS-LIGHT CO.
cowbp

Books Published by

A. ROMAN & CO., SAN FRANCISCO.

THE RESOURCES OF CALIFORNIA. By John S. Hittell. Sixth Edition, rewritten. "The most complete and comprehensive work of the kind."

One volume, 12mo., cloth.....\$1 75

One volume, 12mo., paper.....1 25

NEVADA AND CALIFORNIA PROCESSES OF GOLD AND SILVER EXTRACTION. By Guido Kustel. The best practical work on the subject.

8vo., cloth.....4 00

8vo., leather.....5 00

LEGAL TITLES TO MINING CLAIMS AND WATER RIGHTS IN CALIFORNIA. By Gregory Yale. 8vo., leather.....5 00

TREATISE ON SILK AND TEA CULTURE AND OTHER ASIATIC INDUSTRIES. Adapted to the soil and climate of California. By T. A. Kendo. 16mo. cloth.....50

SULPHURETS. What they are, how Concentrated, how Assayed, and how Worked, with a chapter on the Blow-pipe Assay of minerals. By Wm. Barstow, M. D. 12mo., cloth.....1

A liberal discount to Booksellers and Newsdealers from the above prices.

Any of the above works will be sent, postage prepaid, on the receipt of the price, by the publishers,

A. ROMAN & CO., No. 11 Montgomery St., S. F.
cow-hp

J. M. NEVILLE. G. H. BRYANT

NEVILLE & CO'S FACTORY

113 Clay and 114 Commercial Sts.,

SAN FRANCISCO.

BAGS of All Kinds,

TENTS, All Sizes and Descriptions.

HOSE for Hydraulic Use.

CANVAS, All Numbers.

TWINE for Sewing, Etc.

DURYEA'S SATIN GLOSS STARCH

AND

DURYEA'S IMPROVED CORN STARCH

Are the Best in the World.

USE IT ONCE AND YOU WILL USE NO OTHER.

For Sale by All Grocers.

FAC-SIMILES OF PRIZE MEDALS AWARDED THE

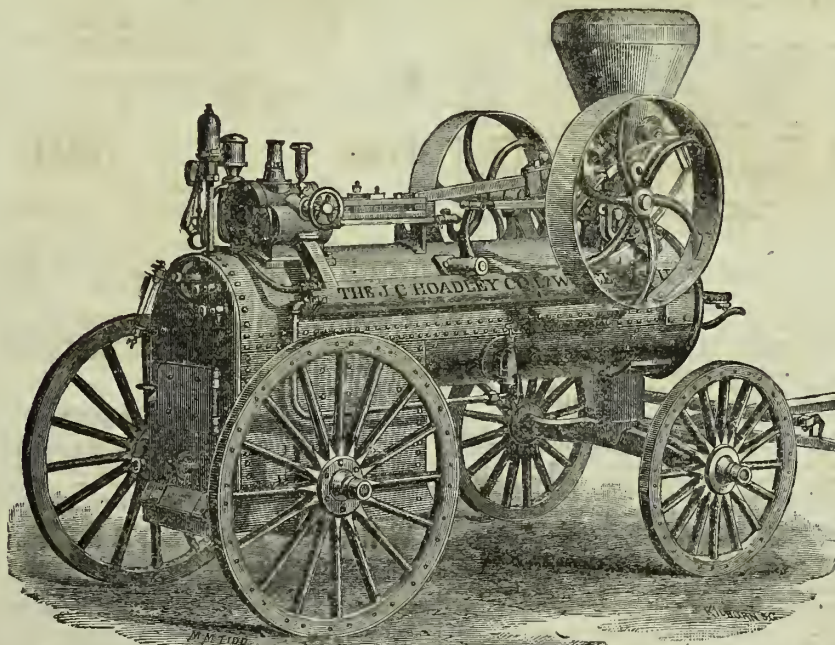


The Messrs. Duryea have succeeded in refining Starch to entire purity and developing its entire strength and clearness, an improvement that will be readily perceived in the great strength of the Starch, the superior luster that it gives, and its reliable uniformity. Much of the so-called starch contains from one-fourth to one-third foreign matter, readily perceived by sourness, mustiness, or a golden yellow tinge, peculiar to inferior starches, a color not desirable for one's linen, but inseparable from the use of common starch. They pledge themselves to the public to give uniformly superior article, from one-fourth to one-third stronger than any other starch in the world, and at the common market rates.

EGERTON, ALLEN & CO., Sole Agents for the Pacific Coast
San Francisco, California.

The Hoadley Regulating Cut-off

THRESHING ENGINES.



The above cut represents the Hoadley New Style Threshing Engine, 15-horse power, with Patent Cut-off Governor. We also have the same style and size, with HOADLEY'S NEW PATENT STRAW-BURNING FIRE BOX. This new Engine has been thoroughly tested, and we are prepared to warrant it to give satisfaction. OUR GUARANTEE GOES WITH EVERY ENGINE INTO THE FIELD. This new engine is fitted out complete, with High Seat, Foot-Board for Driver, California Roller Brake (not shown in engraving), Iron Hub, Patent Wheels, Forged Bent Axle, and all Mountings in Perfect Order.

THE

Hoadley Straw-Burning Threshing Engine

Is no heavier than wood-burning engines of same power, and is unquestionably the Best Threshing Engine in the world. It is Lighter, Better Made, Safer, and will do More Work than any other engine of same size and price ever built. THIS FACT IS INDISPUTABLE.

Farmers and Threshers desiring to buy Straw-Burners for coming season, should secure their Engines Early, as the number is not large, and many are already engaged. All Engines will be tested in presence of customers, when required. Send for Circular and Prices. Address,

TREADWELL & CO., Sole Agents, San Francisco.

RELIABLE.

THE

UNEQUALED.

ONE PRICE DRY-GOODS HOUSE,

42, 44, and 46, Third Street, San Francisco.

THE GOODS ARE ALL MARKED, IN PLAIN FIGURES,

PEIXOTTO & SILVERMAN

IRON PIPE.

Pipe Fittings & Brass Goods,

AT BOTTOM PRICES.

JAMES L. BARKER,

406 & 408 Market street, S. F.,

HARDWARE AND METAL

Commission Merchant.

Orders by mail will receive prompt attention
mrl3-cow-bp



ROWLANDS' ODONTO

Whitens and preserves the teeth, prevents and arrests their decay, strengthens the gums, and gives a pleasing fragrance to the breath. The success of the last seventy-five years has proved its superiority over all other preparations for the teeth. Sold everywhere by all druggists, chemists, and patent medicine dealers. Ask for Rowlands' Odonto, of 20, Hatton Garden, London, and avoid all imitations.

EMPIRE PARLOR MATCHES

We have imported the requisite Machinery and Chemicals to add to our previous assortment of Matches the celebrated Parlor Match, deservedly popular among families and smokers, on account of brilliant burning qualities, and absence of smell or odor. Manufactured from the best sugar pine, a wood superior to any other, and found only upon the Pacific Coast. They are full count, and without objection of any kind. Packed in boxes of most desirable style. Brimstone and Safety Matches of superior quality manufactured, and are guaranteed to give entire satisfaction. Encourage Home Industry, and get superior goods at less cost than the imported article. Ask your Grocer for the EMPIRE PARLOR MATCHES, and be sure you get no others. For Sale by all Grocers.

B. BENDEL & CO.,

MANUFACTURERS, 318 FRONT STREET.

FACTORY—Corner Eleventh and Harrison streets, S. F.
1e6-cow

CALVERT'S



CARBOLIC

SHEEP WASH.

Sole Agency for California and Nevada

T. W. JACKSON'S,

416 Sacramento Street, San Francisco.

GREAT EASTERN AND WESTERN

Horse and Mule Market,

Cor. Fifth & Bryant Streets, San Francisco.

A choice stock of Carriage, Draft and Farm Horses on hand, and constantly being received from the East. All classes of Horses and Mules purchased and sold.

WASHBURN & RANDALL, Props

PACIFIC POTTERY, SACRAMENTO.

MANUFACTURERS OF

Sewer Pipe, Drain Tile,

PLAIN FLOWER POTS,

FIRE BRICK.

JOHN B. OWENS, Agent,

No. 30 California Street, S. F.

Hooper's South End Grain Warehouse

Japan and Townsend Streets.

SAN FRANCISCO, July, 1874.
I beg to inform you I have leased the above first-class Fire-Proof Brick Warehouse, now being erected by Geo. F. Hooper, Esq., and will be ready to receive storage on the 1st of August. This warehouse offers superior inducements to parties desiring to store grain and flour, as it is situated on the Water Front, and on the line of the O. P. R. R. and S. P. R. R. It is well ventilated, rat proof, and combines all the modern advantages and improvements.
Yours respectfully, JOHN JENNINGS.
Advances and insurance effected at the lowest rates. Storage taken at lowest current rates. 4v6-1f

PATENTS & INVENTIONS.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

[FROM OFFICIAL REPORTS FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.]

By Special Dispatch, Dated Washington, D. C., May 18, 1875.

FOR WEEK ENDING MAY 4, 1875.

MAIL BAG FASTENING.—Jas. C. Franklin, Lena, Oregon.

OVERALLS.—Samuel R. Kronse, S. F., Cal.

NEWSPAPER FILE.—Franklin B. Alderson, San Jose, Cal.

CAR COUPLING.—Adolph V. Anderson, Virginia City, Nev.

STEAM PLOW.—Duncan Beaumont, Sacramento, Cal.

REFINING BASE METAL BULLION.—Frederick H. Bousfield, S. F., Cal.

SPRING BED BOTTOM.—Augustus M. Dennen and Casey Newhouse, Stockton, Cal.

ENDLESS WIRE WAYS.—Andrew S. Hallidie, S. F., Cal.

VENTILATING MINES.—Levi J. Henry, S. F., Cal.

AUTOMATIC AIR BLAST FOR GAS MACHINES.—Robert Newson, S. F., Cal.

SHOE FASTENING.—Theophilus Tucker, Oakland, Cal.

RE-ISSUES.

STRAW-FEEDING ATTACHMENT FOR FURNACES.—David Morey, Watsonville, Cal.

STEAM BOILER.—Harvey W. Rice, Haywood, Cal.

The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue.

NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & CO., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with perfect security and in the shortest possible time.

Postal Matters.

The postage on this paper is two cents per single copy.

AFTER July 1 postage to Japan will be four cents on newspapers not exceeding two ounces in weight, and four cents for each two ounces weight of other mail matter, as patterns, merchandise, samples, etc.

LATE rulings of the Postoffice Department require that the postage on third class matter be one cent for every ounce or fraction thereof, and that any writing whatever on samples subjects the package to letter postage. The words "seeds," "books," "plants," etc., written on the wrapper, subject the entire package to letter rates of postage.

ON the first of July next the new law goes into effect increasing the rate of money orders for less than fifteen dollars, from five to ten cents. Over fifteen, and not less than thirty dollars, fifteen cents. Over thirty and not exceeding forty dollars, twenty cents. Over forty dollars, twenty-five cents.

THE Postmaster-General, under authority of the Act of Congress of June 8th, 1875, has ordered that the rate of United States postage on letters sent to or received from foreign countries with which different rates have not been established by Postal Convention or other arrangement, when forwarded by vessels regularly employed in transporting the mails, be reduced from ten to five cents on each half ounce or fraction thereof, to take effect July 1st, 1875.

LITTLE more than six months ago John McKillop, of Butte county, says the Oroville Mercury, bought 1,000 head of sheep. A few days ago he sold, as the spring clip of wool, \$1,230 worth. He has more than 1,000 lambs that will give him a fleece from each this fall. His 1,000 sheep have almost paid for themselves already.

A LEMON whose circumference measured nine inches one way and ten and one-fourth inches the other, raised in the county, was shown to the editor of the Placer Herald last week.

THE Nevada Transcript of Thursday states that the late sown grain in Nevada county will now yield a fair crop of hay.

A GOPHER nine inches long and having tusks an inch long, was killed in San Jose, Thursday morning.

Coming Fairs and Exhibitions.

[Officers of industrial societies will please inform us of their approaching fairs and exhibitions.]

Twenty-second annual fair of the California State Agricultural Society, to commence on the 15th and end on the 25th of September, 1875, at Sacramento.

The Centennial International Exhibition, at Fairmount Park, Philadelphia, will open on the 10th of April, 1876, and close on the 10th of October following.

International Exhibition of 1876, Santiago, will open nominally August 15, 1875, continuing until April 2, 1876. Officially from September 16, 1875, to January 1, 1876. Articles for exhibition may be entered at any time from the 15th of August to the 15th of September and can remain on exhibition if the exhibitor so desires until the 2d of April following.

Tenth Industrial Exhibition of the Mechanics' Institute of S. F., commencing Tuesday, August 17, 1875, to continue open at least one month.

American Pomological Society, Fifteenth session, at Chicago, Wednesday, September 8, 1875, continuing for three days.

The Alabama State Grange Fair, at Selma, Alabama, Tuesday, October 26, 1875, continuing five days.

Fifteenth Annual Fair of the Oregon State Agricultural Society, at Salem, commencing Monday, October 12th, 1875, and continuing six days.

SAFE INVESTMENT.

The Pacific Coast Twelve Per Cent. Consols.

New Method with Assured Advantages.

A rapidly growing interest is being taken in the Pacific Coast Twelve Per Cent Consols, in consequence of the many advantages offered in regard to investment, interest and dividends. So much uncertainty exists in connection with nearly all mining and other speculative companies, there is something very assuring in an incorporation which not only guarantees twelve per cent. per year to all stockholders, but provides for the honest payment of dividends. The Twelve Per Cent. Consols were incorporated on the 12th of February last, for the purpose of transacting a general business in buying and selling mining properties, city real estate, and agricultural and other lands, in the States and Territories of the Pacific Coast. Determined to do only a strictly legitimate business, the Directors rejected the old method in vogue by mining companies generally, and adopted a new one which secures to all parties who become shareholders, equal advantages in the business transacted. By the provisions of the by-laws,

A Sinking Fund

Is to be made of one-half the proceeds of the total capital stock, which shall be sold on the joint account of the original co-owners. The stock will be classified as follows: Sinking Fund, mining property, city real estate and agricultural lands. Before any stock is issued in any class, the property will be appraised by the owners, and the stated value entered upon the books of the Company. Shares for not more than fifty per cent. of the valuation will be issued in any of the classes, and the amount of shares offered for sale in any one class, exclusive of the sales of stock in the Sinking Fund, will not be allowed to exceed 50,000, if sold at less than the par value of a dollar per share.

Guarantees of Safety.

In regard to the Sinking Fund, which will constitute fifty per cent. of the par value of the stock, all moneys received as the proceeds of sales of stock on account of the fund will be deposited with some solvent banking institution, which pays interest on deposits invested in interest bearing stocks, bonds and other securities, which can be realized on in thirty days, and in no case will it be lawful for the directors or trustees to invest any moneys of the Sinking Fund in the purchase of stocks, bonds or other securities of any incorporation whatever, which shall have failed to pay interest or dividends for a period of six months preceding any proposed investment pertaining to the Sinking Fund of the Company.

Payment of Interest.

The by-laws further make positive provision for the payment of interest monthly on all stock issued in each class at the rate of twelve per cent. per annum, payable on the 5th day of each month. Another important concession is that any shareholder has the option to take stock in payment for interest at par value in any class that may be preferred. No assessment will be levied until the total stock of the Sinking Fund shall have been sold and paid out as provided by the by-laws. Indeed, so secure is the plan of the Company that in case the whole capital stock of the Company should be sold immediately and the Sinking Fund invested as provided, the proceeds would be sufficient to pay the interest for eight years and a half on the total capital stock. Perhaps no other company in the world has ever been able to present so brilliant a certainty.

Dividends.

Stockholders will not only be sure of their twelve per cent. per annum, but will share in all the surplus profits. The dividends will be paid from the profits and sales of property, and only on shares of consols that have been issued for property valued and entered on the books of the Company. As there can be very little question that the transactions of the Company will be very extensive, and that the profits will rapidly reach something handsome, the dividend prospect should serve as a strong inducement to stock purchasers, for perhaps in no other direction can they be positive of receiving one per cent. a month for money invested, and almost a certainty of large yearly dividends in addition.

A further provision can be made at any time by the Company by setting aside the percentage agreed upon of the sales of the properties of the Company. The main object of the directors is to incorporate a more legitimate and assured method of transacting business in mining and property than has hitherto obtained on this coast. They are therefore resolved to touch nothing but bona fide investments, and to make it a rule to have nothing to do with speculative values. Every possible care will be taken to protect the interests of shareholders, and in order that they may be constantly posted in the transactions of the Company, a monthly statement of affairs will be prepared by the officers, and the books will be at all times open for inspection.

Shares for the first series issued for mining property in Washoe, Storey and Lyon counties, and on the Comstock lode in Nevada, and for account of Sinking Fund, will be ready for delivery to subscribers and purchasers to-morrow, at Greenbaum & Co.'s, 306 Montgomery street. The set selling rate will be one-twenty, and the buying rate one-nineteen. The principal office of the Company is at 306 Montgomery street. T. Phelps is the President, and W. S. Reynolds the Secretary.

CHARLES CLAYTON & CO.,

Commission Merchants

—IN—

GRAIN,

FLOUR

and WOOL,

N. E. COR. FRONT & CLAY STREETS,

SAN FRANCISCO.

CHEESE VAT FOR SALE.

One of the Celebrated Ralf's Cheese Vats,—five hundred gallons. Hoops, etc., new, and in perfect order. At a bargain. Enquire at the Carpet and Furniture Warehouse of

JOHN C. BELL.

ALEX. BUSWELL,

BOOK BINDER, PAPER RULER

AND BLANK BOOK MANUFACTURER.

521 Clay Street, S. F.

Blank Books Bound, Printed and Bound to Order



This is a Sure Cure for Screw Worm, Scab and Foot Rot in Sheep. It also kills Ticks, Lice, and all Parasites that infest Sheep.

Prevents scratching and greatly improves the quality of the wool. One gallon of the Dip properly diluted with water will be sufficient to dip one hundred sheep, so that the cost of dipping is a mere trifle, and sheep owners will find that they are amply repaid by the improved health of their flocks.

This Dip is guaranteed to cure when used according to directions, and to be vastly superior to Corrosive Sublimate, Sulphur, Tobacco, and other remedies which have heretofore been used by farmers.

Circulars sent, post paid, upon application, giving full directions for its use, also certificates of prominent sheep growers who have used large quantities of the Dip, and pronounce it the most effective and reliable known Cure and Preventive of Scab and other kindred diseases in Sheep.

mlr13-hp

JUST ARRIVED FROM THE EAST, Fifty Head of Choice Spanish Merino Ewes, Thoroughbred.

MAY BE SEEN AT SWEENEY'S STOCK YARDS,
Cor. Tenth and Howard Streets.

These Ewes are in lamb, and of the best stock produced in Addison County, Vermont. The owner has also one Ram remarkable for fineness, who is half brother to Big Leg, recently sold by Messrs. Severance & Peet, of this State, for \$1,400. As an assurance that these Sheep are what I claim them to be, I refer parties interested to CHRISTY & WISE, No. 407 Front Street, San Francisco.

F. E. BENTON.

FARM HANDS.

The Grangers' Scandinavian American Employment Office

Has been removed from 6 Liederstorf to 608 Clay street, and Consolidated with the Pacific Coast Employment Office. This office is in constant communication with Grange Headquarters, and is the only one in the city conducted by members of the Order. Our facilities for furnishing MALE and FEMALE help of all kinds are unequalled by any office in the city. Great care taken to select reliable help. Chinese Orders for Servants, in door and out, promptly filled.

In ordering help, be particular in describing work, wages, fare, etc., Real Estate and General Business Agency.

PHILIPS & FLIGGLE.

THE Employment Office of Talbot & Co. has no connection whatever with the Granges.

I. G. GARDNER.

SEEDS. PLANTS.

OF EVERY VARIETY.

Fresh and reliable, such as experience and care only can select.

GRASS AND CLOVER SEEDS, KENTUCKY BLUE GRASS, HUNGARIAN, ORCHARD, ITALIAN RYE, RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL, CHOICE CALIFORNIA ALFALFA, WHITE CLOVER, RED CLOVER, Etc.

Also, RAMIE, JUTE AND TOBACCO SEEDS; together with a fine and complete collection of TREE SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGANTEA, PINUS INSIGNIS, Etc.

For Sale, wholesale or retail, by

B. F. WELLINGTON,

(Successor to E. E. Moore).

425 Washington St., San Francisco.

27v7-1y

SUPPORT HOME INDUSTRY.

WHEATEN STARCH,

MANUFACTURED BY

J. JOHNSTON.

SAN JOSE, - - - - - CALIFORNIA.

This starch is made from the best of wheat, and is used by the laundries and hotels, who pronounce it Superior in Strength and Fine Satin Gloss to any imported starch—one pound being equal to one and a half pounds of Eastern starch.

FOR SALE

In the Riverside, New England and Santa Ana Colonies, in the valley of the Santa Ana river, San Bernardino county, California, twenty thousand (20,000) acres of clean, rich, level, valley land, with an abundance of water for irrigation. There is no better land in the State for the orange and all other semi-tropical fruits, and no finer climate in the world. Inquire of W. T. SAYWARD, 420 Montgomery street, San Francisco; S. O. EVANS, Fort Wayne, Indiana; C. I. HUTCHINSON, 314 California street, San Francisco; L. UPSON, General Agent, Riverside, San Bernardino county, Cal.

EMPLOYMENT.

I want 1,000 agents to canvass for the COMPLETE HERBALIST, and THE GROWING WORLD. I will give such terms and furnish such advertising facilities that no man need make less than \$200 per month and all expenses—no matter whether he ever canvassed before or not. Address Dr. O. PHELPS BROWN, No 21 Grand street, Jersey City, N. J., and full particulars will be sent by return mail.

BRASS MOUNTED MICROSCOPES.

Just arrived, another lot of those Brass Mounted Microscopes. Just the thing to examine fungus in wheat, mites on trees, shrubs, etc. Sent free to any address on receipt of (\$1) one dollar greenbacks, postage stamps or silver.

Address, CHAS. P. KIMBALL,

513 Hayes Street, San Francisco, Cal.

Banking.

Grangers' Bank of California.

(Incorporated April 27th, 1874.)

Offices, 415 California street, San Francisco.

CAPITAL authorized, \$5,000,000, in 50,000 shares of \$100 each. Subscribed, \$2,568,700. (Number of shareholders, 1,571). Paid up, \$481,200.

DIRECTORS—J. V. WEBSTER, President; CALVIN J. CRESSEY, Vice-President; C. S. ARSOTT, J. P. CHESMAN, G. W. COLBY, J. H. HILL, J. LEWELLYN, THOS. MCCONNELL, J. C. MERRYFIELD, A. F. WALCOTT, F. J. WOODWARD.

OFFICERS—Managing Director, CALVIN J. CRESSEY; Cashier, ALEXANDER WATSON; Secretary, FRANK A. CRESSEY.

The bank was opened on the 1st of August, 1874, for the purpose of affording additional banking facilities to the producers of the State, and for the transaction of ordinary banking business.

CURRENT ACCOUNTS are opened and conducted in the usual way, and interest allowed on the minimum monthly balance at the rate of three per cent. per annum.

CERTIFICATES OF DEPOSIT are issued in sums of \$50 and upwards, payable on 30 days' notice of withdrawal, bearing interest at rates varying with the current rate of discount.

TERM DEPOSITS are received in gold, silver or currency, and interest allowed as follows, namely: Three months, six per cent. per annum; six months, seven per cent. per annum; one year, eight per cent. per annum.

COLLECTIONS are made throughout the State on the most favorable terms.

DISCOUNTS—The bank advances on real estate in the different counties, on merchandise and grain in warehouse, etc., with a fair margin, charging a uniform rate of one per cent. per month. Discount days, Tuesday and Friday.

ALEXANDER WATSON, Cashier.

Anglo-Californian Bank.

LIMITED.

Successors to J. Seligman & Co.

London Office,.....No. 3 Angel Court
San Francisco Office,.....No. 412 California street.

Authorized Capital Stock, \$5,000,000,

Subscribed, \$3,000,000. Paid in, \$1,500,000.

Remainder subject to call.

DIRECTORS IN LONDON—Hon. Hugh McCulloch, Ranben D. Sassoon, William F. Schellfield, Isaac Seligman, Julius Sington.

MANAGERS:

F. F. LOW and IGNATZ STEINHART,

SAN FRANCISCO.

The Bank is now prepared to open accounts, receive deposits, make collections, buy and sell Exchange, and issue Letters of Credit available throughout the world, and to loan money on proper securities.

THE CELEBRATED

H. H. H.

HORSE MEDICINE

IS STILL AHEAD OF ALL OTHERS.

The Wholesale Druggists of San Francisco, give evidence of its appreciation throughout the State, by and rapidly increasing orders. We pledge it a cure for SPAVINS, WIND GALLS,

SWEENEY, SCRATCHES,

LAME AND STIFF JOINTS,

CALLONS, LUMPS,

AND ALL BLEMISHES,

SPRAINS OR BRUISES.

It is a household blessing and no family should be without a bottle in the house. For sale everywhere.

WILLIAMS & MOORE, Prop's.,

25v8-6m Stockton, Cal.

FARMERS' UNION.

SUCCESSOR TO A. PFISTER & Co.,

Cor. Second and Santa Clara Sts., San Jose.

CAPITAL, - - - - - \$100,000.

WM. ERKSON, - - - - - PRESIDENT
H. E. HILLS, - - - - - MANAGER

Directors—Wm. Erkson, L. F. Chipman, Horace Little J. P. Dudley, David Campbell, James Singleton, Thomas E. Snell, O. T. Settle, E. A. Braley.

Will do a General Mercantile Business, also receive Deposits, on which interest will be allowed as may be agreed upon, and make Loans upon approved security.

PETERSEN'S

PATENT BEEHIVE.

For Sale at Geo. M. Wetherbee's Sawing, Planing and Turning Establishment, and Bee Hive Manufactory, 211 and 213 Mission street, San Francisco. Send for free illustrated circular, with "Treatise on Bees," to

P. O. PETERSEN,

Oakland Post Office.

LOCKE & MONTAGUE,

IMPORTERS OF

Stoves, Ranges,

Tin Plate, Sheet Iron, Iron Pipe,

House Furnishing Hardware,

Plain Japanned,

Planished and Stamped

TIN WARE,

112 and 114 Battery Street.

SAN FRANCISCO.

12p

Nurserymen.

Established 1853.

Stocks for Nurserymen.

Plum Seedlings, Miroholan, the best French stock, does not sucker..... \$50 per 1000
 Apple Seedlings..... 10 per 1000
 Pear Seedlings..... 10 per 1000
 Cherry Seedlings, Mazzard..... 12 per 1000
 Cherry Seedlings, Mahaleb..... 20 per 1000
 Walnuts, English, 4 to 6 feet..... 15 per 100
 Cork Elm, best Elm, 4 to 6 feet..... 15 per 100
 Blue Gum or Eucalyptus, in variety..... 5 to 10 per 100
 Magnolia Grandiflora.....
 Magnolia Acuminata.....
 Magnolia Tripetala.....
 Golden Arborvitae.....
 Crataegus Arborescens.....
 Swedish Juniper.....
 Irish Juniper.....
 Heath-leaved Arborvitae.....
 Heath, Mediterranean.....
 Laurustinus, 6 to 12 in.....
 Making the growth of Oranges and Lemons a specialty, I have imported from all sources the best known varieties, and now offer five thousand Grafted Trees properly worked and twice transplanted at \$18 per dozen. Grafted oranges by the 100 or 1,000 at prices on application. The amateur in want of large PALMS, large AURICARIAS, large CAMELIAS and large TREE FERNS, a good stock on hand; also the usual large stock of fruit and ornamental trees.

BERNARD S. FOX,

San Jose, Cal.

THOS. MEHERIN, Agent, 516 Battery Street, San Francisco.

1852.

1875

ESTABLISHED IN 1852.

THE STOCKTON NURSERY

I have for sale for the ensuing season a Large and Well Grown Stock of All Varieties of

FRUIT TREES,
 SHADE,
 ORNAMENTAL
 and
 EVERGREEN TREES.

GREENHOUSE PLANTS, AUSTRALIAN GUMS, SHRUBS, ROSES, BULBS, PALMS.

Send for Catalogue.

W. B. WEST, Stockton, Cal.

KING'S NURSERY,

Twenty-fifth St., bet. Telegraph & Broadway
OAKLAND, CAL.

Fruit, Shade and Evergreen Trees, Shrubs, Roses, Etc. Persons laying out new grounds would do well to call and examine our stock before purchasing elsewhere. A large stock of EUCALYPTUS, including BLUE GUM PLUMS and CYPRESS from six inches to twelve feet high. Acacias in Variety; Young Stock for Nurserymen; Pines and Cypress; Three Thousand Magnolia Grandiflora from six inches to five feet high; Camellia Japonica; Gardenia Cape Jessamine; Arbutus in Variety, at Lowest Rates. Orders attended to.

Address, M. KING, Nurseryman, Oakland, Cal.

Thos. A. Garey's

Semi-Tropical Nurseries.

LOS ANGELOS, CAL.

Forty varieties of the Citrus family of semi-tropical trees, including many rare and beautiful, as well as useful and profitable kinds.

Grafted and Budded Orange Trees a specialty. Trees packed to arrive in good order. Priced Catalogue sent free. Address me P. O. Box, 523, Los Angeles city, Cal.

THOS. A. GAREY.

PEPPER'S NURSERIES.

(Established in 1858.) PETALUMA, CAL.
Green Houses and Tree Depot corner Washington and Liberty streets.

4 Green Houses. 3,000 feet of Glass. Fruit Trees a Specialty.

We offer for sale at lowest market rates a general assortment of Fruit and Shade trees, small Fruits, Vines etc. Evergreen trees and Shrubs in great variety. Green House, Conservatory and Bedding Plants, Roses, etc. We are now ready, Nov. 1st, to fill orders for trees and plants. Catalogue and price list furnished on application.

Address, W. H. & G. B. PEPPER, 1978-11 Petaluma, Sonoma Co., Cal.

SUPERIOR FRUIT TREES

TRUE TO NAME.

A fine collection of Evergreen and Deciduous Trees. Australian Gum Trees in variety, by the hundred or thousand. Monterey Cypress in quantities and sizes to suit all. Orange and Lemon Trees at reduced prices. A general variety of Nursery stock.

Also, Rhubarb and Asparagus roots.

T. CORLEY, 18729-11 315 Washington Street, S. F.

FOR FRUIT, FOR ORNAMENT
TREES
 FOR PLEASURE, FOR PROFIT,
 WHOLESALE AND RETAIL.

Pears, Apples, Cherries, Peaches
Plums, Quinces.

Small Fruits.—Grapes, Currants, Raspberries, Blackberries, Strawberries, Gooseberries.
 Ornamental.—Weeping and Standard Trees.
 Evergreens.—Common and New and Rare.
 Shrubs.—Variegated-leaved and Flowering.
 Roses.—Moss, Tea, Climbing and Perpetual.
 Clematis Jackmanni is perpetual, hardy, lives easy, grows fast, and flowers the first year.
 12 sorts Perpetual White Clematis and fifty new varieties of many shades of color. Strong plants safely sent by mail.
 Good Plants sent by mail, post-paid, as follows:
 6 Choice Roses for \$1.00 | 13 Choice Roses for \$2.00
 6 Variegated-leaved and Flowering Shrubs for \$1.00
 13 Variegated-leaved and Flowering Shrubs for \$2.00
 500 Acres of Nursery. T. C. MAXWELL & BROS., Geneva, N. Y.

PEACHES, APRICOTS AND PLUMS

are specialties at the Vacaville Nursery, Solano Co., Cal. Alexander's Early, Thurber and Peento in bud, 50 cents each. Beatrice, Louise, Rivers' Early, Lord Palmerston Lady Palmerston, Prince of Wales, Princess of Wales, Piquet's Late, Lady Parham, Italian Dwarf, Golden Dwarf, Bloodgood and many other varieties of new Peaches in bud, at 25 cents each; Trees of Alexander's Early, \$1 each. Beatrice, Plowden, Freemason and a general assortment of the leading varieties, 25 cents each; Apricots, Plums, Apples, Pears, Cherries, Almonds, Figs, Olives, Pomegranates and including most of the leading varieties of fruit for sale at low prices. D. E. Hough, Vacaville, Solano Co., Cal.

Agricultural Articles.

KIMBALL CAR, CARRIAGE

—AND—

AGRICULTURAL IMPLEMENT

MANUFACTURING CO.,

Cor. Bryant and Fourth Sts., San Francisco

The CALIFORNIA TUBULAR IRON AND WOOD FRAME HARROW—two, four and six-horse Iron Harrows, \$60, \$70 and \$75. Wood Frame Harrow, \$10 less on each size than the Iron.

The Harrow has an easy seat for the Driver. The middle section rests on three wheels with wings hinged on each side.
 By use of Levers the Driver in his seat can raise or lower the Harrow, regulating at will the depth of the teeth in the soil, and in the same manner fold or raise the wings from the ground so as to drive from the road to the field, saving the use of a wagon.

Our CALIFORNIA SCRAPER is also made for the ease of the Driver, enabling one person to ride, manage the team and do the work.

Is adapted for leveling and preparing the surface of the soil for irrigation. And for making roads, removing dirt from ditches, cleaning barn yards, sheep corals, etc.

The IMPROVED EAGLE HAY PRESS—Best in use on this Coast. Cheap, Economical, Powerful, and easily repaired.

Will press bales weighing from 250 to 325 pounds, using less rope than any other press.

Three men with a good team of horses will bale from 10 to 15 tons per day.

Adapted for haling wool, hides, cotton, rags or moss. Price, \$250. Weight of press, 2,500 pounds. Please send for circulars.

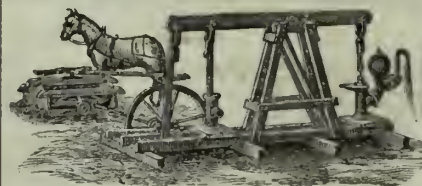
VINE AND FRUIT GROWERS,

TO RAISE LARGE CROPS

YOU MUST IRRIGATE.

To irrigate successfully, you must have the power that does not give out when the wind fails.

Laufkotter Bros. & Churohman's Horse-Power,



(PATENTED FEBRUARY 17th, 1872)
 Never fails to supply more water than four or five Windmills, even supposing you had all the wind you want. It is also suitable for running light machinery, such as Barley Cracker, Corn Shellers, Fanning Mills, Grain Separators, or for Sawing Wood. They are never failing, cannot get out of order, easily worked, substantial, and always give satisfaction wherever they have been used. One horse can easily work two 8-inch pumps, with a continuous flow of water. Force Pumps, from 3,000 to 10,000 gallons per hour. WINDMILLS of all kinds manufactured to order. Walls Bored, Windmills and Horse-Powers set in any part of the State, and repairing of all kinds done.
 Manufactured and for sale by

LAUFKOTTER BROS.,

Cor. J and 10th Sts., Sacramento.

Farmers and Threshers

WISHING TO HAVE

Straw Burning Engines

For next season must engage them soon, as most of those now building are already sold. Threshing Engines for Repairs should be sent in now. A number of Second-hand Engines—taken in exchange for "Straw Burners"—for sale cheap. For particulars and prices, address: H. W. RICE, 2378-3m Haywood, Alameda County.

ENRIGHT'S

Portable Strawburning Engines

Burns either Straw, Wood or Coal, Manufactured and sold by JOSEPH ENRIGHT, 187-13-3m

JOSE.

CREGO & BOWLEY,

Importers and Manufacturers

CARRIAGES and WAGONS,

No. 9 Merchant's Exchange,

CALIFORNIA STREET.....SAN FRANCISCO

Keep constantly on hand top and open Buggies, top and open Rockaways, Jump-seat Buggies, Track and Road Snikies, Skeleton Wagons, Basket Phaetons of the very latest styles and finest workmanship.
 We would call particular attention to our fine stock of Light Road and Trotting Wagons, made to order by the following celebrated makers:
 Charles S. Coffrey, Camden, New Jersey;
 Heilfeld & Jackson, Rahway, New Jersey;
 Gregg & Bow, Wilmington, Delaware;
 And the first-class makers, which we are prepared to sell on the most reasonable terms.
 Also, a large assortment of single and double Harness, of the most celebrated makers:
 C. Graham, New York; J. R. Hill, Concord; Pittkin & Thomas, Philadelphia.
 Also, a full assortment of Dress and Light Blankets, Fur and Lap Robes, Whips, Halters, Surchingies, etc., at wholesale and retail.

CREGO & BOWLEY,

No. 9 Merchants' Exchange, California street, 2475-3m San Francisco.

MATTESON & WILLIAMSON'S

AMERICAN CHIEF



GANG PLOW.

Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

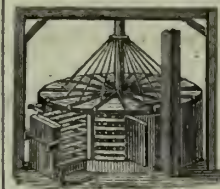
1472-3m

MATTESON & WILLIAMSON,

Stockton, Cal.

Plummer's California Fruit Drier.

PATENTED DECEMBER 29th, 1874.



This is the Cheapest and Most Economical, Largest Capacity, and Most Speedy DRIER, and gives the fruit a better flavor than any other machine ever invented. 1st—It only requires a shed to work under; 2d—has hoiler, engine, and steam-pump for irrigating or other purposes, in connection with the Drier or separately; 3d—the cost is one-half less than any other of the same capacity, and there is no danger of burning the fruit. A sample machine is in full operation at our factory, No. 31 Beale St. Address: SPAULDING & BRO., San Francisco, Cal.

Send for Circulars.

THE GRANGER ENGINE.

Farmers' and Threshers' attention is called to this splendid Engine. Especially adapted to burning straw, wood or coal. This is the only Engine in the market that is designed to run Derrick Forks by steam. The saving of fuel to run the Engine, and the men and horses dispensed with in running the Derrick Forks, will amount to the Price of the Engine in one season. Manufactured and sold by

J. L. HEALD, Vallejo.

LANE & BODLEY,
John & Water Sts., Cincinnati.
Manufacturers of the Best

FARM ENGINE.

Monnted and ready for use. Send for our illustrated catalogue.



Massillon Harvester

Buy the Best.

TWO men bind Ten Acres daily. Binders can B.T. or STAND. Address, EDWIN BAYLIS, Massillon, O.

PUMPS SLUTHOUR PUMPS

Are sold 50 per cent. under any other in the market, considering the amount of water obtained for the power applied. They have now been fully tested for IRRIGATION, and entire satisfaction is guaranteed. Call and see them, or send for Circulars.

J. M. KEELER & CO., Agents, 306 California Street, San Francisco.

Allen's Planet Jr. Silver Medal

HAND DRILLS and WHEEL HOES. These new styles. They "now like a charm," and are better, easier, and six times faster than the hand hoe. S. L. ALLEN & CO., Mfrs. 119 S. 4th St., Phila., Pa. Circulars free. A LIVE AGENT WANTED in every town.

Commission Merchants.

H. K. CUMMINGS.
1858.H. H. BALSTON.
1876.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission House,

ESTABLISHED 1858.

No. 424 Battery street, southeast corner of Washington, San Francisco.

Our business being exclusively Commission, we have interests that will conflict with those of the producer. 4723-15

MOODY & FARISH,

Wool Commission Merchants,

No. 210 Davis Street, S. F.

Eureka Glycerine and Carbolic Sheep Dip; Sheep Shears; Wool Sacks and Twine constantly on hand at low prices.

Davis & Sutton, Commission Merchants, For California Fruits; also for the sale of Butter, Eggs, Cheese, Hops, Green and Dried Fruits, etc., 75 Warren street, New York. Refer to Anthony Halsey, Cashier, Tradesmen's National Bank, N. Y.; Ellwanger & Barry, Rochester, N. Y.; C. W. Reed, Sacramento, Cal.; A. Lusk & Co., Pacific Fruit Market, San Francisco, Cal.

THE ALDEN

FRUIT PRESERVING COMPANY,

OF CALIFORNIA.

OFFICE, 428 MONTGOMERY ST., S. F.

Our improved apparatus will do one-third more work than that erected last season, while our prices have been materially reduced. A portion of the purchase money may be paid in the products of the Alden factories. We guarantee against infringements. The Alden is the oldest, the best and the cheapest process known for preserving fruits, vegetables, meats, etc.

It would be unwise to purchase the new and untried dryers before they have demonstrated their superiority by at least one year's regular work. Send for our circulars.

J. Y. WILSON. WM. FAULL W. L. MERRY

WILSON, MERRY & CO.,

Provision Packers

And Dealers in

SALTED AND SMOKED MEATS,
Lard, Etc.

PROP'S BLACK POINT PACKING HOUSE.

We respectfully call the attention of Farmers and Stock Raisers to the fact that we are always prepared to purchase hogs, cattle and sheep at full market prices, for Cash, and shall be glad to answer promptly any inquiries addressed to us on the condition of the Market.

Office No. 223 Sacramento St., Near Front, San Francisco.

Union Box Factory,

GEO. W. SWAN & CO.,

115 and 116 Spear St., bet. Mission & Howard SAN FRANCISCO.

Apple, Pear, Plum, Peach, Cherry, Grape, Orange, Lime and Wine Cases.

Tomato, Potato, Fig and Raisin Boxes.

Strawberry, Raspberry and Blackberry Chests and Drawers, and Baskets for all kinds of Berries.

Peach and Picking Baskets, Butter Chests and Boxes, Cheese Boxes, Square and Round Egg Carriers.

Drums for Figs, Cherries, Raisins, and for other Dried Fruits.

Free Packages—Boxes not to be returned—A good article, costing less than Sawed Boxes.

Lard Caddies, Coffee and Fruit Caddies.

Turkey and Chicken Coops, Bee-Hives, Etc.

Packing Boxes for Dry-Goods, Cigars, Candles, Canned Fruits, Honey, Macaroni, Crackers, Sugar, Soap, Boots, Etc.

In fact, every style of Boxes manufactured in the Union, and turned out in the Best Style at Favorable Prices. Orders from the country well attended to

5,500 ACRES

Of the best portion of the old NOMELOCKEE RESERVATION, in Tehama County, for sale very low; only five dollars per acre; one-third down, one-third in one year and one-third in two years, with interest at one per cent. per month. Will be sold all together or in two parcels. This is one of the finest tracts of grazing land in Northern California; is abundantly watered by numerous perpetual springs and has two miles of the Elder Creek, a clear mountain stream. Its grass never fails from drought, and is of the best quality for sheep and has no clover hurt. 800 acres of level plow land; timber for posts, fuel, etc. Enquire of ALLEN WILCOX, Los Angeles, or F. B. WASHINGTON on the tract, twenty miles west of Tehama.

BAKER & HAMILTON

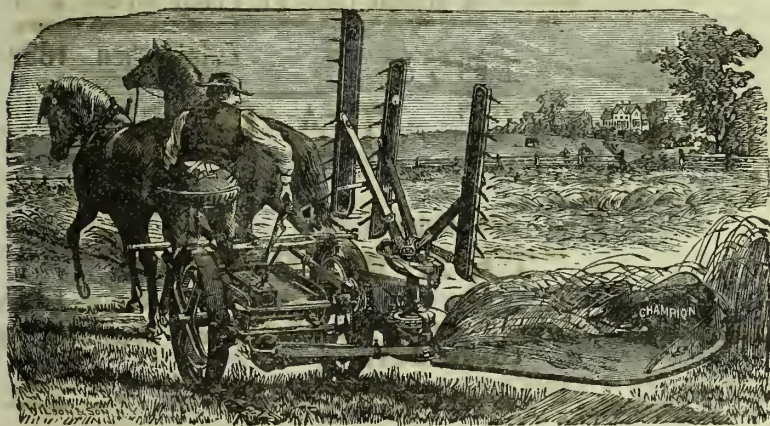
Nos. 7 to 19 Front Street, San Francisco.

Nos. 9 to 15 J Street, Sacramento.

Haines' Genuine
Double Gear Headers
and The Sweepstake
Single Gear Header.

After years of thorough trial in the field, we last season concluded to adopt the Single Gear Header, and have been to great expense in having it improved from patterns furnished us by the best mechanical and practical farmers in the State. The Sweepstake Single Gear Header, with Center Pitman, for 1875, is the most Complete and Perfect Header that has ever been manufactured. The Drive Wheels are strengthened and made higher than the wheels on any other Header in the market; consequently they run lighter, by fully one horse. The Draper is extra strong, and completely protected from wear by the very best Leather Belting. The Guide Wheel and Boxes are greatly improved, making the steering much easier for the driver. These improvements will be appreciated by all Header men; the main frame is braced and trussed with 1/2 inch round iron, in such a manner that it is impossible for it to warp, or spring out of shape or true. The Finger Bar is sloped downward and backward to the Draper, so that it is impossible for the short heads of grain to shake off the Finger Bar to the ground. The Pole is coupled to the main frame in an improved manner, by means of two strong pieces of wrought iron and two castings, with holes in them in such positions that the back of the main frame can be raised or lowered, or the Finger Bar be raised or lowered, just as is desirable. The Reel is braced with 5-16 inch iron rods, running from the spokes of the center wheels, always holding the Reel firm, and preventing it springing end-ways and breaking the slats, or pulling them off the spokes by catching on the arms that support the Reel. The spout is attached in such a manner that it can readily be taken off or put on without all the trouble and labor that was necessary with the old style of Spout.

SWEEPSTAKE SINGLE GEAR HEADER.

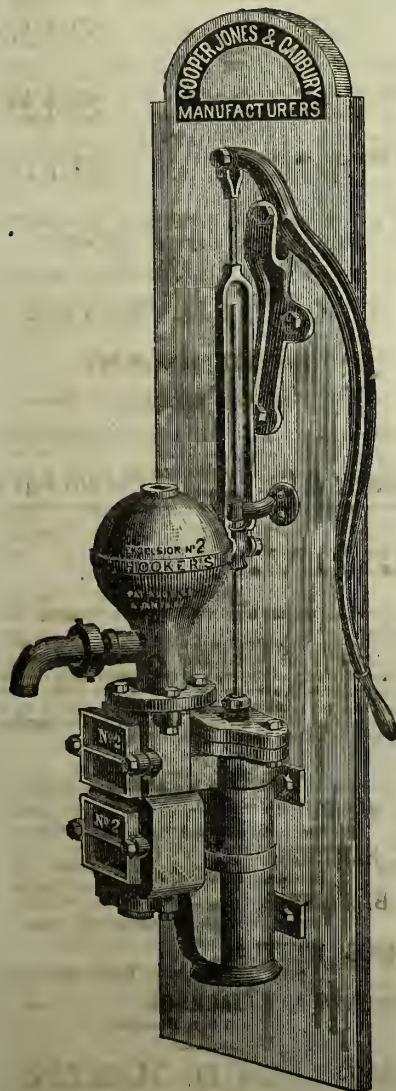


"CHAMPION" SELF-RAKER IN DOWN OR SHORT GRAIN.

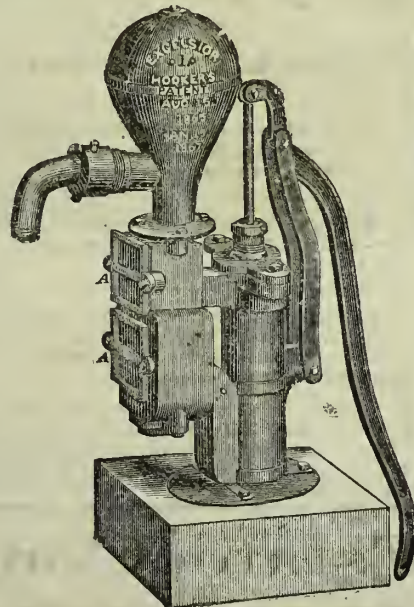
Sole Agents for Ames' Celebrated
Straw and Wood-Burning Engines.

THE "EXCELSIOR" FARMERS' PUMP.

After Eight Years' use, proving itself the Best Pump on this Coast, and consequently the CHEAPEST.



MOUNTED.



BASE.

We can advise all parties to buy the Pump to be worked by hand, windmill or horse power. All sizes for sale.

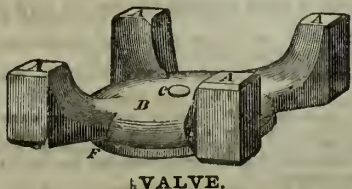
REMEMBER,

Every Pump is tested to 125 lbs. hydraulic pressure per square inch.

Will pump water 250 feet high.

So simple every farmer can keep it in order.

EVERY PUMP WARRANTED.



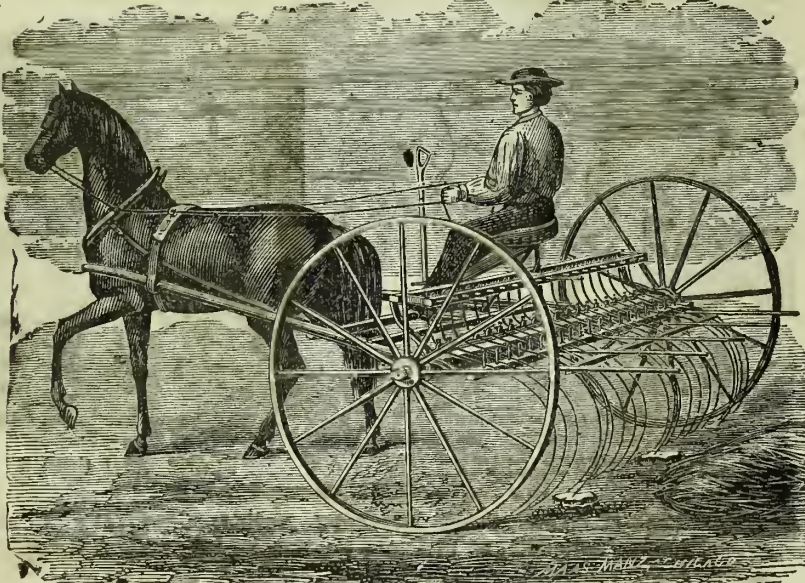
VALVE.

BRITTAN, HOLBROOK & CO.,

111 & 113 California St., S. F., (and also Sacramento,) Gen. Ag'ts

Send for circular,
mar27-2am

HOLLINGSWORTH SULKY RAKE.
It has Adjustable Compound Spring Teeth, 20 in each of the main frame, and 10 in each of the side frame. The teeth of the tooth plays upon a spiral spring, thus avoiding any strain upon the tooth when caught upon a stone or other obstruction. The Teeth are of Spring Steel, tempered in oil. Every inch of steel serves as a spring, and the rake is never liable to break. It is a feature which no other Rake possesses. It is substantially timbered and ironed and finished in the best manner possible. At all of the field trials they have always come out victorious.



HOLLINGSWORTH SULKY RAKE.

CALIFORNIA WINE COOPERAGE AND MILL CO.

30, 32 & 34 Spear St.
M. FULDA & SONS
Proprietors.

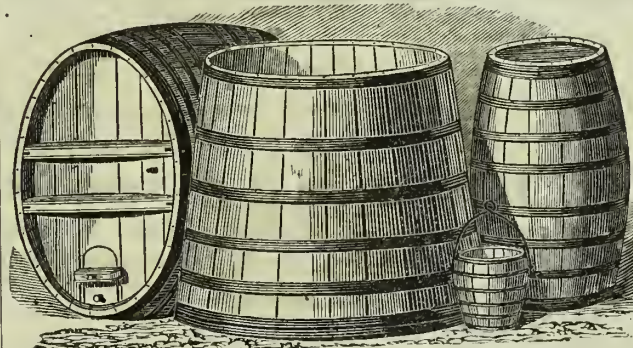
Manufacturers of

WATER TANKS, SHIP
TANKS, MINING
WORK,

WINE, BEER AND LIQUOR
CASKS, TANKS, ETC.

Cooperage and Tanks, Steamed
and Dried Before or After
Manufacture at Reasonable Rates.

Sawing, Planing, etc.
at Short Notice. cowbp



BOWEN'S PREMIUM YEAST POWDER.

Bowen's Premium Yeast Powder.

Bowen's Premium Yeast Powder.

Bowen's Premium Yeast Powder.

Bowen's Premium Yeast Powder.

Best in the World! Every Can Guaranteed!!

For Sale in Every Village, Town and City on the Pacific Coast.

Ask Your Grocer for It.

Manuf'd by BOWEN BROS., 432 Pine St., S. F. and 11th & 12th Sts., Oakland

THE CALIFORNIA

STANDARD BURLAP SACK COMPANY

OF SAN FRANCISCO,

Now offer for sale their GRAIN BAGS, 22x36 and 20x36, sewed by Machinery with the best of Flax Twine, warranted not to rip in filling, the stitch being the same as the Dundee hand-sewed Sack. The sewing has been examined by good judges, and pronounced superior to any other.

SAMPLES SENT ON APPLICATION AT THE

Factory, No. 36 Clay Street.

A. J. GOVE, Superintendent.

For Sale in Quantities to Suit by

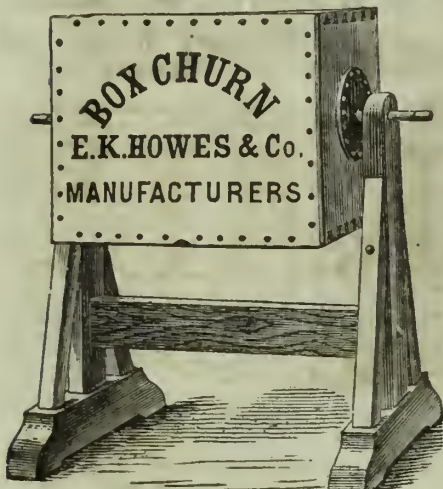
I. FRIEDLANDER,

Cor. California and Battery Sts.,

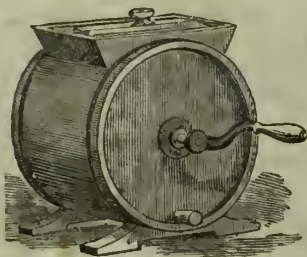
SAN FRANCISCO, CAL.

E. K. HOWES & CO.,

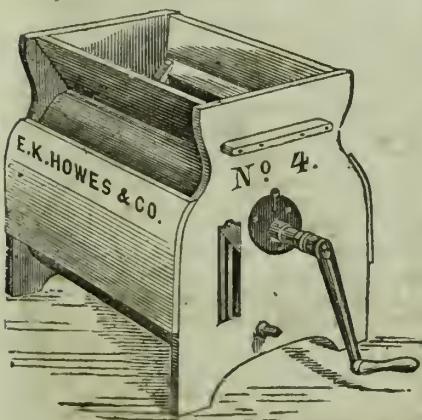
NOS. 118, 120 and 122 FRONT ST., SAN FRANCISCO.



BOX CHURN.



CYLINDER CHURN AND DASHER



THERMOMETER CHURN.



BLANCHARD CHURN.

SOLE MANUFACTURERS ON THIS COAST OF

All Descriptions of Churns, Butter Workers & Moulds, Butter Tubs. (35, 50 & 60 Pounds), Butter Kegs—Plain and Gal Hoops—Wholesale & Retail.

Send for Price List and Illustrated Catalogue. Single Churns sent by Express, C. O. D., if desired. 9v9-cow-3m-16p

1874. GUIDE AND CATALOGUE 1875.
FREE.

To persons contemplating purchasing I will send my ILLUSTRATED, DESCRIPTIVE CATALOGUE and GUIDE to the VEGETABLE and FLOWER GARDEN WITHOUT CHARGE. It contains the most extensive and valuable list of



Flowering Bulbs, Roots and Plants, Semi-Tropical Trees, Ornamental Shrubs, Fruit and Shade Trees, etc., ever offered in this market. It tells how to successfully grow the Australian Blue Gum, the Monterey Cypress, Pine, etc., and the proper method of Cultivating Tobacco on this Coast.

My stock of Seeds is in part my own raising and in part direct importations from the best European and Eastern growers, and is unsurpassed in all respects by that offered by any other establishment. 100,000 Australian Blue Gums and Monterey Cypress in boxes at from \$30 to \$50 per 1,000, raised at my own Nursery at San Rafael.

R. J. TRUMBULL,
Grower, Importer, Wholesale and Retail Dealer in Seeds, Shrubs, Trees, etc.
20v8-6m-16p 427 Sansome street, S. F.

Improve Your Poultry,

IT COSTS NO MORE TO KEEP GOOD FOWLS THAN POOR ONES!

OAKLAND POULTRY YARDS,

Cor. 16th and Castro streets, Oakland, Cal.

Eggs for Hatching

GUARANTEED FRESH.

True to Name.

And to carry safely to any part of the country.



BRAHMAS, LIGHT AND DARK LEGHORNS, WHITE AND BROWN HOUDANS, COCHINS, BUFF, BLACK AND PARTRIDGE POLISH, GOLD AND SILVER, HAMBURG GOLD-EN, SILVER AND BLACK GAMES, AYLESBURY AND ROUSE DUCKS, DORCHINGS AND BANTAMS.

BRONZE TURKEYS, the Largest in America.

Send for Circular to

GEO. B. BAYLEY,

Box 659, San Francisco.

HAY and WOOL
PRESSES.

The Fastest, Strongest, and Best Portable Hay Press in the World is the

PRICE, or PETALUMA PRESS.

400 in Use.

Bales from 12 to 20 tons per day.

Price, \$450, Cash.

The Most Simple, Compact and Effective Cheap Press Known is the

IMPROVED ECLIPSE,

Eight feet six inches high. Weighs 2,000 pounds. Bales from 10 to 18 tons per day. Price, \$300, Cash.

The above machines are delivered at the Factory, San Leandro, Cal.

For further information or for illustrated circulars that answer all questions relating to the above Presses

Address Price Press Co.,

16p

Office with BAKER & HAMILTON, 17. Front Street, S. F.

O. LAWTON & CO.

1875.

Established 1852.

FRUIT JARS.

"THE GEM."

Glass Cover, with Metal Ring.

"THE MASON."

Porcelain Lined, Screw Cover.

Fruit Comes in Contact with no Metal or Rubber in these Jars.

In offering "The Gem" and "The Mason" Jars to the Pacific Coast Dealers, it is with the full assurance that they are the best in market, and that the most desirable qualities of all other Jars will be found combined in these two. Send for Circulars and Price List.

O. LAWTON & CO.,

Nos. 609 & 611 Market St.,

my2caw

SAN FRANCISCO.

San Francisco Land Agency,

E. L. SMITH & CO., Managers.

A Medium for the Sale of Every Description of Real Estate.

Office, No. 331 Kearny Street.

WANTED—DESIRABLE LANDS AND FARMS in every county of the Pacific Coast, at SAN FRANCISCO LAND AGENCY, No. 331 Kearny street.

WANTED—SHEEP AND SHEEP RANGES For Sale at SAN FRANCISCO LAND AGENCY, No. 331 Kearny street.

EMIGRANTS INTENDING TO SETTLE IN Oregon or Washington Territory furnished with full information, free of charge, at SAN FRANCISCO LAND AGENCY, No. 331 Kearny street.

NOT WANTED—WORTHLESS LANDS, BAD titles or exaggerated descriptions, at SAN FRANCISCO LAND AGENCY, No. 331 Kearny street. E. L. SMITH & CO., Managers.

NEW CROP OF

BLUE GUM SEED.

GRASS AND CLOVER SEEDS.

FLOWER AND VEGETABLE SEEDS.

TREE AND FRUIT SEEDS.

OF EVERY DESIRABLE VARIETY AND OF THE BEST QUALITY; OFFERED AT WHOLE-SALE OR RETAIL, BY

GEO. F. SILVESTER,

SEEDSMAN,

No. 317 Washington Street,

24v8-tf

SAN FRANCISCO

Dewey & Co. { 224 } Patent Agt's.

SANSONE ST.

Calistoga Real Estate Company.

Calistoga, with a population of about 800 persons, is a village watering place at the head of the valley of Napa, in California. It is four hours' travel north of San Francisco by steamboat and rail.

Its shipping port is Vallejo, on the bay of San Francisco, forty miles distant by rail. It lies at the head of the most charming valley in the State.

THE BEAUTIES OF NAPA.

In traversing this thirty-seven miles of fertile dale, the eye never wearies. If one ascends the sides of the leafy mountains that bound the valley on either side, whether looking up the valley or down, and from whatever point of view, the scene is one of ravishing beauty.

Mounting the summit of St. Helena, which towers over all, far to the east the snowy Nevada bound the view; and to the west spreads the Pacific ocean, with its winged ships and its blue horizon. To the north are the vast forests of Mendocino, its stately trees, turned to shrubbery and Clear Lake in its pride of expense dwindled to a mill dam.

THE WARM SPRINGS.

From the beauties of Calistoga we turn to its other attractions. The estate covers 2,000 acres of fertile land. Its warm springs are crowded with invalids, who flock to its healing waters, and who return cured of their rheumatism, their dyspepsia, their torpid livers and their tender kidneys. The medicinal elements of the hot springs are principally iron, magnesia and sulphur. In this climate, the season of watering places is prolonged.

THE SURROUNDINGS.

By consulting a map it will be apparent that Calis-

toga is destined to become a commercial town of importance. It is the center to which converge innumerable highways leading to many of the richest cultivated valleys of California.

INDUSTRIAL ENTERPRISES.

A new industry is now being introduced at the head of the valley of Napa, which will give easy employment to all the boys and girls, and contingently it will support other new industries. It is but the beginning of many others. Three miles below Calistoga is selected as the site of a large factory for saving and canning fruits and vegetables, test now go to waste, and encouraging the production of more. In no part of California can these healthful elements of human food be cultivated more cheaply or more abundantly. Considering the depth of its rich soil, its prolonged season, and the extraordinary vegetable growth in this country, one acre may be considered equal to three elsewhere this industry is carried on in the Atlantic States. If irrigation be wanted, artesian water may surely be found all along the valley, for it is backed by mountain ranges full of living waters.

MINES:
GOLD AND SILVER AND QUICKSILVER.

Calistoga is the center also of a great mountain range rich in mines of cinnabar and silver. Already its furnaces are producing mercury, and the product is increasing yearly. A number of valuable mines are now being profitably developed in the region around the base of Mt. St. Helena, at Pine Flat, on the Great Geyser road, and near Sillies' Mill, on the Clear Lake road. All of these are from ten to fifteen miles beyond Calistoga, to which point their products come, and from

which their supplies are carried. The deposits of cinnabar occur in well defined veins, and as they are now being scientifically developed they bid fair to rival in productiveness the celebrated mines of New Almaden.

CALISTOGA REAL ESTATE CO.

The splendid property above described, containing 2,082 acres, divided into town lots, suburban lots, country seats, hotel property and farm tracts, has been bought by the above named company, and is now offered for sale to the public.

The Capital Stock of the Company is
\$1,000,000,
Divided into 20,000 Shares of \$50 Each.The sale of a certain number of shares has been authorized by the Board at the rate of
Twenty-five Cents on the Dollar, Making
12.50 Per Share.

By an arrangement between the former owner and the present company, no portion of this land or the proceeds of its sale, is consumed by expenses or in even the smallest degree diverted from the use and benefit of the stockholder.

Whoever buys Stock in the Company receives his pro rata share of this property, with its Crops and Rents in the meantime, without one cent of deduction for expenses of any kind, even including Taxes. And

this, too, no matter how valuable the property shall become.

Unlike the homestead schemes which have heretofore attracted our people, this plan gives homes and interests in and adjoining a town already built; where trade and growth are already assured, and where daily increase gives promise of greatly added values to all its property. It is a division of this ripened heritage that is now offered to the subscribers.

TRUSTEES:

E. W. BURR,
President Savings and Loan Society.C. HARTSON,
President Bank of Napa.J. B. FRISBIE,
President Vallejo Commercial Bank.JULIUS WETZLAR,
Pres. Capital Savings Bank, SacramentoCOLONEL J. P. JACKSON,
San Francisco.

WILLIAM H. MARTIN,

GENERAL AGENT,

No. 1 Webb Street, Cor. California, S. F.

PACIFIC RURAL PRESS

Volume IX.]

SAN FRANCISCO, SATURDAY, MAY 29, 1875.

[Number 22

The Sweepstake Single Gear Header.

At this season our farmers are about purchasing their harvesting machinery, and would doubtless like to receive as much information as possible in our columns in regard to the best machines offered for sale. The headers, (or "clippers" as some call them,) are now used to the greatest extent in most parts of California. Among the most popular of first-class headers is the one above named and which we herewith illustrate. So far as we are informed it stands unrivaled. It is represented by Messrs. Baker & Hamilton, the largest firm on this coast in their line of trade, having a store in Sacramento for supplies for the northern part of the State, while their store in this city sends supplies south and north.

At their store in this city we were recently shown the Sweepstake header by Mr. Baptist Johnston, whose limber tongue, if allowed to swing, will convince most any person that he knows what he is talking about.

He informed us that they had adopted the single gear header last year after a thorough trial for the previous three years, so that we are not describing an untried machine or one which is an experiment. The drive wheels are wide and very strongly made. The draper is thirty-six inches wide and protected from wear by leather belts running the entire length, and also small pieces of belt between each draper stick. The spout is hinged to the main frame in a new manner, and two large rollers lessen the friction on the draper while it is traveling up the spout. The belts are all tightened by patent tighteners, so that a belt or draper can be tightened without the annoyance of unlacing. We should think this a very important item for farmers, as we have known a whole crew of men to stop while the header driver took up a belt by lacing.

Another fault of the old style of headers was the finger beam. The header would cut the heads, but they would slip off the finger bar and thus be lost. We notice that the Sweepstake finger bar slopes down and back, making it impossible for any cut grain to fall off; after having once fallen on the bar it must go on the draper and then into the wagon. The pole is coupled to the frame in a novel and unique manner. It connects with the frame by two large wrought pieces and two cast plates, and the frame is raised or lowered on the level and not on an incline as formerly.

The main frame is braced and trussed with three-fourth inch round iron rods in such a manner as makes it impossible for the frame to warp or twist, and should it get out of true it can be screwed into square in a few minutes with a wrench. The reel is braced with five-sixteenths iron rods running from the center spokes of the reel to the hubs on each end of the reel, making it light, strong, and exceedingly stiff. It will draw in the tallest mustard, stoutest grain or the lightest crop. The bracing always holds the reel firm, prevents it springing end-ways and breaking the slats or pulling them off the spokes by catching them in the finger bar while the header is in motion. The old style reel continually jumped and caught the guards and broke the slats off.

These headers were manufactured at the factory of the original Haines headers, and have all the latest style gearings, belts, etc. Messrs. Baker & Hamilton are shipping to the various parts of the coast, indicating that the crops were plentiful where such large headers can be used. They inform us that they sell ten, twelve and fifteen foot machines, and that they make at their factory in San Leandro, ten, twelve, fourteen and sixteen feet, with drapers thirty-six and forty inches wide.

These large headers are used extensively in

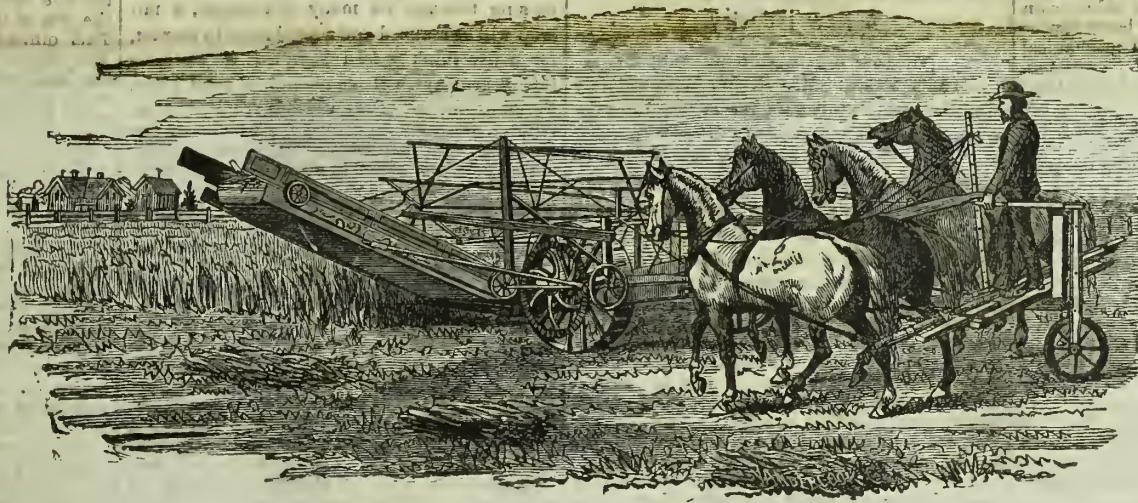
the San Joaquin plains and are constructed with wrought iron driving wheels, made upon a new plan. The spokes are flat bar iron and the hub is in sections, and as the hub is screwed on it sets the spokes out so that the tire is kept tight, and the wheel stiff. We are often asked to give prices, and will therefore quote the list which Messrs. Baker & Hamilton publish in their catalogue, a free publication, that will be found invaluable by every farmer.

Haines' double geared header, ten foot cut, with screw hub wheels, \$325; twelve foot, do, \$350; the same sizes with iron wheels sell for \$15 more. The ten foot single gear Sweepstake header, with screw hub wheels and center pitman, \$350; twelve foot, \$375; fifteen foot, \$400; with iron wheels on the Sweepstake the price advances \$15.

Interested parties should send to Baker & Hamilton, Nos. 7 to 19 Front st., San Francisco, for further information, which we are sure will be given satisfactorily by this old leading firm.

How to Destroy Gophers.

The season of greatest trouble from these rodents is now at hand, and we are receiving



SWEEPSTAKE SINGLE-GEAR HEADER.

the usual number of questions how to kill them. Powder your strychnine fine, take pieces of carrot, one-half to three-fourths of an inch thick, slit two-thirds in two, and insert on the point of a knife or sharp stick a small amount of strychnine. Press the piece together and put it into the gopher's hole and cover it up. Mr. Gopher reaches the surface through a side hole from his main tunnel, and you should follow his side track to the main avenue to make sure of placing the food within his reach. We have at times simply pushed a spade in the ground near the hole, and, pressing it to one side, dropped the bait in the crevice; withdrawing the spade, all is nicely covered. If planted on different sides of the hole, he is pretty likely to find the food. Beets are also well liked by gophers.

A friend has recently told us that the common steel trap is the best to catch gophers when rightly set. He makes a box a foot long, of three pieces, without top or ends, just wide enough to take in the jaws of the trap when set. He then digs out a section of the gopher's main roadway and sets the trap so that the pan will be on a level with his road bed. Over this he places the box, bottom up, like the letter U inverted (n). A gunny sack is thrown over this and then covered with earth, darkening the hole without allowing the earth to fill or obstruct the passage way of the rodent to the jaws of death.

Another friend keeps his alfalfa patch clear of a dozen cats. One old cat that understands the business will soon learn the young ones. On level land drown them out periodically.

HARVESTING has commenced in some parts of San Diego county, with a prospect of a good yield in most places.

Trial Trip of the "James M. Donahue."

The trial trip of the new steamer *James M. Donahue* was made the occasion by her public spirited owner for one of the most agreeable excursions ever enjoyed by a party of ladies and gentlemen from San Francisco.

Previous to placing the *Donahue* in the line of the North Pacific railroad company, Col. Donahue decided to make her merits known to some of his friends. Saturday last was the time chosen, and at noon about two hundred and fifty ladies and gentlemen were on board in response to the Colonel's invitation.

Excursions are proverbially tiresome, but the trial trip of the *Donahue* was a happy exception, and we opine that memories of the delightful sail to Donahue, the ride through the golden harvests of the Petaluma valley, the quiet stroll along the rose embowered, smiling peopled streets of Santa Rosa, and the mazy whirl which drove the moments fleeting as they homeward sped, will long linger with the excursionists.

The *Donahue* is really a model craft for the

Anti-Monopoly Association.

A few weeks since, in answer to inquiries concerning this association, we stated that its existence was unknown to us, and requested information on the subject. In compliance with this request, a gentleman sends us a copy of "Resolutions of the Anti-Monopoly Association of the Pacific Coast; Charles Legee, of San Francisco, Secretary."

We learn from this circular that the Association was formed with a view to abolish the lease of the fur seal islands of Alaska. At the organization, December 7th, 1874, a preamble and resolutions exposing and condemning the monopoly, and declaring persistent hostility to it, were adopted and subsequently signed by nearly 300 of the business men of San Francisco. These resolutions will appear in our paper at the earliest opportunity, as they contain an apparently fair statement of the principles and minutiae of the whole transaction.

We would state here that the opposition to this monopoly is not confined to the commercial classes. We have within the past six months published communications from correspondents in the agricultural districts, and resolutions adopted by Granges and sent to the *RURAL PRESS* for publication, all of them covering the ground occupied by the Anti-Monopoly Association, and alike condemnatory of the granting of this lease.

This matter certainly has an offensive odor, and Congress should at least grant a complete explanation of all the circumstances. It is a debt which it owes to the people and to itself also. But in the meantime the people will lose nothing by looking at all sides of the question. Not that there are any mitigating circumstances to monopoly, but it happens sometimes in breaking ground for commerce that greater ventures are called for than individuals could bring to bear, and requiring an amount of experience and tact which is not available by government. Great inducements are required to enlist the capital and other essentials to success in these remarkable enterprises. The community in general being aware of the prospective advantages, and also of the risks involved, sanction governmental favors in some cases; but when the advantages are even partially secured and the risks become somewhat modified, the people often call for a revocation of all favors guaranteed, and manifest a disposition to take the business out of the hands of those who pioneered the way through to the point where the coast seems clear.

It is possible that the lease of the fur seal islands is one of these cases. At least it will do no harm to consider the matter in all its bearings.

EARNEST WOMEN.—At a recent meeting of the Teachers' Institute, at Merced, all the teachers in Merced county were present, except two gentlemen, both of whom were detained at home by sickness. One young lady rode fifty miles horseback and alone, in order to be present. Another single lady rode sixty miles from home, making a round trip of one hundred and twenty miles, in order to avail herself of the pleasures and benefits of the session. Dr. Carr, who attended the meetings for the purpose of lecturing, speaks highly of the interest and ability manifested by members of the association.

The Hollister *Enterprise* tells of a specimen stalk of flax pulled from a ranch in that county which had on it 181 bowls. These bowls will average eight seeds each, making 1,473 seeds from the single parent kernel. There are forty acres of this kind of flax on the ranch, with several acres in another field nearly as good.

CROPS are looking well in the Petaluma valley.

ONE day in the fore part of this week, says the *Lompoc Record* of the 22d inst., Mr. Geo. Anthony, while passing through a portion of the Hondo, found, in one hour, eleven swarms of bees in small and large caves in the rocks. In one cave it is believed there is five hundred pounds of honey, mostly newly made, as the comb is as white as snow and the honey the best we have ever seen.

THE Kern county *Courier* says that the late rain was of great benefit to crops in some of the valleys of that section. The crops in Bear valley will be short, but there is a prospect of their heading well and filling out.

CORRESPONDENCE.

A Promising Town.

MESSESS. EDITORS:—Lakeport is the county seat of Lake county, a neat little village on the west shore of Clear lake, one hundred miles from San Francisco, forty-eight from Calistoga, thirty miles from Ukiah and the same from Cloverdale. Has a population of about 350, seven or eight stores, tin shop, jewelry, harness and wheelwright shops; two banks, one first-class hotel, several churches, two-story school building, with an excellent graded school; a large flour mill, and lastly, a neat little county paper, *The Bee*, printed every Thursday, carefully guarding the interests of Lake county, and sounding the alarm if any harm threatens, either external or internal.

Lakeport is the port of Clear lake, has its wharf and two steamboats plying up and down the lake to various landings, thus bringing trade from other points to this town. Pleasure parties occasionally charter a steamer, and have an elegant picnic excursion to the various points of interest about the lake, and if the sea is rough enjoy all the luxuries of a genuine sea sickness. Clear lake is about twenty-five miles long with an average width of five or six miles.

This lake not only names the county, but holds on its borders and vicinity the principal arable land of the county, and hence the principal portion of the population. In a former letter I mentioned Upper Lake valley. Coming down on the west side of the lake about six miles through farms and stock ranges we arrive at Scott's valley, running back from the lake seven or eight miles, and containing many nice, comfortable little farms. The bottom land, costing considerable to clear it from timber and its immense growth of underbrush, is very productive when subdued. Where only a small portion is cleared, it is firmly held at about fifty dollars per acre, well improved at one hundred per acre.

This valley lies contiguous to Lakeport on the north, while Big valley on the south stretches off about ten miles. The latter seems to be the choice valley of the county, having at its southern end the thriving little town of Kelseyville, which claims to be the oldest town in Lake county, but not quite so large now as Lakeport. It is the trading and mechanical center for an excellent farming population. Many of the farmers have exhibited good taste in erecting good residences, and others are rapidly following their example, so that a few years will greatly change the appearance of the whole valley, and show the value of quiet land titles.

The moderate rain that fell on the 15th inst. will do much for the late grain and help the corn and gardens some. With a few exceptions the grain and hay crops will be very light this season. Had frosts up to the 16th inst, which were slightly against early gardens, but most elegant for tourists and city campers. They could not wish anything more delightful, and quite a number are spreading their tents in different parts of the county. On the hotel record at Kelseyville I noticed the name "A. L. Stone, San Francisco," without the D. D. or Rev., and presume they were left in San Francisco while the real personality would revivify by a few days' recreation and healthy enjoyment with friends here.

Spending a sabbath in Kelseyville, I was favorably impressed with the moral aspect of the community. A Union Sunday-school and also one of the M. E. church, with preaching at stated intervals by several denominations, give the impression that religious instructions are valued by most of the community. And I believe even an infidel would prefer to invest in real estate in such a community to one where no religious societies exist. But enough for the present.

Kelseyville, May 19th, 1875.

Catching Moles.

MESSESS. EDITORS:—In your issue of May 15th Mr. A. Kamp asks how to get rid of "ye merciless mole?" If no better answers have reached you, I hereby tell you how we used to do it in Denmark.

Take a strong sharp spade and go to your moleworks early in the morning or at sunset, when they are most at work. Noticing where they have been last, take up your position so that the wind blows from the mole; prepare for an attack, and stand perfectly still; when the earth moves put down your spade right smart. If possible so as to cut off their retreat, and lift the earth out, when in most cases your enemy is there. Or with a heavy club strike a hard blow, which will stun or kill Mr. Mole, and you can then dig him out. It is said that fresh elder brush stuck in their holes will drive them off by its strong smell. Another method is, to open their hole and set a pot or other smooth vessel inside, down so its top is on a level with the bottom of the burrow. If possible put a few angle-worms in, and cover up with a board or flat rock, and next morning you will likely find one or more moles in your trap. They cannot jump out of a vessel six inches deep.

C. M. PETERSEN.

Chico, May, 1875.

Pleasant Valley and Surroundings.

EDS. PRESS:—It has been some time since I wrote you relative to Pleasant valley and surroundings. The Colonia rancho, on which I live, is bounded on the south and west by the Pacific ocean, on the east by the Santa Clara river and Conejo road. Pleasant valley lying north of said road on the eastern portion of rancho Colonia. This is one of the finest little valleys in point of soil in Southern California, occupied by resident settlers who have surveyed, entered and improved the same, having most of them secured government patents; are a thriving and industrious class of farmers. Barley, wheat and corn are the principal crops grown here at present; blue gum and other trees so far as tested do well, though, as yet, the valley is destitute of irrigating ditches. Good water from surface wells are easily obtained in most places. The yield of barley this year promises much better than was anticipated three or four weeks ago, on account of damp foggy weather, which has, and usually does, supply the place of rain. Land is selling at \$25.00 per acre. The prospects of the farmers from Pleasant valley to Hueneme through the Colonia rancho, (a distance of from seven to ten miles), have been brightening for the past three weeks, anticipating a yield of from thirty to fifty bushels of barley per acre; but at this date the clouds begin to gather over the harvest; millions of grasshoppers are making their appearance in this section and we are not yet posted as to the result.

Artesian wells are easily procured throughout all this portion of the Rio de Colona lying near and around Hueneme, which if the grasshoppers do devastate the grain crops the people may from those wells irrigate a late vegetable crop, and partly supply the deficit caused by the pests. Hueneme is a small town which promises in no far future to be a place equal for business to other like towns on this coast, on account of being a prominent shipping point for grain, wool, live stock, etc.; having now one live store and two more expected this summer, lumber yards, warehouses and fine wharves already give notoriety to the place, it being conducted by live business men. Good land on this rancho is held at from \$20 to \$50 per acre.

W. O. WOOD.

Hueneme, Ventura Co., May 8th, 1875.

A New Industry.

[From our Regular Correspondent.]

EDITORS PRESS:—Mr. R. W. Wilson, lately from the East, is this summer engaged in raising a large amount of seeds in different parts of our valley for the celebrated seed firm of Briggs & Brother, Rochester, New York. Two of these seed plantations I have seen, one of ten acres, on Mr. D. C. Vestal's grounds, in the northern part of the city of San Jose, five of which are planted in yellow Danver onions, and five in two varieties of lettuce—Carter's giant white caps and Satisfaction, both new English varieties. The other is a large plantation of the same kind of onions, on Mr. Frank Bray's land on the Alameda. Both these plantations look equally well, the plants growing healthy and standing evenly on the ground; with the land under thorough cultivation—not a weed or blade of grass to be seen. Mr. W. has certainly been fortunate in his selection of lands for growing seeds, if all his locations are as well adapted to the purpose as those I have named. He says he is, so far, well pleased with the prospect of seed growing in California, as seeds raised here are better than those raised at the East—being heavier and of a better color. Then in our long rainless seasons seeds can be harvested and cured cheaper and better than where they have to contend with storms, and have to be sheltered from rains and dews while drying.

G. W. M.

San Jose, May 15th.

[We received with the above an account of the picnic at Alum Rock. This pleasant affair was fully described in the PRESS of last week.—EDS. PRESS.]

From Panoche Valley.

EDITORS PRESS:—There are two copies of the PRESS taken in the house, and we concluded we would turn missionary and send one to our friends in the far away British provinces, and give them an idea of California literature, thinking it might also give a better opinion and knowledge of the State than they could otherwise gain.

Farmers are busy with their hay harvest, which will yield about half a crop. Prices ranging from eighteen to twenty dollars per ton. There is plenty vacant land in our valley, some of which could be irrigated; but what we need here are men with means enough to erect windmills and who are not afraid of a little hard work. Then we would see lively times and our valley would "blossom as the rose." The soil is good, as is also the climate, rather warm in summer, but no fever and ague, the air being clear and dry, and entirely free from miasma.

H. R. SHAW.

Panoche Valley, Fresno Co., May 20th, '75.

A Trip to Lake County.

EDITORS PRESS:—I have just returned home from a flying visit to Lake county, and will give you a brief description of what I saw. Aside from the fatigue of a long horseback ride, I enjoyed the trip very much. Just at this time of the year the scenery along the mountain road from Cloverdale to Lakeport, is perfectly magnificent; and I assure you a lover of nature could have found a delicious feast for his eyes had he been with me. The most beautiful view I had of nature's own works was just as I was nearing the last peak of the chain of mountains between Cloverdale and Lakeport. The sun was shining brightly and no smoke or fog obscured the silvery lake. At a first glance the whole valley seemed to be one vast sheet of shining water, wedged in between huge mountains whose snowy peaks seemed laughing down upon the lake. But traveling on a little further we were suddenly reminded that our first impression was but a sweet illusion; for, in the foreground, we beheld a beautiful valley, clothed in nature's green verdure. Taken all together, the view from this point goes to make up a very pleasing picture.

I spent a few hours at the Highland springs, situated at the foot of the mountain, and I am convinced that its waters possess strong medicinal qualities in no small degree. For rheumatism and all diseases arising from impurities of the blood it is especially recommended, and a trial is all that is necessary to prove the truth of this statement.

The early sown grain up there is looking first rate, and the farmers are generally inclined to believe they will have tolerable fair crops.

The Grangers there, as well as here, are earnestly striving to advance the interests of their noble order. It is to be hoped their efforts will be crowned with success; for none are so deserving of success as those who are laboring for the good of their fellow men.

EUGENE ORBILUS.

Healdsburg, May, 1875.

Hay Crops.

EDITORS PRESS:—The mower has laid low many fields of hay, which is fast being gathered in barns or stacks, ready for the baler. After passing through its many drawbacks, a fair crop will be realized and a good price in market, for many think as feed has dried up so early this year hay will command a good price. Farmers see the benefit arising from summer fallow. Sacramento county hardly ever passes a season without reaping her share of crops, and stands on a par with any other in the State. With the tame white oats generally raised is a new variety, called the Australian. It grows with longer heads, thicker, and grain more compact, and will yield heavier per acre. It is pronounced equal if not superior to the tame variety. Some will yield two tons per acre, and has grown from three to six feet high on summer fallow. Had it been sown thicker I have no doubt it would reach three tons per acre. As a general rule farmers do not sow their grain thick enough. Experience has taught me and many others to cross-sow summer fallow land, as we cannot sow too thick. The thicker it is sown the finer and heavier the yield. Sow from 100 to 150 pounds per acre. On volunteer land we should not depend on what it will seed itself, but sow, say sixty pounds per acre.

Barley.

Preparations are being made to clip the grain. A half crop will be realized on the plains. On low land and bottoms a fair yield will recompense the sower.

GEO. RICH.

Sacramento county, May 18th, 1875.

A GUN MANUFACTURED IN AN HOUR.—A gentleman recently called at the Remington gun manufactory at Ilion, N. Y., with the view of making the purchase of some arms. He was shown through the works, and evinced great interest in all the processes. At the close of his tour of inspection a gun was shown him and repeatedly discharged in his presence. He was then told that since his entrance into the works every part of the identical gun just fired had been manufactured and put together, and that his own eyes had witnessed every stage of the work. He then offered to purchase five or six loads of guns which the Spanish inspectors had recently rejected, probably with the view of getting some small reduction, and paid the Messrs. Remington the price named in the original contract. It is supposed that this unknown gentleman was an agent of Don Carlos. If this be the case the Spanish government has through its officials quite overreached itself.

THE PLANET URANUS.—The spectroscopic has enabled astronomers to ascertain that the atmosphere of the planet Uranus, which is further from the sun than any other planet except Neptune, is composed chiefly of hydrogen gas. Mr. Proctor says that if there is even a small proportion of oxygen present, an electric spark, however minute, would cause tremendous convulsions by combining the hydrogen and oxygen into water. The *Spectator*, referring to his assertion that there is probably no life upon the planet, asks, "Why may there not be life which needs no oxygen?"

POULTRY YARD.

Lice on Fowls.

EDITORS PRESS:—The communication from Subscriber in the PRESS of April 24th has elicited numerous letters asking me questions which I hope this short notice may mostly answer. I had intended to write an article for the PRESS on the subject of Lice on Fowls, of which there are four varieties and to which nearly every disease in this climate may be traced, but I have not found the time. This much my letter to Subscriber said, that droopy looks, hanging wings, excrement adhering to fluff, gapes, etc., in young chicks, all come from lice. I find nothing equal to carbolic powder. I import it for myself and my customers. Next to it in efficacy is sulphur. When the hen commences to sit, she should be removed to some secluded place. Before eggs are given her, her nest should be cleaned and fresh hay or sod placed in it, and she should be thoroughly dusted with carbolic powder or sulphur, especially in among the fluff. When the chicks are hatched they should be free of lice, but even then a large louse, upon which the insect producing the gape worm is a parasite, will find a lodgment on the heads of the chicks. This louse is the cause of nearly all the mortality among chicks; and the truth of this is demonstrated by the fact that I have not lost one chick by disease this year, though I have a good many hundred. To prevent the advent of this louse, which otherwise is as certain as fate after the rains cease, I use an ointment with which I sparingly anoint the head of each chick. Sparingly, or it will kill the chick. Take a very small quantity on the finger and "plaster" down the feathers from the back over the head to the body, a little around the neck and under the throat. In twenty-four hours any lice there will have disappeared, and no more will harbor on the head for five or six weeks at least. If at that age the chicks show any signs of drooping, anoint again. This is all the trouble I have with lice. If the bodies of half grown chicks be full of lice, use the carbolic powder. My neighbor, Mr. John Ward, showed me a lively chick which the day before had been unable to get around and which he had picked up and dusted with carbolic powder and touched with the ointment rather generously, as he remarked "it would die anyhow," and the result showed that lice was the sole cause of its dying condition, and that the use of the powder completely restored it. This ointment can be had at any drug store. The recipe is: Take of mercurial ointment and lard, each one ounce; flour of sulphur and crude petroleum, each one-half ounce. Mix—make an ointment. Use very sparingly as directed.

M. EYRE, JR.

Napa, Cal., May-17th.

Fish Culture and Protection.

The protection and culture of fish has attracted no little attention in the past few years throughout the country, from Maine to California. Why should not Kentucky look to so great an interest? Let her streams be protected, as in other States, from seines and poisoners, and they will afford not only fine sport to the angler, but support, at least in part, to a vast number of families in the more sparsely populated portions of the State.

This is no new subject. It is considered in China of paramount importance now, as it has been for centuries. Mr. G. H. Colton Salter, ex-United States Consul to China, tells us that the people there hold in great reverence anything in the way of fish which contributes largely to their support, and they ascribe especial virtues to the medicinal properties of the oil of the shad, considering it almost a specific for affections of the air passages, and, in its early stages, a positive cure even for consumption. The Chinese show the greatest care in keeping the waters free from taint and poison. Their rivers are probably as full of fish to-day as they were 4,000 years ago.

If this subject is of such great consideration in the oldest country of the world, it should certainly command, in some degree, attention here in Kentucky. With our limpid large springs, ponds may be made, in which the trout, and the grayling (a new fish), may be propagated successfully. These with the gamey black bass and newlight, would not only afford fine sport to families, but a very desirable, wholesome food. No farm should be without a pond well stocked with fish, even though they be small black or sun perch. To catch them affords amusement to children, and not unfrequently to men and women.

Fish eggs—even young fish—can be safely transplanted and cultivated in any stream or pond. All that is wanted is the will to do it. Let the owners of rich, broad acres in this happy blue grass region think about this matter, make ponds, and stock them with good fish. They will never regret it.—*Kentucky Livestock Journal*.

MUSIC FROM GAS JETS.—An extraordinary new musical instrument, called the pyrophone, invented by M. Kastner, of Paris, has been exhibited at the Society of Arts. The notes are produced by the singing of gas jets in glass tubes, and are sweet and pure, and, at the same time, have great penetrative power. After the reading of the paper on the invention, illustrations of the music emitted were given separately and in concert with the human voice.

SHEEP AND WOOL.

Eastern Wool Markets.

NEW YORK, May 22d.—There are but few changes to note in Wool. The market has been moderately active for fine grades of California and Texas, and the prices realized were quite satisfactory throughout. There is no very heavy business looked for until after the arrival of the new clips of Ohio and Western fleeces, for manufacturers believe that with a continuance of the present remuneration prices for goods, receivers of the raw material may be induced to recede somewhat from their present ideas. Australian sells slowly at 51@52½ cents. The cargo of Sidney, ex *Europa*, amounting to 1,300 bales, will be offered at public auction on next Wednesday. Carpet stock is meeting with a general demand, and prices are steady. The sales for the week are 148 bales Australian clothing, at 51@52½c.; 10,000 lbs. do. combings, at 55c.; 85 bales Cape, 33@35c.; 8,000 lbs. Mexican, 22c.; 25 bales East India and 224 do Rio Grande, private; 224 do California, 15½@22c.; 26 do new spring, 30@35c.; 10,000 lbs. slightly burry, old stock, 22c.; 341 bags scoured do, 65@72½c.; 25,000 lbs. California lamb's, 26c.; 328 bags western Texas, 23½@28½c.; 75,000 lbs. East-rn do, 24@32c.; 25 bales Nevada, 32c.; 10,000 lbs. selected Ohio combing fleece, 70c.; 3,000 lbs. fat sheep's, 40c.; 195 bags super and X pulled, 43@48c.; 50 do black do; 3,000 lbs. Connecticut fleece, 2,000 lbs. combing, do, and 5,000 lbs. medium unwashed Western do, on private terms.

BOSTON, May 22d.—There is no prospect as yet of any improvement in Wool, although there has been rather more doing the past week. The market is dull for all fine Wools, and prices are unsatisfactory. Manufacturers are looking for lower prices for all descriptions of clothing Wools when the new clip begins to arrive. Combing and desirable lots of medium fleeces are likely to sustain a good range of prices as long as manufacturers continue to run on these grades, as the supply is limited, but otherwise the prospects of the trade are not very encouraging. Sales of Ohio and Pennsylvania fleeces have been 10,600 lbs., at 55@56c. Choice XX fleeces have been held at 52½@53c., and these are extreme prices for this description, while medium and No. 1 range 3@5c. higher. Michigan and Wisconsin fleeces have been taken only in small lots, at 47@50c. California Wool has been arriving more freely. Sales have been 440,000 lbs., at 22@24c. for spring, and 17@25c. for fall. Some of the recent receipts include fancy lots, and as high as 40c. P. B. has been obtained for a small lot of 1,500 lbs.; but this is no criterion of the market; 35c. may be considered an outside figure for choice Spring, and 30@32c. for good average lots. The receipts so far have been taken on arrival, but stocks at the close are beginning to accumulate. In pulled Wool there is very little change; good and choice Eastern and Maine superfine are still in demand, at prices ranging from 50 to 57c. There have been sales of combing and delaine at 56½@65c.; scoured, 47c.@\$1.08; super and pulled, 40@57c.

Sheep Raising.

[By Col. E. S. STOWELL.—Continued.]

Ancient Shepherds and their Flocks.

The comparative histories of the primitive shepherds with the nomadic shepherds of today, show so many points of resemblance, and with such tenacity to the traditions of their elders on the part of the Arabic shepherds, whose customs are almost identical with those of the Patriarchs, that it is fair to suppose them entitled to the credit of inventing the very simple process by which Arab women manufacture from the wool of their flocks now.

Burkhardt thus describes the loom at present found among the Arab shepherds: "The Arabs use a simple loom; it is called *ulon*, and consists of two short sticks which are stuck in the ground at a certain distance, according to the desired breadth of the *shanki*, or piece to be worked; a third stick is placed across over them and over the two horizontal cross sticks, the wool. To keep the upper and under wool at a proper distance from each other, a flat stick is placed between. A piece of wood serves as the weaver's shuttle, and a short gazelle's horn is used in beating back the thread of the shuttle. The loom is placed before the maharem, or women's apartment, and worked by the mother and her daughters. The distaff is in general use among them, and among the Kilby Arabs all the shepherds manufacture wool."

It is probable that the covering of primitive sheep was a mixture of hair and wool, closely akin to that of many varieties now occupying extensive districts where the Patriarchs wandered, northward and eastward, through a great part of Europe and Asia, and our own Mexico and South America. Says Youatt, "It is highly improbable that the sheep which has now become *par excellence* the wool bearing animal, should in any country, at any time, have been entirely destitute of wool, but covered externally with hair, and underneath with a fine, short, downy wool from which the hair is easily separated." Partially by temperature, perhaps, but mainly by breeding and cultivation, this hair has been caused to disappear and its place occupied, yea, more than occupied, by the soft

clean wool, once of but few ounces, but now of many pounds.

In the palmy days of the Roman empire the Italian sheep surpassed all others in the fineness of their fleeces. The sumptuous Roman was clothed in woolen fabrics of the finest texture, and fortunes, even according to ideas of to-day, were often expended for his *toga*. "The best wool of all others," says Pliny, "is that of Apulia and Tarentum, which is of a very short staple, and especially in request for cloaks and mantles." "This induced that extreme assiduity in perfecting the material for its manufacture," says Youatt. "Although the old Tarentine sheep produced a wool unequalled in early times, they were not without their defects, and very serious ones, too. They were called by the agriculturists of those days *orellite*, from the skins and other clothing with which they were covered; and also *molles*, not only from the softness of their fleeces, but from the delicacy of their constitution and the constant care that was required to preserve them from injurious vicissitudes of heat and cold. The care bestowed upon the fleece was a work of great labor. It was frequently uncovered, not only to ascertain its condition, but for the refreshment of the animal; it was drawn out and parted, and combed if it was beginning to mat; it was frequently moistened with the finest oil, and even wine; it was well washed three or four times a year; the sheep houses were daily, and almost hourly washed and cleaned and fumigated."

The introduction of silk and cotton fabrics from the East, better adapted to the climate of Italy, caused the celebrated flocks of Apulia and Tarentum to disappear, to be succeeded by a larger, coarser, but more profitable race, better suited to the time. In A. D., 41 Colum-

ella, a distinguished agriculturist, introduced many of the Tarentine breed into Spain. They had gradually spread from Syria and the Black sea into Italy, and arrived at eminency. They bore a red fleece, and were superior to all others in fineness. They are considered to be the foundation of the merino race, and the occasional occurrence of a red ear, or red spots, or red legs, in the best of our flocks at the present day, would be in a measure corroborative.

(To be Continued.)

GREEN BRONZE ON IRON.—A process for producing a green bronze on iron, devised by Paul Weiskopf, is given by *Dingler's Journal* as follows: One part of sylvate of silver is dissolved in twenty parts of oil of lavender, forming a sort of varnish, which imparts a beautiful and permanent green bronze appearance to cast and wrought iron, sheet iron and wire. The surface to be bronzed is cleansed and dried, but need not be polished. The varnish is thinly applied with a camel's hair brush, and the object heated quickly to 300° Fahr. The proper temperature is indicated when the article shows a bright green color which is even all over it. To produce a bronze drawing, Venetian turpentine or colophonium solution is substituted for part of the lavender oil. It is better to rub up the dry sylvate of silver with resin in a mortar or on a palette, and then add enough lavender oil to make it as thin as ordinary paint. Articles of iron bronzed in this way can afterward be electroplated.

LIQUID PARCHMENT.—According to Dr. Hoffman, a fluid by this name, consisting of gutta-percha softened and soaked in ether, is especially adapted for forming a coating for pictures and cards, it permitting the removal of dirt with a moist rag. Pencil and crayon drawings may be rendered ineffaceable by sprinkling with this liquid by means of an atomizer, an exceedingly delicate film remaining on the evaporation of the ether.

MAKING BRITTLE GOLD STRONG.—Gold is sometimes so brittle that the jeweler can not well work it; this is probably due to phosphorus, which, being no metal, is of course not detected in the assay. The remedy is to pass chlorine gas through the molten gold, by which treatment most of the gold which had otherwise to be set aside as unfit for certain kinds of work, can be redeemed.

THE DAIRY.

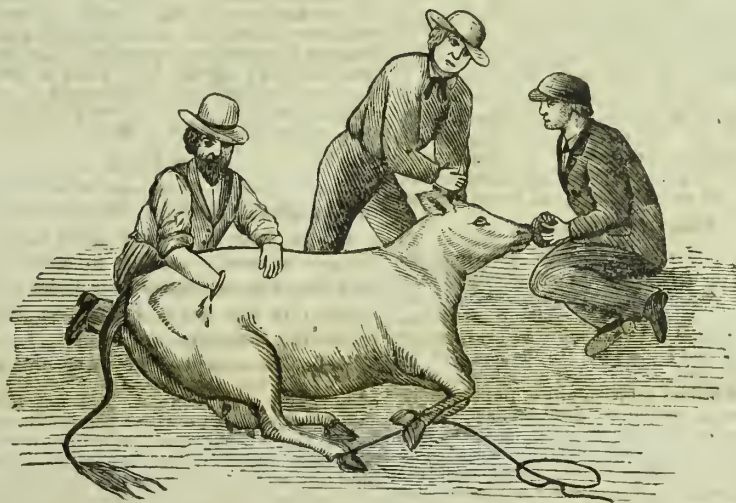
Spaying Cows.

EDITORS PRESS:—In this country, it is believed there is but little known and little or nothing done in the matter of spaying cows. The object of it is first, to obtain better milk and that continuously; second, that the cow may fatten easier; third, to obtain a better quality of beef. Now that ether and chloroform can be employed preliminary to the operation, and thereby banish the feeling of cruelty, either one of these three objects may justify its adoption. And generally, all three of them sooner or later follow as a result. A few books on veterinary surgery describe the steps of the operation as follows:

Select a cow five to seven years old; by means of hobbles cast her upon her right side, and render her insensible and unconscious by a mixture of ether and chloroform in equal parts, applied with a sponge to the animal's nose. The casting ropes are slackened to free the limbs, and prevent pressure on the walls of the abdomen. This gives more room for your hand to manipulate for the ovaries. These are two soft bodies about the size of a walnut lying on either side or horn of the uterus or womb.

First Stage of the Operation.

You pinch up a fold of the skin on the left side, midway between the prominent bone of the hunch or pelvis, and the last or posterior



THE OPERATION.

rib, about four inches from the transverse processes of the lumbar vertebra (small of the back). Divide this fold of skin with a cut about five or six inches long; then make another and deeper incision of the same length through the abdominal muscles or wall, until the peritoneum (lining membrane of the abdominal cavity) is exposed. This membrane is then punctured by means of a beak-pointed knife, into which puncture a probe-pointed knife is inserted and the tissue opened to the full extent of the other incisions. Some advise to make the cut parallel with the spine, but the one depicted in the outline sketch, is seen to run from above downwards and backwards.

Second Stage.

The operator kneeling close by the cow's back, passes his right hand within the brim or cavity of the pelvis and seizes the deep-seated or right ovary and removes it by laceration. This is done by the other hand assisting; and using trifling force the ovary is torn away. The other ovary is then sought for and treated in like manner. No ligatures are needed to ruptured uterine vessels, since a torn blood vessel seldom bleeds.

The Third Stage

Of the operation is to close the abdominal wound. This is accomplished with a curved surgeon's needle armed with four or five beeswaxed threads of shoemaker's twine, and the lips of the wound brought together with stitches placed about an inch apart or so. These stitches may at once pass through the skin and muscular wall of the abdomen, but not to include the peritoneum. Yet to include the peritoneum mischief or inflammation thereof need not necessarily follow. The wound should unite in two to four days so that the stitches can be removed by means of a sharp pointed scissors or a fine pointed knife.

Result.

One man in Massachusetts writing in June of the third summer after spaying, says: "My cow has continued to give milk ever since, varying from seven to sixteen quarts per day, according to the season. At the present time she averages about ten quarts per day. The quality of milk is superior. She begins to increase in flesh and I presume the quantity of milk will decrease proportionally. But I see no reason why she will not continue to give milk a year or two longer, at the end of which time she will be in superior condition for beef, and command the highest price." S.

USEFUL INFORMATION.

The Fahrenheit Thermometer.

"Zero," on the common thermometer, like the fanciful names of the constellations, is a curious instance of the way wise men's errors are made immortal by becoming popular. It may be worth while to say that the word itself comes to us through the Spanish from the Arabic, and means empty, hence nothing. In expressions like "90° Fahr.," the abbreviation Fahr. stands for Fahrenheit, a Prussian merchant of Dantzic, on the shores of the Baltic sea. His full name was Gabriel Daniel Fahrenheit.

From a boy he was a close observer of nature, and when only nineteen years old, in the remarkably cold winter of 1709, he experimented by putting snow and salt together and noticed that it produced a degree of cold equal to the coldest day of that year. As that day was the coldest the oldest inhabitant could remember, Gabriel was the more struck with the coincidence of his little scientific discovery, and hastily concluded that he had found the lowest degree of temperature known in the world, either natural or artificial. He called that degree zero, and constructed a thermometer, or a rude weather glass, with a scale graduated up from zero to the boiling point, which he numbered 212, and freezing point 32—because, as he thought, mercury contracted the 32d of its volume on being cooled down from the temperature of freezing water to zero; and expanded 180th on being heated from the freezing to the boiling point.

Time showed that this arrangement, instead of being truly scientific, was as arbitrary as the division of the Bible into verses and chapters, and that these two points no more represented the real extremes of temperature than "from Dan to Beersheba" expresses the exact extremes of Palestine.

But Fahrenheit's thermometer has been widely adopted, with its inconvenient scale; and none thought of any better until his name became an authority, for Fahrenheit finally abandoned trade and gave himself to science. Then habit made people cling to the established scale, as habit makes the English cling to the old system of cumbersome fractional money.

Our nation began to use Fahrenheit's thermometer about the middle of the last century, or not far from the time when old style was exchanged for new style in the writing of dates.

The three countries which use Fahrenheit are Holland, England and America. Russia and Germany use Reaumur's thermometer, in which the boiling point is counted 80° above freezing point. France uses the centigrade thermometer, so called because it marks the boiling point 100° from freezing point.

On many accounts the centigrade system is the best, and the triumph of convenience will be attained when zero is made the freezing point, and when the boiling point is put 100 or 1,000° from it, and all the subdivisions are fixed decimally.

If Fahrenheit had done this at first, or even if he had made it one of his many improvements, after the public adopted his error, the luck of opportunity, which was really his, would have secured to his invention the patronage of the world.—*Ex.*

FOREIGN TALENT AS AN AID TO PROGRESS.—Some countries, such as Russia for instance, have always done their best to attract foreign workmen, foreign artists, foreign talent of every sort, conceding special rights and immunities to the valuable colonists whose skill and knowledge silently help to reclaim the natives from barbarism. But for such importations from England, Holland and Germany the great empire of the Czars would not at the accession of Peter the Great have possessed a ship, or a sailor to navigate it, or a foundry for cannon. Some famous old manufactures are now all but extinct in the birthplace of the art. Toledo and Damascus no longer furnish their historic sword-blades to half a world; Florence and Mantua no longer clothe Europe; the Venetian glass has been but artificially revived, for none can obtain the subtle spirit Prosperity to their chariot wheels; and when greed or neglect has brought about the period of decay, it is but a blank prospect that awaits native industry.

HOW TO MAKE OIL LAMPS SAFE.—A great many accidents are happening every day from the use of kerosene. I will tell you a method by which they can be to a great extent prevented, and I hope you will publish it for the benefit of poor people, who are obliged to buy cheap oils. If the body of the lamp is filled with cotton, such as jewelers use to wrap their articles in, after it is stuffed lightly it will receive one-half the quantity of oil which it would if the cotton were not put in. If any accident happens, the oil cannot spill or flow about; but is, as it were, "sopped up" in the cotton, which burns like a fagot, but all in one place.—*Ex.*

TO RENDER PAPER OPAQUE AND AGAIN TRANSPARENT.—It is worth knowing that if one volume of castor oil be dissolved in two or three volumes of spirits of wine it will render paper transparent, and, the spirit rapidly evaporating, the paper, in a few minutes, becomes fit for use. A drawing in pencil or in Indian ink can thus be made, and if the paper is placed in spirits of wine, the oil is dissolved out, restoring the paper to its original condition. This is the discovery of Herr Fuschner.

PATRONS OF HUSBANDRY.

THE HEADQUARTERS of the California State Grange are at No. 6 Liedesdorff street, in rear of the Grangers' Bank of California, No. 415 California street San Francisco.

To the Stockholders of the California Farmers' Mutual Fire Insurance Association.

NOTICE.—There will be a meeting of the stockholders of this company on Tuesday, June 1st, 1875, at their office, No. 6 Liedesdorff street, San Francisco, for the purpose of increasing the capital stock to Three Hundred Thousand (\$300,000) Dollars. By order of Board of Directors.

W. H. BAXTER, Secretary.

"Indispensable," Etc.

ST. HELENA, May 13th, 1875.

MESSES. DEWEY & CO.—Enclosed please find check on Grangers' Bank. Continue my subscription; I can't get along without the RURAL. To those who feel an interest in the Grange movement, or in any branch of agriculture, the RURAL is one of the indispensable luxuries. If they carefully read and analyze its contents, they can find information enough in almost any number to pay their yearly subscription.

Respectfully yours, J. W. C. Secretaries will be supplied with a printed list of subscribers for this paper upon sending a list of their offices within the range of their Grange. Also with blank reports, etc., for clubs.

Grange Directory.—A full list of officers of the State Grange, Deputies, names of Councils, Subordinate Granges, Masters and Secretaries will appear in this department on the first Saturday of each month.

The Ceremonial of the Grange Room.

The beautiful ceremonies of initiation, the opening and closing exercises and the music of the Grange, each and all, when properly rendered, carry a charm and impart a universal satisfaction to the members of our Order, which are quite sufficient, without any other moving cause, to bring out the great multitudes which are everywhere thronging our meetings. These exercises appear to be just what has long been needed to carry social zest and intellectual enjoyment to those thousands of farmers' homes in every part of the land, where but little of either has hitherto been seen or felt.

No true Patron will ever feel that the ceremonial of the Grange room, however often it may be repeated, is ever a waste of time. The principles and ideas inculcated thereby can never be too strongly impressed upon the mind. In the words of a cotemporary—"they teach not only by the voice through the ear, but through the eye and other senses, and are virtually grand object lessons. To be truly social the manners must be softened and the language refined. To many the service in the Grange room will prove a supplement to the common school. Greater care will be given to habits of clear, distinct, effective reading, than now prevails. Many who can read to themselves so as to understand through the eye alone what they read, are unable to read aloud for the information of others. This will be greatly improved by the business in the Grange."

The presiding officers and active business men in most of our local meetings are generally professional men or those engaged in mercantile or mechanical employments. But it is one of the objects of the Grange to furnish a training by which our rural population will also be qualified for such duties, and thereby be led to a more general and intelligent performance of their duties as citizens.

The teachings of the Grange tend to make useful citizens of its members and lead to correct and independent habits of thought and speech—qualifications invaluable to every citizen of a free government. We know of no better school for such training than the Grange, and we venture the assertion that no other society, secret or open, is able to convey one-half the benefits to its membership, for the same amount of money and time expended, that the Order of Patrons of Husbandry does.

The Canadian merchants appear to be getting reconciled to the Grange, as at the last quarterly meeting of London Division Grange "it was resolved that the names of manufacturers and dealers who have made offers of reduction in the prices of articles to the Division Grange be printed for distribution."

GRANGE ADDRESS, ETC., NOT GIVEN.—A notice of the death of Miss Nellie Hamilton has been sent us without date, address, or name of Grange to which she belonged. Our friends will see the propriety of filling these blanks before publishing the resolutions sent us.

COUNCIL MEMBERS.—Bros. Webster, Applegarth and Yolland, were recently elected members of the Alameda County Council, Patrons of Husbandry, by Temascal Grange.

SINCE the birth of the Order of the Patrons of Husbandry, agricultural colleges are certainly securing more practical teachers, and furnishing better instructions.

The Political Duties of Grangers and all Other Honest Citizens.

EDITORS PRESS:—It is well understood by our brotherhood that no Granges can take certain political action. This is fully and clearly pointed out in our Declaration of Purposes, or as it is sometimes called, the platform of the Grange. It is also understood that Granges have and use the right of petition to our legislative bodies, requesting unpartisan enactments to secure the general welfare of the people and the protection of our varied industrial interests, without reference to political differences. It is equally well known, and often to the sorrow and suffering of a wronged people, that these petitions are too often disregarded or receive only a tantalizing and futile attention, unless there are in our legislative halls a majority of true men who are sincerely devoted to industrial interests. Now it is of the utmost importance not only that farmers and their friends, but that all the industrial classes and their friends should use that degree of foresight which is needed in managing all human affairs successfully, and see to it in time, that such men only are placed in our legislative bodies, and in every position of trust as will

Heed Worthy Petitions and do Their Duty.

No matter by what party name they may be known. Let us apply this principle to California in our present wants, so that it cannot be misunderstood. It is the urgent duty of every farmer, mechanic, miner and other representative of the industrial classes, and all who are truly their friends, to see that every man who, by the election in September next, is intrusted with the power of making, or executing or interpreting our laws, must be in favor of at least three great legislative enactments, vital to the industrial, as well as to the commercial interests of our State. Let no man be our choice, no matter whether he be known as a Republican or a Democrat, or an Independent, unless we are sure he will at all times sustain

These Three Measures:

1. A prudent and effective, but just law regulating the freights and fares of railroad and navigation companies in California, thus making all such corporations, common carriers as they are, amenable to the laws, as every other corporation and citizen is. In the name of all that is just, arrange it so that a railroad company, enriched by a lavish gift of public lands, with a boasted capital of \$100,000,000, cannot charge any man, rich or poor, such exorbitant rates as the following: \$21 for carrying an old header on a flat car sixty miles, and the owner unload it, and receive for a reply when he seeks redress, "Really, we could not afford to carry it for less," or words to that effect.

2. A feasible, economical and just law to secure to the State of California the necessary control of the waters of the State, for the purpose of having irrigating and navigable canals so constructed by responsible and competent corporations, as become "the greatest good to the greatest number." Let such law empower the State to have surveys made and thus determine where such canals can best be run to secure her general interests, present and future, as well as the rights of her humblest citizens. Let the law prescribe such regulations for each company constructing these canals as will require a just distribution of the water and fair charges for the same. Above all things, let it so provide that the strong arm of the law will protect the poorest and humblest farmer, who needs the water to save and make his crop, against wrong and imposition; let it protect him in his rights against any wealthy corporation, more powerful than he is, that may choose, either from caprice or spite, as sometimes happens in the events of life, to hate and harm him. For wise provisions in such a law, safe guides can be found in the models furnished by other nations, some not as civilized as we are, who have long irrigated extensively and successfully. The distant future alone can tell how great a blessing such a law and its consequences would be to California. This scheme can be carried out at a moderate annual expense to the State of not more than thirty thousand dollars (\$30,000.) Any tax necessary to meet this expense could be most justly raised from those districts to be benefited by such canals.

3. Provision for the most judicious management of the agricultural lands of the State University, a proper development of its departments of Agriculture and the Mechanic Arts, and a liberal management of its general interests, such as will represent all parts of the State and each class of our citizens.

A few moments' reflection will show that these measures can be advocated and provided for by us as American citizens without interfering with our duties as members of the Grange. Our industrial classes generally and their sympathizers desire important reforms. Nothing is surer than that all honest citizens

Must Work for Their Rights, if They Expect to Gain Them.

Beyond question other reformatory enactments are equally as desirable as the above, but could these points be secured by the election of '75, they would be most valuable steps in advance. Yours fraternally, J. W. A. WRIGHT. May 8th, 1875.

From the Granges.

Bernardo Grange.

EDITORS PRESS:—Accidentally getting hold of some of your papers at a neighbor's, I noticed that you publish "Reports from Granges" from different parts of the State, so I thought that perhaps you might like to put in a small one from ours. Our Grange here has just been dedicated by a grand May-day picnic and ball, which was a decided success, both financially and "pleasurably." We wished to have a good time and at the same time "raise the wind" a little for the purpose of getting furniture for the new hall. As I came away before the cash was counted I cannot say how much was realized, but from the numbers in attendance it must have been quite a pile. The exercises began with the crowning of the May queen (Miss Kitty Sikes), followed by an address by Mr. Hendricks, a rising young lawyer from San Diego, also one by Mr. Leach, a tonguey little chap of the firm of Chase & Leach, of San Diego, both speeches full of good sound sense as well as spicy—especially the latter. After the speeches, a song by some of the ladies and gentlemen of the Grange, and then the "dinner in the woods," swinging, etc.

The pleasure of the picnic was somewhat marred by the dampness of the grass, it having been showery during the night before and until ten o'clock of the forenoon. Among the visitors from town (San Diego) I noticed the Hon. James McCoy, Sheriff Hunsaker, Capt. A. S. Grant, county clerk, and Mr. Bush. The company went from the grove to the hall, where excellent music was discoursed, and dancing was lively until midnight, when the company adjourned to supper. The feast prepared by our worthy matron and daughters could not but have satisfied the most dainty of epicures, both as to quality and quantity. The dancing was then kept up till "We won't go home till morning, till daylight doth appear." "Long may she wave." W. J. WHITNEY.

Bernardo, Cal., May 3, 1875.

Salida Grange.

EDITORS PRESS:—It seems to be a failing with the Grangers of this State, whenever they have a harvest feast or a good social time in the Grange, to want everybody to know it; and they generally accomplish their desire by publishing it in the RURAL PRESS. So you will pardon this intrusion.

Salida Grange held a regular meeting on the 6th, which was the second anniversary of its organization, and while we did not think it advisable to celebrate with a picnic, as we had but a short time since, in conjunction with Stanislaus and Ceres Granges, held a picnic at Modesto, we did think proper to cultivate on that day, to some extent at least, the social feature of our noble Order. The members of the Grange turned out generally with their little ones. Our Worthy Master having caught sight of the baskets in the ante-room, dispatched business very rapidly, and in a short time a table was prepared and the sisters placed on it the contents of their baskets. I will not attempt a description, will simply say in my estimation, it can't be beat. The little Grangers enjoyed themselves fully as well as the older ones; and I think had Brother Cressey been present, it would have forever removed his doubts about the Grange dying out in this section on account of the scarcity of the young Grangers.

Wheat is coming out wonderfully in the last few weeks, and with moderately cool weather we will raise more grain than we did two years ago. A. H. ELMORE, Sec'y Salida Grange.

Salida, Stanislaus county, May 11, 1875.

Keystone Grange, Tulare County.

EDITORS PRESS:—Keystone Grange, organized February 27th, 1875, with twenty-five charter members, by Worthy Deputy M. S. Babcock. E. Axtell was elected Worthy Master. We have thirty-four members now, and more proposed. We had a May day picnic which was a grand success—the greatest gathering ever assembled on Mussel Slough. We had very appropriate speeches by Rev. Mr. Price and Worthy Deputy M. S. Babcock, after which we partook of a sumptuous feast, prepared by the ladies of this and other Granges. All seemed well pleased and general good feeling prevailed. Our Grange is wide awake in regard to the Grangers' Business Association of Tulare county, and every time we discuss the question we gain more light and become more deeply interested. N. R. GOLDIN, Sec'y.

Grangeville, Tulare county, May 10th.

Pescadero Grange.

EDITORS PRESS:—At a regular meeting of the Pescadero Grange, held May 8th, 1875, the following preamble and resolutions were passed:

WHEREAS, A knowledge of the forces, elements and laws of physical nature is indispensable to the highest, most productive and successful agriculture, and

WHEREAS, The various branches of physical science involving this knowledge are greatly neglected in our common schools, therefore

Resolved, That the State Grange be earnestly requested to take into consideration the most effective method of diffusing a popular and practical knowledge of these branches of science among our agricultural population, and of introducing their study into our common schools as an indispensable part of the education of our children.

Resolved, That the original be sent to the State Grange, and a copy to the PACIFIC RURAL PRESS for publication.

H. B. SPRAGUE, Sec'y.

Panama Grange, Kern County.

EDITORS PRESS:—As I have not seen anything in your valuable paper from Kern island for some time, probably a few thoughts will not come amiss. Our Grange is in fine working order, with seven propositions on the table and a class of six on the floor.

Crops, as a general thing, look well. We shall have more than an average harvest.

At our last meeting we had to deal with that outrageous Alaska swindle. It does not seem possible that the Congress of these United States of America could lease into bondage a portion of its citizens. We of Panama Grange, No. 138, give our whole sympathy to those people, and ask Congress to undo this great wrong as far as it lays in their power.

We are still going ahead and now have ten applications before the Grange for the first degree. Who will say that Panama Grange is not alive? At our meeting on the 14th, we conferred the fourth degree on two brothers, also the third on two more and the second degree on one sister. After the fourth degree was conferred we had a harvest feast, and such a feast it was! I do not know that the table groaned, but there was some groaning done after the feast was over. Probably by Bro. Shelly.

Mr. Editor, I wish you could have been here, or the President, or the Emperor of Russia, or any one but Nashy to write the praise that our sisters deserve. Nashy would not do, as we had no liquid refreshments to suit his taste.

This Grange has passed a resolution and appointed members to meet the Board of Equalization to see that the taxes of this county are equal. I think it is a step in the right direction, and would recommend all Granges to do the same. Our motto is: Root out corruption in all its forms. Honest men for office, which will secure an economical government.

We have had quite a rain to-day. It lasted about three hours, and came down in earnest. It will cause some of our grain to fall so it will be bad to harvest, but that is better than no grain. S. BAKER.

Panama, Kern county, May 15th, 1875.

Mussel Slough Grange, Tulare County.

EDITORS PRESS:—Not seeing anything in your paper in regard to our Grange, I thought I would inform you of the fact that Mussel Slough Grange, No. 243, P. of H., was organized February 26, 1875, with twenty-nine charter members. I send the names of officers elected for this year. Our Grange was organized by Deputy M. S. Babcock, and we supposed he had sent you a notice of the organization. WESLEY UNDERWOOD.

Grangeville, Tulare county, May 15, 1875. [This is the first information received by us concerning the above Grange. The notice of election of officers will be found in its appropriate place.—EDS. PRESS.]

Elko Grange, No. 9, Elko County, Nevada.

EDITORS PRESS:—Our Grange is prospering well. We conferred the first degree on a class of four sisters on Monday, the 3d inst., and three brothers; on Monday, 10th inst., a class of two brothers. T. A. TINKER, W. M.

Elko, May 12th, 1875.

What the Granges Have Done.

The New York Times, in speaking of what the Grangers of the Western States have done, says: "They have broken the power and combinations of the pork packers. They started out the past fall as they did the fall before, to buy pork at about three dollars, expecting again to get double the price when they sold, as they did last year. But the Grangers were too sharp for them this time. They said rather than sell at these low figures, we will pack our own pork. So all over the West the Grangers combined determined to pack unless they could get what their pork was honestly worth. Pork came in slow, not fast enough to meet the demands of the packers. The Grangers went to putting up their own pork. The packers became alarmed and thought they had better make smaller profits, and so commenced offering higher prices. The Grangers were firm, resolute, and insisted on fair prices, and the packers were compelled to pay them."

The farmers have triumphed over the combinations to wrong them. Millions more of dollars have been saved to them than otherwise would have been. They needed the money and have got it. They were entitled to it and got only what was their due. The farmers can combine on a larger and grander scale than any other class, when it becomes necessary."

A SOUND POSITION.—D. W. Adams, Master of the National Grange, says: "The history of the world and its present condition has established this fact—that all countries are poor which export crude, raw material, and import the manufactured article; and the tendency of the people is all the time toward the condition of dependence. To this there have been no exceptions, and we would do well to heed the warning and escape the doom." Where the great industries, agriculture and manufacture, are equally developed, the general prosperity is assured."

REMEMBER when you are wanting a committee in your Grange that will act, select ladies. They never become disheartened, they investigate thoroughly and do not fear to make a correct report.

San Benito County.

EDITORS PRESS.—It is not so easy to keep as it was to make the promise to give you an account of my visit to Hollister. So many matters of interest present themselves and merit attention in my endeavor to keep my word with you, that I hardly know where to begin, and fear that I shall never be able to stop within reasonable limits.

By invitation to make for Hollister Grange the address at their anniversary celebration on Friday of last week, I left the city on the afternoon of the day before, to make the trip through San Mateo, Santa Clara and San Benito counties, and arrived just at nightfall at the new city of Hollister, but accepting the hospitality of the treasurer of the Grange, Dr. Flint, I went with him a few miles thence to his delightful home at the edge of the foothills. It never has been agreeable to me to remain in a town or small city after night, and my visit to Dr. Flint's delightful home has confirmed me in the belief that it is better by far to get on a farm even for a single night than to go to any hotel.

I wish I could have space to tell you of all the beauties of the doctor's fine place, the charms of his full handed hospitality, and how well he employs the wealth with which he has been so abundantly blessed. An attempt to do so would render me too prolix, and wicked as I am to think of such a thing in this connection, I am reminded of a time in my boyhood days when with other scamps I took away the tail-board to an ash cart which belonged to a pretense old man, to bear him swear when he discovered the loss of his load. He did not swear when he found his load was gone, but with tearful eyes looked at us and said: "Boys, 'tain't no use to swear, I can't do justice to the subject."

Every man who becomes wealthy does not deserve our trust or merit our esteem; on the contrary the opposite is generally the fact; but where, as in this instance, a rich man is so true to himself as to remain "God's noblest work—an honest man," without pretensions to be better than others, popular, kind and considerate of those about him, remaining a Christian gentleman under the temptations which beset those who wield the power of and receive the homage accorded to wealth, he may be relied upon, and it is right that he should be mentioned and held in high esteem.

On the morning of the anniversary we arrived at the pino grove and there met the Grange from Hollister with their friends, the unfortunate people who could not join us because of their not being farmers, but to whom was extended the hand of welcome, to aid in celebrating the Granger's festival. A goodly company had assembled and rapidly increased by new arrivals from town until when the exercises commenced a crowd was there which reminded me of the old-fashioned camp meetings, and when my time to talk arrived, I hardly dared accept the position accorded me. Kind looks and smiles of encouragement, however, helped me on, and although I lost my notes and forgot the line I had settled upon in which to make my address, I am pleased to believe that the invitation extended to me was not regretted by my brother Patrons.

After the exercises the field sports of the day commenced with a successful "turkey hunt" and "chase for chicken fixins." The feast I need not say was ample and excellent. That it was a Granger festival is enough to remember and thereby be assured that all good things were there. Only one thing was not a success; an individual whose business energy was greater than his judgment, had put up and supplied a stand of "goodies," eatables to sell. I am afraid his profits were not commensurate with his pains. The free table of the picnickers was so abundantly supplied and charmingly served by fair ladies that a man who had food for sale suffered by comparison.

The feast being concluded, an adjournment to town was in order, and a business meeting was held at the hall. In the evening a grand ball closed the festivities of the day, and altogether a more marked success than this Granger anniversary I have not witnessed, and I shall always regard the day I spent in San Benito county as one of the best and most agreeable I have ever known. I intended to speak at length of Hollister, the Grange No. 11, where "We all Work" is the motto; the crops and prospects; but it is so late in the week that your space is probably occupied, and if you accord me room at all it must be but little. Another week, if you desire it, I will begin where I now leave off and tell you all I saw and learned on my trip to Hollister.

A. W. T.

KEEPING OUT OF DEBT.—It has been ascertained, as one of the results of the Grange movement, in Iowa, that by a more strict economy and confining purchasing to needs, the Patrons have resorted less to bank and other sources to meet their harvest expenses. So say the money lenders of Iowa.

The Patron suggests that an excellent subject for discussion in the Granges just now is this: What can be done to best counteract the mischief created by the enemies of the Order by their constant misrepresentation of the objects, aims, doings and finances of the Patrons?

Store Keeper Wanted.

EDITORS PRESS.—By request of Paradise Grange, No. 5, P. of H., I desire to lay before your many readers a matter of great importance to the people of this part of Nevada. Ever since this part of the State has been settled, we have had to pay exorbitant prices for goods and sell our produce for just what speculators had a mind to pay. Now we propose to try and see if we cannot do better. We mean business in our Grange, and what we want is to get some one who has capital enough to come into this section and open a good Grange store, also to establish a grain market.

I will give the reader an idea of the resources of our valley and surrounding country. There are about 300 people in this valley, and 200 more east and west of it, who would do all of their trading here, if there were a good store here. There are about 15,000 acres in cultivation in the valley and several thousand acres east of it sown in grain. There are about 20,000 cattle and about the same number of sheep in this valley and the surrounding hills. There was raised last year 400,000 bushels of wheat and barley in this valley. It is all sold and consumed, and from this time until threshing, which will be about the middle of September, all of the flour and barley used here will have to be shipped from California. Grain sold last fall at our railroad town at two and a half cents per pound, and is now worth three and a half, a clear profit of one cent per pound to the buyer. I have lived in this valley ten years, and there never has been a full supply of grain raised any year. Any one can see by the above that there is a good opening for some one to go into the grain market here. A good store situated in this valley would be able to sell \$100,000 worth of goods each year, and a good part of the trade would be cash down. There are five Granges in this part of the State, with a membership of about 250, and there will be other Granges organized this summer and fall. A Grange store would get all of this custom and a great deal more. We will pledge our custom to any one who will come and establish a good store and sell us supplies at a good fair profit.

Paradise Grange has formed a joint stock company and are now building a Grange hall and store house. The building is sixty feet long by twenty-four feet wide, two stories high, and will be a good building when done. We will rent the store house to any one who may want to put up a store. Any one desiring more information on the subject can obtain it by writing to the undersigned. B. F. RILEY. Paradise valley, Nev., May 12, 1875.

A Horrible Crime and Tardy Justice.

The Secretary of Carson Valley Grange, No. 3, sends us an account of the circumstances attending the murder of Bro. John Ledgway, at Carson Valley on the night of March 30th. On the preceding day he had worked on his farm putting in his grain, and in the morning his cabin was discovered burned to the ground, and among the ruins his body was found burned almost to a cinder.

No clue to the crime has yet been discovered. Carson Valley Grange, of which the murdered man was a member, passed resolutions at a recent meeting condemning in strong terms the dilatoriness of the county commissioners in not offering a reward at their last meeting sufficient to induce the unearthing of so cold blooded a crime, and among the resolutions passed on this occasion was one declaring that they "will leave no stone unturned, but use all legitimate exertions to the apprehension and conviction of the murderer of murderers."

Resolutions were also passed commendatory of Brother Ledgway as "an intellectual Patron, one who loved the Order for its social, beautiful and God-given principles, and not from any pecuniary gain to be derived therefrom."

In Memoriam.

EDITORS PRESS:—The following resolutions were adopted at the last meeting of Lodi Grange:

WHEREAS, On the 17th inst., the Great Master of the Universe removed from our fraternal circle EUGENE F. KEAGLE, and

WHEREAS, We, the members of Lodi Grange, are desirous of testifying our respect for the deceased and expressing our sympathy with his bereaved relatives and friends; Therefore,

Resolved, In this dispensation of His Providence we lose an esteemed member of the Order and the community a worthy citizen.

Resolved, That with our hearts full of sorrow for the untimely loss of our brother, we offer our heartfelt sympathies to his widowed mother and relations, to whom his loss will be a deep sorrow. May the all-wise Providence comfort and support them in their affliction.

Resolved, That these resolutions be entered upon the minutes of the Grange, a copy handed to the family of deceased, and the Worthy Secretary be instructed to send a copy to the RURAL PRESS.

J. CRESSMAN,
N. P. SABIN, } Com.
A. W. GOVE, }

Mrs. NELLIE CROUCH, Sec'y.
Lodi, May 21st, 1875.

SUPPORT THE GRANGE PAPERS.—There is no better sign of a prosperous Grange than to find that a large majority of its members are subscribers to newspapers devoted to the Order.

THE GRANGERS.—A New York correspondent writes us: "The petulant antipathy of the commercial classes in this vicinity towards this Grange movement is intensely bitter. They prefer dead politics, with all their current enormities, rather than any advance towards aiding the industries of the country through outside organizations. The capital of the country has the two old parties so situated that it feels secure in having its way with them, and does not like to be interfered with by anything new."

The Age ventures the prediction after another year it will be less difficult to make them understand there is a West and some Grangers among its inhabitants, than it is now. About one more general election and they will begin to find out that sharpers, shavers and monopolists don't own everything both East and West.—*Industrial Age.*

General News Items.

The following portion of the programme for the celebration of the Centennial of our Independence has already been perfected: President of the day, the President of the United States; Orators, Charles Francis Adams of Massachusetts, and Lucius Q. C. Lamar, of Mississippi; Poet, H. W. Longfellow, of Massachusetts; Reader of the Declaration of Independence, Ralph Waldo Emerson, of Massachusetts; Grand Marshal, General W. T. Sherman; Master of Ceremonies, General Jos. E. Johnston.

The seat for Tipperary has been awarded to Moore, opponent of the late John Mitchel, on the ground that the latter was not entitled to an election, as he had forfeited his allegiance to the crown.

JEREMIAH HAMILTON, the well-known colored speculator of Wall street, formerly a slave in the West Indies, is dead. He was said to be the richest colored man in the United States—worth a million dollars.

PEDESTRIANISM has found a new disciple in Daniel O'Leary, who has just finished, at Chicago, a walk of 500 miles, which he accomplished in the unparalleled time of 153 hours.

SENATOR Booth was serenaded at the Grand Hotel on Wednesday evening of last week and made a speech defining his political position.

PERMISSION has been granted the Southern Memorial Association to visit Arlington cemetery on June 1st, for the purpose of decorating the graves of the Confederate dead.

THE Virginia, Nevada, Chronicle has again changed hands. Mr. D. E. McCarthy, formerly of the San Francisco Chronicle, is now the sole proprietor.

ANOTHER explosion at the Hazard powder works. Three widows mourn the fatality which leaves their children fatherless.

FROUDE, JAMES ANTHONY has been talking up South Africa and now the Government sends him out there on public service.

THE Nevada Bank of San Francisco, an outgrowth of the *bonanza*, has been incorporated, with a capital of \$5,000,000.

By a great fire at Osceola, Pa., last week, 400 families were rendered homeless and an immense amount of property was destroyed.

A DECREE affirming freedom of discussion and of the press, within certain bounds, has been promulgated in Spain.

THE Centennial of the Mecklenburg Declaration of Independence was celebrated in Charlotte, N. C., on the 20th inst.

A PROMINENT lawyer of Boston has disappeared with \$160,000 held in trust by him for different parties.

LIEUTENANT J. L. CLEM, known as "The Little Drummer Boy of Chicamanga," was married to Miss Fitch, of Baltimore, last Monday.

A PLOT to arm the inmates of the Oregon State prison preparatory to a general escape has been frustrated.

GENERAL SHERMAN's *Memoirs*, just published, are creating a decided sensation in military circles.

THE Kern County Courier has changed hands, and the last issue presents an improved appearance.

No developments yet as to the perpetrator of the Amador County Treasury safe robbery.

J. C. LAMAR, the oldest resident of Yosemite, died in his cabin in the valley last Monday.

ARTICLES of incorporation of the San Francisco News company have been filed.

HILL BEACHY, an old pioneer and well known on this coast died, last Monday.

PAUL BORTON is to make another attempt to cross the English channel.

The business portion of Milton was burned last Thursday night.

Mrs. ABRAHAM LINCOLN has been committed to an insane asylum.

FOURTEEN lives were lost by the shipwreck in the Gulf of St. Lawrence.

THREE persons died of starvation in Co per county, Missouri, last week.

A \$50,000 fire in Minneapolis, Minnesota, last Monday.

THE Pennsylvania miners' strike is practically at an end.

THE San Francisco Fire Patrol is now ready for duty.

Two earthquakes in Santa Barbara last week. INCENDIARISM is afflicting Los Angeles.

Expeditions to Southern California.

It is understood that a portion of one division of Lieut. Wheeler's expedition will operate this year in Southern California, including portions of the coast range and the Sierra Nevada, extending westward as far as Death valley. In addition to general geographical pursuits by Lieut. Wheeler during the last five years, he has been directed to make a special examination and survey with a view to determine the practicability of diverting the water of the Colorado of the West for irrigating and other purposes. He will also send a small party to co-operate with a similar one sent out by the Smithsonian Institute to make archaeological researches and collections in Santa Catalina islands.

A party will also leave the University of California about the tenth of June on an exploring expedition to Yosemite, Death valley, Mt. Whitney, etc. Prof. Joseph Le Conte will head the party, which will consist of five or six of the Professors and students. The party will go on horseback, and will be provided with arms, pack horses and complete outfits. The collections made in the different departments will be sent to the University museum. The interior of the State, and especially the higher mountainous regions, possesses features of great interest to the scientific student. To geologists, perhaps no place in the United States offers greater inducements for research and examinations; and to collectors of objects of scientific interest there is a magnificent field open.

We are certain that many interesting facts will be developed by the parties about to start out, and trust that every facility will be offered to them by the people among whom they sojourn.

Industrial Items.

THE Los Angeles Express of the 20th says: The car for the prismoidal railway came down on the *Orizaba*. As soon as it reaches the city it will be tried on the section of track 200 feet long which has been prepared for the experiment, and if the test proves satisfactory the work will be begun at once on several prismoidal roads. No doubt is entertained but that the experiment will prove a success.

REPORTS are to the effect that the Carson river is lower than ever before at this season of the year. Even the wood drivers are in despair, and the mill men are fast joining them. The wood-drive comes down so slowly that great difficulty is apprehended in getting the full supply.

MESSRS. Clark & Baughman, a firm from Quincy, Illinois, will start an organ manufactory in this State, and although they made their sample instruments in Oakland, the Petaluma Argus thinks they will establish their manufactory permanently in Petaluma.

THE Alaska Commercial company of this city has entered into a contract with Cramp & Sons, whose works are on the Delaware river, by which the latter will construct a first-class thousand ton steamer for the Northern trade.

THE last Legislature of Arizona passed an act awarding a premium of \$5,000 for the first artesian water obtained at a greater depth than 500 feet, or \$3,000 for artesian water obtained at a less depth, in that Territory.

THE Democrat says Santa Rosa has now an opportunity to erect a woolen mill. H. Bale & Son, of Petersburg, Illinois, are willing to bring their mill to California and take one-third the capital stock.

THE Los Angeles papers think the oil wells of that section will some day rival those of Venango county, Pennsylvania, or at least yield a better profit to the producer.

THE Salt Lake Herald says that the amount which the English parties are to have for constructing the Portland, Dalles and Salt Lake railroad is \$28,000 per mile.

WORKMEN are engaged in putting machinery in place in the Petaluma woolen mill, and if no unlooked for event transpires, the factory will be in operation within two weeks.

THE machinery of the California broom factory has been moved to South Vallejo, and the manufacture of brooms will hereafter be conducted there.

VISALIA expects to have gas works; the illuminating property being derived from crude petroleum.

A Mrs. BLACKBURN, of Merced, is supplying the community with rag carpet woven by herself.

THE Petaluma cheese-factory will make 150 tons of cheese this year.

GRAIN prospects on the Gila, adjoining Florence, Arizona, are flattering. The present crop will surpass that of any former year. Harvesting has commenced.

A BUNCH of wheat has been shown the editor of the Hollister Advance, the straw of which measured five feet eight inches and the heads were full and well developed.

FIFTY bushels to the acre is what Mr. Watson, of San Benito county, expects to realize from his wheat crop.

THREE-QUARTERS of a crop is what is expected by the grain raisers of Los Angeles county.



Scottish Poetry.

The following true story, so graphically descriptive of a poor mother compelled to earn her bread upon the harvest field, is from the pen of an uneducated Scottish peasant, whose life-story seemed to be one long struggle with poverty and despair. It may prove of interest to those of our readers capable of understanding the pithy Doric in which it is written. It has not, to our knowledge, been previously published, though written some forty years ago:

I saw, upon the harvest field,
A mother and her child;
The mother looked disconsolate,
The bairnie never smited.

It did not laugh, as it was wont,
It neither stirred nor played,
But by the stock's warm sunny side
Lay still where it was laid.

The mother kissed it tenderly,
And wrapped it in her plaid,
And clappit it, and dantit it,
And stroked its curly head;

Then looked upon it mournfully,
And tears fell on its face,
As she fondled it and folded it,
In a farewell embrace.

But when she went, its faint complaint,
Her ear with anguish strook,
And back she turned, and came again,
To take a last fond look.

And closer yet she laid the sheaves
To shield it from the breeze,
And kneeled once more to comfort it
Upon her trembling knees.

And gladly she had watched it there,
But the hour of rest expired;
And she was called again to toil,
And slowly she retired.

Her children's bread depended on
The labors of her arm,
And there she left that child alone,
And hoped it safe from harm.

But every hand that which she laid
Behind her in the sheaf,
She cast on her sick infant's couch
A stealthy look of grief;

And when the long and weary rig
To the uttermost was shorn,
She hurried back, before the rest,
To soothe her latest horn.

But when she came where it was laid
She started back in fear,
To see its altered countenance,
And then again came near.

Its large, black eyes were firmly closed,
Its wee, white hands were chill,
And deep solemnity reposed
On its face so pale and still.

It neither answered to her voice,
Nor raised its drooping head, [sighed;
Nor breathed, nor smiled, nor sobbed, nor
Alas! the child was dead.

Its dying struggle was unseen,
Its infant soul had fled,
While its poor mother struggled hard
To earn her daily bread.

And those fond mothers who have seen
The greenest, loveliest leaf
Of their life's summer withering,
Will know that mother's grief.

Talk to Farmers.

[Written for the RURAL PRESS.]

When man was created and placed on the earth he was not set down in the midst of a city, with an office or store to attend to, but was put out of doors, in a large garden, farm or ranch, whatever you chose to call it; and there was no one with him but his wife. God could as easily have created a hundred thousand people at once, and placed them in a city, in houses with all the modern improvements, if it so pleased him; it would have been no greater display of power. But he placed man in a garden because that was his best and happiest position. He was there surrounded only by beautiful nature, with an occupation suited to his constitution and temperament, and no one to quarrel with him on political subjects or invite him into drinking saloons; and there were no other women to plague Eve with neighborhood gossip, or dressmakers or milliners to bother her. O! shades of Paradise! What fools our first parents were to be enticed into upsetting such a blissful state of things!

When I was a small girl, in a farmhouse away the other side of the Rocky Mountains, I often in the last of winter, would comfort myself by looking at an almanac. Outside everything might be covered with snow, the wind driving it into great drifts and shutting me into the house effectually; but I would consult the almanac and say to myself, "only a few more days of winter and then there will be all the

spring and summer and fall before I will be shut up again."

Now-a-days, whenever I find myself imprisoned in San Francisco it gives me a certain amount of comfort to look at a map. On the map San Francisco is represented as a mere dot about as big as a grain of sand, and the State of California covers considerable space. The city is only a speck in comparison with the large extent of green fields, sunny hill-sides, "murmuring brooks," and grand old forests. Only a dot of crowded disagreeableness, and all that extent of freedom, fresh air and nature! How thankful I am that God created the world Himself, instead of leaving it in the hands of some human beings who would have made an awful blunder of it!

There are some farmers who are discontented with their lot, perhaps with reason. If the locality is unhealthy, the soil poor and climate unfavorable, a farmer may well be discontented, and had better sell out as soon as possible; but don't go to the city to live; buy another ranch in another place and try it again, for in this wonderful country there are plenty of localities where nature has done her best in many ways, and where land, too, can be purchased at almost any price. But there are farmers' wives and daughters who are discontented without having any very good reason for it, and I would like to talk with them a little on the subject.

In the first place, if you have a home be thankful for that, if it is only a redwood cabin on five acres of sage brush. You are very much better off there than you would be in a city without any home at all.

Some farmers' wives complain of want of society. Well, a farmer's wife always has her husband. She sees him three times a day, at least, and every evening, and she had no business to marry him unless she had loved him well enough to prefer his society to that of any body else. While her husband is away, engaged in his out-door duties, she has, or ought to have, usually enough to do about home to keep her from being lonesome. There, I think I have disposed of that question, but perhaps I haven't.

If you are so unfortunate as not to be satisfied with your husband's society, that shows you to be in the wrong twice; first, as I said before, in marrying him, and second, in not trying to like him, and thereby making the best of a bad bargain. There is some good in every man if you only look for it. If your husband is cross, let him do all the scolding and have the last word every time, and see how that works; but at the same time try yourself to make everything as pleasant and comfortable as possible in the house; have his meals always on time and something nice, that you know he likes, for every meal. This method if faithfully carried out will, in course of time, tame even a bear, and some bears are quite nice after they are tamed.

Perhaps the husband is indifferent or unreasonable, or too close with regard to money matters. I have heard of such cases, and I have heard also of a woman appending too much money on dress and trinkets, but this last is not usually the case in the country. Whatever the wrongs are, it don't help the matter one bit to bluster about women's rights and talk aloudly that the neighbors can hear a quarter of a mile away; and of all indiscreet things a wife can do, the most foolish is, to tell her husband's faults to other people, for such a course only lowers the wife in the opinion of her listeners, and may do any amount of mischief.

If a woman wishes to disgust her husband effectually and make her case as bad as possible, let him find her sulking or crying every time he comes into the house. Let her go about with her hair twisted up in some hideous unbecoming fashion, and wear the worst looking old gown she has got, all day long, without any collar or frills, in fact make a perfect fright of herself, and then sigh and wonder why her husband does not love her as much as he did when they were first married.

Then there are complaints of overwork and poor health, which I suppose are unfortunately too well founded in many families. The farmer himself is often to blame for allowing his wife and daughters to overwork themselves, and he needs a lecture on the subject. I hope somebody will give it to him; but I believe most women could avoid at least half their ill health by letting medicine alone and exercising a little common sense in its place. For example, in the case of diet, many people drink tea and coffee, and eat pastry, white bread, and cake every day; and wonder why it is they are always having sick headaches, colds, sore throat, neuralgia and perhaps a multitude of other pains and aches and weaknesses; but then their mothers and grandmothers lived in this way and so do nearly all their neighbors, and very few people have sufficient originality to do otherwise than follow the multitude.

LORAIN.

CELESTIAL SYMPATHY.—As a Chinaman was passing the residence of a well-known citizen of Napa lately he noticed the lady of the house planting corn in the garden with her own fair hands. Overcoming a timidity of language natural to his race, he spoke as follows: "You velly good lady; you maahee workee." Husband no connec. Down town all the time, "chabbeel" and shaking his head till his eyes came to the same elevation as that acquired by the tail of the last calf impounded by the City Marshal, he departed, musing on the mutability of events that had granted his barbaric vision a glance into the workings of American civilization.

Women in War.

Those who imagine, says the *Pall Mall Gazette*, that women are only capable of distinguishing themselves in the arts of peace, and that, while displacing men in medicine and at the bar, they will be obliged to leave military pursuits to the coarser sex, should read the account of women who have served in the French army, published in a recent number of the *Revue Illustrée des Deux Mondes*. The most remarkable of these heroines was Therese Sutter, who, distinguished not more for bravery than for her freedom of speech, received from the First Consul the flattering nickname of "Sans-gene." The volubility and emphasis with which she "apostrophized" Napoleon at the siege of Toulon made such an impression on the great chief that he reminded her of it years afterward, when he was Emperor and she still a dragoon. Indeed, the ready command of invective for which Therese Sutter was famous throughout her career would seem to suggest that nature had intended her to wear the robe of the advocate rather than the uniform of the soldier. But she was as skillful in the use of the sword as in that of her own sharp tongue; for which reason, when the Committee of Public Safety published a decree banishing women from the armies of the Republic, a special exception was made in favor of Therese. After five years' service she retired from the army with a pension of two hundred francs; but the monotony of a peaceful existence told severely upon her. She became once more a dragoon, and from 1805 to 1810 served with her regiment in Spain. In 1810 she was taken prisoner by guerrillas and sent to Lisbon, whence she made her way back, through England to France. She was present at Waterloo, and did not retire for good until after the restoration.

Science and Faith.

Probably the purest and strongest forms of the religious sentiment are now to be found among those who have long since been content to let science have her way, and who have accepted all theological expressions as merely temporal descriptions of that which the mind could dimly see and the heart could feel without comprehending. Such persons are content to look upward, assured by their intellect that the realities are above, and not below; assured by the heart that its satisfactions, although indefinable, are still pure, and tend to better living, better thinking, and richer discovery.

Such religion will show itself in tender and brave care of humanity, in sympathy with all that is best in humanity, in serenity under burdens of labor, care and sorrow, and above all, in a quiet and strong confidence that the mystery which broods over life holds within itself wisdom and love which will shape the destinies of human souls to highest ends. Whatever form of science shall be arrayed against such manifestations of faith will have its labor for its pains. There cannot by any possibility be any discovery which will disprove the claims of religion, but there are infinite possibilities of discovery in the other direction. Ages before science was born, or any perfect statement of theism was possible, or Christianity was born, there were poets and prophets who pierced the heart of the secret and drew thence inspirations which have glorified human life for centuries. Such faith in God as came to expression in the life of Jesus will continue to work in human life, whether in one form or another, to beautify, to strengthen and conduct humanity to its destination.—*Liberal Christian*.

SOMETHING TO THINK OF.—There is food for thought in the story that is told of a lad, who for the first time accompanied his father to a public dinner. The waiter asked him: "What will you take to drink?" Hesitating for a moment, he replied: "I'll take what father takes." The answer reached his father's ear, and instantly the full responsibility of his position flashed upon him. Quicker than lightning various thoughts passed through his mind, and in a moment his decision was made; and in tones tremulous with emotion, and to the astonishment of those who were acquainted with him he said: "Waiter, I'll take water."

YOU CAN'T ALWAYS TELL.—It was a handsome looking outtage, and the passer-by would have said to himself that the angel of bliss and the dove of peace swung on the door-knobs and turned handspira through every room. And yet yesterday noon a man's voice was heard calling out, "Jane, oh! Jane—them pertaters he biled dry! Come in here, blast ye, come in!" And she was heard replying, "Git up'n take the kettle off, you old noodle-head, and don't blast me, or I'll break another rib for ye!"—*Detroit Free Press*.

A GREAT MISTAKE.—The grand mistake that young men make during the first ten years of their professional and business career is in idly waiting for their chance. They seem to forget, or they do not know, that during those ten years they enjoy the only leisure they will ever have. After ten years, in the natural course of things, they will be absorbingly busy. There will then be no time for reading, culture, or study.

LADY BURDETT COULTS certifies from personal knowledge that one Parisian milliner uses 40,000 humming birds every season, and she thinks that at such a rate the species will soon be extinct.

Blackmailing.

Some years ago, when novel reading formed a portion of our pastime, we remember to have read a novel by Reynolds, in which his principle villain Ned Cantow, was made to remark that a man was a fool to violate the law, when disposed to act the scoundrel, because he could be so much mesuer and keep within the law. There is something noble about the highwayman, or the burglar, or even the petty pick-pocket, when compared to that species of villain that floats in respectable society and keeps the law on his side. The lowest down of these is the blackmailer, and the lowest specimen of the blackmailer is the law-hunter—the man who examines your title papers, and finds that the property you have bought and paid for may be a technicality be wrested from you. It is not his; it never costs him a cent; but seeing that you have overlooked something, or that, perchance, the clerk has failed to record your deed in time, he seeks to buy this "flaw" for a mere nothing, in order to make you buy your own property of him. Human law can take no cognizance of such creatures, but if the devil don't catch them, he and his dominions may as well be abolished. We would trust the pickpocket a hundredfold quicker than one of this class—that is, where the law is silent, for some thieves, even, have a repugnance to a breach of trust—but the other class never do, except in cases where the law, or Mrs. Grundy, would notice it. These fellows attend church regularly, wear long faces, pay the highest price for pews, (always provided the price is to be published in the morning papers,) and have no charity for the thief who steals a loaf of bread, after a fast of three or four days, or for the girl whom want has driven into a life of shame—they smile contemptuously at all excuses for the violation of the law. If ever we have felt the desire to dip our hands in the blood of beings, created in the human form, it has been when crossed by this—the perfection of the devil's handiwork, the blackmailer; the fellow who attempts to get that which he knows rightfully belongs to another, through a technicality, or be "bought off."

The Wrongs of American Boys.

The *Chicago Tribune* says: The wrongs of women and negroes have monopolized public attention for many years. Serious as some of them are, or have been, the wrong of boys are as bad, if not worse. For a series of years the boys of America have been shut out, more and more completely with each year's advance, from the chance of learning a trade. The trade unions, with almost incredible blindness, have adopted rules which prevent the employment of any except a very limited number of apprentices. These rules forbid a master to employ an apprentice unless he employs a certain number of journeymen. In some trades, the proportion is one boy to twenty men. The few places left vacant by apprentices becoming journeymen are soon filled. Tens of thousands of boys are thus deprived of the opportunity to become reputable and self-supporting artisans. When they leave school and try to do something for themselves, they find the doors shut in their faces. Instead of becoming blacksmiths, silversmiths, carpenters, compositors, cabinetmakers, coachmakers, hatters, machinists, bakers, tanners, tinners, tailors, masons, shoemakers, stonecutters, plasterers, bricklayers, weavers, they have to become bootblacks, newsboys, errand boys, beggars, loafers, dead-beats, paupers, thieves, etc. No one of the occupations open to them offers any education, except in a sort of oncoming which is often a curse. If the members of the so-called liberal professions, the journalists, lawyers, teachers, doctors and ministers, should successfully combine to prevent the education of boys and young men in any of their specialties, there would be a universal howl of complaint. A far greater wrong is committed, however, when trade education is prevented. Many more boys are affected, for one thing, and most of them must go to work at once and labor constantly in order to live. If they do not do this and do not steal, they must starve.

BUSINESS KNOW-NOTHINGS.—The man who groans over his poverty without taking a step toward bettering his condition, is justly regarded as a good-for-nothing dunce. Had he sense, the more desperate his fortune the more energetic would be his attempts to improve them. What is true of individuals is true of classes. Business may be dull just now, but the laws of demand and supply exist, as they always have done. They may be operating somewhat peculiarly at present, but the long-headed merchant or manufacturer will study how they may be turned to his benefit, instead of croaking about actual difficulties and imagining others worse to come.—*Exchange*.

DIDN'T CARE FOR APPEARANCES.—The beau monde of Syracuse, New York, were surprised recently at seeing a richly dressed young lady wheeling a wheelbarrow, in which was a bundle of clothing, through the streets. On inquiry, the reason for such a queer occurrence was ascertained. The young lady, on being informed by her uncle regarding the pride of the bells of the city at day, agreed to wheel a bundle of clothing around Fayette park if he would give her a silk dress. The offer was accepted, and the young lady now has a silk dress, and has since received several proposals.

ORDER is heaven's first law, and it has never been repealed.

May a Woman Practice Law?

This question has been before the Philadelphia Court of Common Pleas in a very tangible form, and although a decision was lately rendered, the matter is by no means settled. In December, 1874, Miss Carrie S. Burnham, law student in the office of Damon Y. Kilgore of Philadelphia, presented herself before the Board of Legal Examiners as a candidate for admission to the bar, but on examination was refused on the ground that there was no precedent for the admission of a woman. In the following month a petition was presented by her counsel to the Court of Common Pleas, setting forth that the refusal of the Board injured her in her rights as a citizen, preventing her from earning a livelihood in her chosen profession, denying her the privilege of defending life and liberty, etc., and praying for a rule on the Board of Examiners to show cause why they should not examine her as other students of law are examined.

There appears to have been considerable delay in the case until Mr. Kilgore finally published a letter to the judges with the apparent effect of hastening their action, and the result was reached, as already stated. Judges Allison and Biddle denied the motion for a rule, and Judge Pierce dissented from the denial. To test the question further, Mr. Kilgore has brought a suit on behalf of Miss Burnham against the Board of Examiners for \$200,000 damages, which bids fair to be carried up to the Supreme Court of the United States.

CHANGE OF LITERARY LOVES.—Young people outgrow their first literary loves as they outgrow their love for bread and butter and sweetmeats, or their youthful fancies for Ellen on one side and Charley on the other. The fun which was so racy to the undeveloped humorist of seventeen, is coarse, or poor, or both, to the accomplished writer of seven-and-thirty. The paths that made young hearts swell, and dimmed bright eyes with tears, seems to the mature mind insufferably silly, mawkish and unnatural. The sensationalism that filled youthful phantasy with horrid shapes, that nerving youthful nerves, and frightened youthful heroes and heroines for days and nights after it was read, makes the man or woman recurring to the old pages laugh at their tin-kettle clatter and ghostly lanterns shining through scooped-out pumpkins.

The literary pope of the young is seldom the master of maturity; and indeed, were it not so, minds would neither grow nor change, which would be a bad lookout for the progress of humanity. As it is, even where the acquiring faculty is dead, the critical is still living, and the power to winnow the grain from the chaff, the power of appraising a literary achievement at its real value, is one that is made perfect by practice, and is not to be attained in youth.

AN AMUSING EXPERIMENT.—The *English Mechanic* says: "Cut (if you dare) four small white feather-points from your wife's best bonnet, and insert them into two small pith-balls, in imitation of wings. Fasten these butterflies to two fibres of raw silk of about a foot in length, and suspend the whole from the ceiling by means of another fibre. Excite the chimney of a moderator lamp with a silk handkerchief, give the glass to one of your young friends, and request him to persuade the butterflies to enter the tube. His ineffectual attempts to capture the butterflies will create much merriment. Breathe momentarily into the tube, or remove the electricity by some other unobserved method, and of course the feat is easily accomplished, while the astonishment of the beholders is intensified."

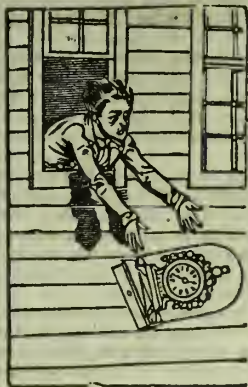
OLD NEWSPAPERS.—Many people take newspapers, but few preserve them; yet the most interesting reading imaginable is an old file of newspapers. It brings up the very age, with all its great bustle and every-day affairs, and marks its genius and its spirit more than the most labored description of the historian. Who can take a paper dated half a century ago, without the thought that almost every name there printed is now cut upon a tombstone at the head of an epitaph? It is easy to preserve newspapers and they will well repay the trouble; for, like wine, their value increases with their years.

SUBTERRANEAN TALK.—A Reese river miner temporarily residing in one of our San Francisco hotels, recently wrote: "Through the center of the house a shaft is sunk, and it contains a cage in which the guests ascend to and from the different levels. I live on the first level and Senator Farrell lives on the third level; but you have to go through several drifts and cross-cuts to get from the shaft to his slope, and he is talking of sinking a shaft down to my level. Maria has got 'stuck,' or as they say here, 'struck' after the cage, and employs the principal portion of her time in riding up and down the shaft."

"What's your business?" asked a judge of a prisoner at the bar. "Well, I s'pose you might call me a locksmith." "When did you last work at your trade?" "Last night; when I heard a call for the perlice, I made a bolt for the front door."

"A PARTIAN SHAFT."—Cook—"Now I'm a leavin' of yer, m'm, I may as well tell yer as the key o' the kitchen door fits your store-room!"

Don't half-starved horses have the hay fever?



A Novel Method of Killing Time.

YOUNG FOLKS' COLUMN.

"Little Bo-Peep" and the Dying Child.

I remember when I was nursing in a hospital once, there was a poor little boy about six years old dying of rheumatic fever. I was night nurse in the ward; and regularly, when the attack of pain came on, he used to scream out for me:

"Nurse, sing. It hurts me. Sing the hurt away."

So then I'd prop him upon my arm an' sing one song after another, from "Twinkle, Twinkle, Little Star" to "Black-Eyed Susan," till the paroxysm of pain was over, an' he'd quiet down again. I always knew when that was by his joinin' his voice in, too—such a weak pipe of a voice, poor lamb! but I was better glad to hear it than any music, for it told me the pain was gone for a while, an' I could lie him down to sleep again.

Poor little mite! I was singing "Little Bo-Peep" the night he died. I had him in my arms. He'd been sinking all day. I knew he couldn't last out another; an' though he tried to join in as usual, his voice went into a gasp an' broke. I'd been sometimes used to call the children in the ward my little sheep, an' when I came to the end of the verse—

Little Bo-Peep, she lost her sheep,
An' doesn't know where to find 'em;
Let them alone an' they'll come home,
An' bring their tails behind 'em—

He looked up in my face with a bit of a smile on his poor little drawn white month, and said: "Nurse, I'll know where to find her little sheep when he goes home. Will I be long going home now, nurse?"

Long! Ah, poor little lamb! ten minutes later an' he'd gone home.—*Cassell's Magazine.*

Little Folks' Dictionary.

A writer in the *School-Day Magazine* has gathered together the following dictionary words as defined by certain small people here and there.

Backbiter—A flea.
Bed-time—Shut-eye time.
Dust—Mud, with the juice squeezed out.
Fan—A thing to brush warm off with.
Fins—A fish's wings.
Ice—Water that stayed out in the cold and went to sleep.
Monkey—A very little boy with a tail.
Nest-egg—The egg that the old hen measures by to make new ones.
Pig—A hog's little boy.
Salt—What makes your potato taste bad when you don't put any on.
Snoring—Letting off sleep.
Snow—Rain all popped out white.
Stars—The moon's eggs.
Trunk (of an elephant)—His front tail.
Wakefulness—Eyes all the time coming unbuttoned.
A small catechism—Kittenchism.

HOW A YOUNG MOUSE WAS HELPED BY ITS FATHER.—We find the following in the *Reese River Reveille* of recent date: A poor little mouse, whose home is under the floor of the *Reveille* office, came out this morning to forage for his breakfast. Seeing some printing ink which had been spilled on the floor, he thought that would make a very good meal, and he went for it. After nibbling a little while, he became frightened at a noise made by those watching him, and started to run back to his hole; but the ink being of a sticky nature, he found his feet held fast to the floor and himself unable to move, whereupon he set up a doleful squeak. In a few moments along came a larger mouse, probably his father, who seemed to take in the situation at a glance, and at once commenced an attempt to release his diminutive relative. He stepped gingerly over the ink until he came to the little mouse, and laying hold of the back of its neck with his teeth, tugged away till he released it. The affair was witnessed by several persons, who were so interested in the novel sight that they offered no molestation to the animals.

A LITTLE GIRL'S ANSWER.—A lecturer, wishing to explain to a little girl the manner in which a lobster casts his shell when he has outgrown it, said: "What do you do when you have out-grown your clothes? You throw them aside, don't you?" "Oh, no!" replied the little one, "we let out the tucks." The lecturer confessed she had the advantage of him there.

GOOD HEALTH.

Typhoid Fever.

If you knock a man down, he may rise up again, but after two or three such knockings, he loses the power of rising. In ordinary fevers the system has a recuperative power, especially when the weight of the malady has been removed by suitable medicine; but when that recuperative power is lost, the system will not rise to health, although medicine has done all that was expected from it, and the patient dies. This inability may exist in all forms of disease. "Typhoid" means "like typhus," and typhus itself means "stupor," a kind of sleep or death. There is a growing tendency in all diseases "to take on the typhoid type," which simply means that the constitutions of the people are growing weaker and weaker, less and less capable of resisting the onsets of disease; hence a less amount of sickness kills now than formerly; and added to this, physicians of every grade have observed that their patients can't bear as large doses of medicine as heretofore; and the tendency is to give less and at longer intervals, and wait and see "what nature will do." The practical use to be made by the reader of these facts is to habituate himself to a greater watchfulness against the causes of all disease, and to a greater care of himself when he is sick; and this care should be observed in three main directions:

1. In recovering from any form of disease, keep abundantly and comfortably warm.
2. Studiously avoid taking cold.
3. Watch against over-exercise for several days or weeks.
4. Eat very moderately and at regular intervals, of plain, nourishing food.

If these four things are observed, relapses would be rare, and the patient would be saved. The most difficult of the four is to avoid eating too much; there is special danger of yielding to a craving for some particular kind of food. We knew an estimable lady who was happily recovering from an attack of typhoid fever, but she had such a strong desire for a sweet potato that it was allowed her; in less than an hour the symptoms became unfavorable and she died the next day.

The sleepiness or stupor arises from the fact that the brain, and thence the whole nervous system, is oppressed by the disease; is weighed down; can't act; goes to sleep and dies!—*Hall's Journal.*

A MAN DIES OF THE HICCUGHS.—One of the most singular cases of death that ever came within our province to mention, is that of Milton W. Blair, of Lonisa county, who died last week in a town in California, of the hiccoughs. Mr. Blair is an old merchant of Lonisa county, but has not been engaged in business for a number of years. He has been residing near Morning Sun since retiring from business. Last fall he was attacked with a fit of hiccoughing, which continued for some weeks, with scarcely any intermission. Becoming alarmed at the long continuance of the spell, Mr. Blair came to Burlington to consult with a doctor, who, after treating him awhile, declared he could give him no relief. From this city he proceeded to Chicago, and consulted the best medical authorities there, who did all in their power for him, but could not relieve him. By their advice he went to California, accompanied by his sister, thinking that the change of climate would help him; remaining in that State to the time of his death, hiccoughing almost continually, and having but few intervals of rest. The continued strain and distress wore him to a mere shadow of his former self, and last week his sister telegraphed to friends and relatives in this and Lonisa counties that he was dead, and she was bringing his remains on for burial.—*Burlington (Iowa) Hawkeye.*

WALKING exercise, as a means of health, is the most practical and universally available of all other forms; it promotes the activity of the circulation; it enlivens the spirits; exhilarates both body and brain, and, not least, it costs nothing. But to take a lively, active, brisk, cheerful walk, which infuses a new energy into the whole being, there should be a well-fitting shoe, and feet undeformed by corn or bunion, or other distortion; but, standing at any point on Broadway, and taking the first hundred persons over twenty years of age, for examination as to the condition of the feet, we may feel very sure of not finding half a dozen which are natural. It fairly makes one shiver to look at the exposed foot of any adult—ugly protuberances, bony excrescences, turned-in nails, piled-up toes, and skin all mottled and scarred by excessive binding or ill-fitting shoes, all inclining us to pity human nature, if not to despise it, for unnecessarily submitting to the numerous evils arising from the unnatural conditions referred to.

THE DURATION OF LIFE.—The following facts on the duration of life appear in a German paper: In ancient Rome, during the period between the years 200 and 300 A. D., the average duration of life among the upper classes was 30 years. In the present century, among the same classes of people, it amounts to 50 years. In the sixteenth century the mean duration of life in Geneva was 21.21 years, between 1814 and 1833 it was 40.68, and at the present time as many people live to 70 years of age as 300 years ago lived to the age of 43.

DOMESTIC ECONOMY.

The Art of Cooking—No. 2.

FRYING.—That part of cooking is not as difficult as it is generally believed, and properly fried objects are good and do not taste greasy. To fry requires care, and nothing fried will taste greasy if it has been dropped in fat properly heated and in enough of it to immerse the object. When an object tastes greasy, it is not because it has been fried in grease, but because there was not enough of it, or because it was not properly heated, for, if heated enough, it closes the pores of the object and carbonizes the exterior, so that it cannot absorb any.

ROASTING.—When an object is placed on the spit according to directions, remember that it cannot be basted too often. The time necessary for roasting a piece of meat, or anything else, depends as much upon the fire as upon the nature of the meat. Meat especially requires to be placed very near the fire at first, and then put back by degrees. There is nearly as much difference between roasted and baked meat as there is between broiled and fried meat. It is generally admitted here that English roast beef is so superior to American roast beef that it cannot be compared to it. It is not in the quality of the meat that the difference lies, but in the process of cooking. Meat cannot be roasted in an oven, be it in an ordinary or in a patented one. That peculiar flavor in roasted meat is produced by the air coming constantly in contact with the heated meat while revolving on the spit. Cold roast meat, when desired to be served warm, is enveloped in a buttered paper and placed on the spit just long enough to warm it.

SEASONING.—This is the most difficult part in the science of cooking. To season is not difficult, but to season properly is quite another thing. It is not only necessary to know well how to stew or roast a piece of meat or anything else, but to know how to season it, to be able to judge what quantity and what kind of spices can be used to season such or such a dish, to what extent all the spices used agree together, and what taste and flavor they will give to the object with which they are cooked; for, if not properly used, they may just as likely destroy the taste and flavor of the object as improve it. Some dishes require high and much seasoning, others just the contrary. With a good fire and a good spit it is not necessary to be a thorough cook to roast a piece well, but the cook is indispensable to mix the gravy or sauce with the proper seasonings.

SIMMERING.—Simmering differs from boiling only in the amount of heat allowed under the boiler, kettle, or pan. To simmer is to boil as gently and slowly as possible.

STEWING.—To stew properly it is necessary to have a moderate fire and even as possible. A brisk fire would cause much steam to evaporate, which steam is the flavor of the object stewed.—*The Housekeeper.*

CREAM PIE.—*Eds. Press:*—A subscriber in Pope valley makes an excellent cream pie which I can fully commend as a luxury that need not spoil. Place a pint of milk where it will heat. Then beat together one cup of white sugar, and half a cup of flour, with two eggs and stir it into the milk when it is nearly boiling; stir rapidly until it is cooked thoroughly; add essence of lemon and pour it on the crust, which should be baked before the cream is poured in. This will make two pies. If you wish it extra nice, make a frosting of the white of two eggs and three tablespoonfuls of sugar, spread this evenly over the pies and set them again in the oven and slightly brown. A very cheap and delicious pie. I begged the recipe for the *RURAL PRESS*, hoping thereby to find more of the same sort in other parts of my journey. C.

An emulsion of raw meat is advised as a nutritious form of diet for convalescents. Eight ounces of raw meat, with two and a half ounces each of sweet and bitter almonds and white sugar, are beaten together in a mortar until completely homogeneous, the almonds having first been blanched. The compound may be beaten up with egg or milk and water in any consistency.

TO CLARIFY DRIPPING.—Put the dripping into a basin; pour over it boiling water, in which a teaspoonful of salt has been dissolved, and keep stirring the whole to wash away the impurities, let it stand to cool, when the water and dirty sediment will settle at the bottom. Repeat this operation at least twice with fresh water. When cold, remove the dripping from the water and melt it into jars.

SHEEP'S TONGUES IN SAVORY JELLY.—Skin the tongues, lard them, and cook them until they are quite tender in good veal broth, or any white stock. Take out the tongues, boil down the liquor to a stiff, clear jelly, and pour enough of it over them to cover them. To be eaten cold.

SILVER CAKE.—Two and a half cups of flour; half a cup of butter; two cups of sugar; three-fourths of a cup of sweet milk; white of eight eggs; two teaspoonfuls of baking-powder.

CROQUETS.—Take any cold meat, mince it fine; put in an onion chopped fine. Moisten with gravy, make into balls with yolk of an egg and flour, and fry in hot fat.



A. T. DEWEY, W. B. EWER, G. H. STRONG, J. L. BOONE
PRINCIPAL EDITOR.....W. B. EWER, A. M.

OFFICE, No. 224 Sansome street, Southeast corner of California street, where friends and patrons are invited to our SCIENTIFIC PRESS, Patent Agency, Engraving and Printing establishment.

SUBSCRIPTIONS payable in advance.—For one year, \$4; six months, \$2.25; three months, \$1.25. Remittances by registered letters or P. O. orders at our risk.
ADVERTISING RATES.—1 week. 1 month. 3 months. 1 year
Per line.....25 .50 \$2.00 \$5.00
One-half inch.....\$1.00 \$3.00 \$7.50 24.00
One inch.....2.00 5.00 14.00 40.00

Large advertisements at favorable rates. Special or reading notices, legal advertisements, notices appearing in extraordinary type or in particular parts of the paper, inserted at special rates.

No Quack Advertisements Inserted in these columns.

GET UP CLUBS FOR THE RURAL PRESS.

OLD SUBSCRIBERS and other reliable persons are authorized to get up clubs of five or more subscribers for this paper at \$3 per annum for each name. Our terms for all subscribers are cash in advance. Postage will be prepaid by us after January 1st, 1874. The papers will be addressed singly to each individual. Regular subscription price \$4. Sample copies free. Let those who will work for the Rural Press in mind that they will confer a lasting benefit on new subscribers, besides improving their own talents by business practice. Try your hand and report at once. We offer all a chance. You do not know what can be done till you try it.

SAN FRANCISCO:

Saturday, May 29, 1875.

TABLE OF CONTENTS.

GENERAL EDITORIALS.—The Sweepstake Single Gear Header; How to Destroy Gophers; Trial Trip of the "James M. Donahue"; Anti-Monopoly Association, 353. "The Merry Month of May"; Our Vegetable Wants; Weather and Money; The Coming Exhibition; Irrigation on the San Joaquin, 360. Patents and Inventions, 364.

ILLUSTRATIONS.—Sweepstake Single Gear Header, 353. The Operation, 355. Darche's Improved Fruit Jar; Economy of the Vegetable Kingdom, 361.

CORRESPONDENCE.—A Promising Town; Catching Moles; Pleasant Valley and Surroundings; A New Industry; From Panoche Valley; A Trip to Lake County; Hay Crops, 354.

POULTRY YARD.—Lice on Fowls, 354.
SHEEP AND WOOL.—Eastern Wool Markets; Sheep Raising, 355.

THE DAIRY.—Slaying Cows, 355.

USEFUL INFORMATION.—The Fahrenheit Thermometer; Foreign Talent as an Aid to Progress; How to Make Oil Lamps Safe; To Render Paper Opaque and Again Transparent, 355.

PATRONS OF HUSBANDRY.—Progress of the Patrons in California; New Granges; Meetings; Etc., 356-7.

HOME CIRCLE.—Scottish Poetry; Talk to Farmers; Celestial Sympathy; Women in War; Science and Faith; Something to Think of; You Can't Always Tell; A Great Mistake; Blackmailing; The Wrongs of American Boys; Business Know-Nothings; Didn't Care for Appearances, 358. May a Woman Practice Law? Change of Literary Loves; An Amusing Experiment; Old Newspapers; Subterranean Talk, 359.

YOUNG FOLKS' COLUMN.—"Little Bo-Peep" and the Dying Child; Little Folks' Dictionary; How a Young Mouse was Helped by its Father; A Little Girl's Answer, 359.

GOOD HEALTH.—Typhoid Fever; A Man Dies of the Hiccoughs; The Duration of Life, 359.

DOMESTIC ECONOMY.—The Art of Cooking; No. 2; Cream Pie; To Clarify Dripping; Sheep's Tongues in Savory Jelly; Silver Cake; Croquets, 359.

POPULAR LECTURES.—Economy of the Vegetable Kingdom, 361.

HORTICULTURE.—A Freak in the Flower World; A Large Cranberry Farm in Wisconsin, 361.

AGRICULTURAL NOTES from various counties in California, 364.

MISCELLANEOUS.—A Gun Manufactured in an Hour; The Planet Uranus; Fish Culture and Protection; Music from Gas Jets, 354. Green Bronze on Iron; Liquid Parchment; Making Brittle Gold Strong, 355. Industrial Items; General News Items, 357. Boys' and Girls' Aid Society; Agricultural Items, 364.

"The Merry Month of May."

The month which is now drawing to a close has been indeed a merry one to the farmers of California. Its cheering influence on the season's products has been very remarkable. At its advent the agricultural outlook was discouraging in the extreme, but it leaves us with a guarantee of a fair yield of nearly all our crops. Besides these substantial blessings that May has brought in its train it has given us a full measure of most enjoyable weather, and the people of city and country have co-operated most heartily with the fair visitor in making a gay and happy season of it. All sorts of organizations have had their customary picnics or excursions, and innumerable occasions of a like character, but on a more moderate scale, have been enjoyed by families, neighborhoods and select circles of friends; and romantic love, "whose month was ever May," has no doubt slain his thousands and tens of thousands. May we have many more such Mays.

ON FILE.—"Pou Droppings," E. E. A.; "In Memoriam, Nettie Hamilton;" "San Marcus," A. T. F.

Our Vegetable Wants.

After all that has been said, and said truly about the great abundance of vegetables in our markets, their large size and fine appearance, their long continued season, etc., it may seem ungrateful, unreasonable and, worse than all, unappreciative of California's products, to intimate that anything further is wanted in this line. Nevertheless, with the fear of these accusations before our eyes, and at the risk of being branded as a traitor in the horticultural camp, we declare that the supply in our vegetable market is not up to the wants of the community.

In the universal praise of California fruit, the claims of the fruit-growers have not been properly estimated; but in connection with our vegetables it is but simple justice to give the credit exclusively to the soil. Where do we find indications of progressiveness in this direction? And are we not really "going backward" in vegetable culture? If we are not progressing we are certainly receding; for in every department of agriculture—live stock included—varieties and species degenerate if constant attention is not given to cultivating and breeding up to new points of excellence. This is particularly observable in vegetables. Where gardening is conducted on a proper basis new varieties are continually coming into favor, and what was supposed to be perfection at one period falls out of cultivation within a few years.

Such deteriorations we apprehend is now going on among our vegetables generally. Because the soil and climate are particularly favorable to their growth no particular effort is made toward their improvement; and if people have a fair variety of vegetables of large size, fresh from the ground at seasons when a large portion of the country is forced to abstain from such food, it seems to be supposed that we ought to be satisfied. But this is not enough. Our vegetable supply is too suggestive of fodder. Take, for instance, peas; we have them early and late and in great abundance—not particularly cheap, however—but there is a sad lack of variety. People who fully appreciate the delicacy of green peas will accept almost anything in this line at the opening of the season, taking it as a fore-runner of something better; but if they are compelled to go through the season on field peas, they will consume less, and derive less enjoyment from what they eat, than they would if they had the better kinds of garden peas coming in their course throughout the season. The later peas are the best, and we believe the same rule will apply to other vegetables and to fruits also.

Summer beans, too, are not what they should be in our market. As string beans they are passable, and nothing more; but when they are strung out through the whole summer it is a little too much of a good thing. Now, people who "know beans," know that the very best form in which this excellent vegetable is prepared for the table, is as "shelled beans," as they are termed, that is, they are allowed to hang on the vine until the beans have attained their full growth, and the pod turns yellow. At this stage of maturity they will "shell" as readily as well filled green peas, and are much richer and more palatable than the string bean at its best; and the most skillful of Yankee housewives cannot bring the dry, ripe bean to a condition that will compare with the shelled bean as a summer dish. Any kind of bean, taken at this stage of its growth and properly cooked, is good; but let us try and rid our system of vegetable-eating of the notion that because the ordinary kinds are good we should make no effort to procure the best.

This wholesome, delicious dish is quite excluded from the California bill of fare; yet to have it in abundance, and of superior quality, is a very simple, inexpensive matter. Still, it must be confessed that it calls for more attention than is usually given to our vegetable supply. To have shelled beans right they should be of uniform ripeness. They should be picked every day, for at this maturing period of their growth the change is very rapid, and what are just right to-day would be a trifle too ripe to-morrow.

There are two other vegetables, the parsnip and salsify or vegetable oyster, that are not what they should be with us; but in these instances the climate is mainly in fault, for neither of them is really fit to be eaten until it has undergone the process of freezing and thawing while in the ground. This is necessary to develop the peculiar flavors of these vegetables. This is quite practicable where the ground freezes to a depth of from two to three feet, and in such localities no one thinks of eating the parsnip or vegetable oyster until spring. In California we have not the requisite frost—lucky for us that we have not—but if more care were given to importing seed and to cultivation, only allowing them to attain a moderate growth, we might approximate, though we could not expect to fully reach, the fine flavor and rich aroma of these vegetables.

But the greatest need of "dredging up" in the vegetable family is in connection with potatoes. We do not question anyone's veracity, or their partiality even, when they declare they have eaten as good potatoes in California as they ever saw; but we would ask, is the standard California potato, such as is set

before the mass of the people at the restaurants, is sent by the grocer to private families, is this what it ought to be? Or will it compare with the average potato of other States? We are sorry that candor compels us to vote in the negative; and more sorry from the conviction that there is no good reason why our potato should not be of surpassing excellence.

We do not hope to see the potato of the period "educated up" to the requisite standard. New varieties are needed. The best potato that we can hope to grow will need replacing in about five years. As it is we really have no well defined varieties. It is a wise potato that knows its own father here.

One of the progressive movements recently made by the University College of Agriculture is the procuring of a large number—twenty-four we believe—varieties of potatoes, which are to be thoroughly tested on the University grounds. Mr. Stearns, under whose direction this new supply was procured, has acted very judiciously in this, and we shall expect good results from it. Similar efforts at improvement are needed in regard to other vegetables.

It is possible that in making known our wants in this quarter, we may become amenable to the charge of depreciating California horticulture; and the excessively anxious may fear that by speaking disparagingly of the flavor of California parsnips we will turn the tide of immigration, and depreciate the value of real estate, but we deny the charge of weakness in faith in the country, and do not apprehend any injury to it from anything that has been said in this connection.

Weather and Money.

Now in regard to California weather, it strikes us that it is getting to be too much a matter of dollars and cents. Not that we suppose the weather is liable, in the least, to be controlled by money influences. As old John Willet admonished his customers that "if they would let the moon alone, the moon would let them alone," so we say to all rings, monopolies, middlemen, etc., that if they will let the weather alone, the weather will let them alone.

But what we are "driving at" is the tendency in California to observe the weather only from a utilitarian point of view; only considering its effects on crops, as affecting mining operations, etc., in fact, we are too apt to let the weather's real charms pass unnoticed, while we are seriously considering the question—will it pay?

It is admitted that for a large portion of the year people need have no anxiety about the weather, its uniformity is so remarkable.

In most of the other States if people get up a picnic or excursion programme in summer they expect that it "will rain of course," and if they make preparations for a sleigh ride in winter they prudently "calculate" on the roads being blocked up with snow before their return. But here, in California, they know the weather will be all right, anyhow, so they "take no thought for the morrow."

But this is not doing our climate justice. It is like some dull, practical husband, who knows that everything will be right at home, that excellent wife of his is so perfectly reliable in every respect; though she, good soul, is somehow not entirely satisfied with this commendation. In order to minister to his finer sensibilities, and desiring to get a compliment of a more delicate nature, she occasionally puts a flower in her hair, places a gay ribbon about her neck, hangs some pretty but cheap jewelry in her ears, and thus puts in a modest claim for womanly attractiveness.

But all to no purpose. He don't admire the woman of the period. He can't afford to keep any bay window ornaments. His ambition is to have a wife up to the family newspaper standard.

Californians are in danger of doing the same injustice to their climate. Because they have no cause for anxiety for to-morrow they fail to appreciate the charms with which to-day decks itself.

IT WILL BE WELCOME.—The Rural New-Yorker Publishing Co. are about to issue a work on "Butter and Butter Making" by X. A. Willard, Esq., the Dairy Editor of that paper. It will be welcomed in all parts of the country. We expect it at an early date, and when received will give our readers due notice. We have heard that Mr. Willard intends to revisit California. He, too, will be welcomed by our dairymen.

THE CHASE PLAN OF ELEVATORS.—We have received a descriptive circular of the Chase Plan of Elevators, and would say to those who are interested in shipping wheat in bulk, or in elevators for other purposes, that it would perhaps be well for them to send to the Chase elevator company, Chicago, for a copy of this circular, which contains a series of drawings illustrative of this plan. Those who can call at our office can examine the same here.

DR. E. S. CARR goes East this week, to fulfill the duties of his appointment on the Board of Examination, at the Naval Academy, at Annapolis, Maryland. He will visit Washington, Philadelphia and other Eastern cities, where we bespeak for him a hearty welcome among men of science and education.

The Coming Exhibition.

As time draws on towards the date of opening the Tenth Industrial Exhibition of the Mechanics' Institute, we are glad to find our manufacturers alive to the importance of the event. The Secretary, Mr. Culver, reports a large number of applications for space already filed, and from present appearances the capacity of the pavilion will be taxed to its utmost to afford space for a proper display of the different articles. Up to the first of the week over 30,000 square feet had been applied for. In the list of noticeable applications is that of the managers of the Cornell watch factory, who propose to have their mechanics at work, that the public may see the whole process of making a watch. The Turbine windmill company will have one of their windmills in operation, the agitating power being furnished by a blower provided for the purpose. Mr. W. W. Hanson, proprietor of the Hope iron works, will exhibit a steam yacht. He makes a specialty of this branch of naval architecture. Mr. L. W. Coe has engaged space for an exhibition of the practical working of his air compressor and rock drill. The California furniture manufacturing company will make a fine display of house and office furniture. The California silk company will show silks and ribbons of their own manufacture. The Kimball manufacturing company have applied for a large space, in which to make a display of carriages, light wagons, cars, etc. Messrs. Roman & Co. intend making a show of their varied stock of school furniture. Clark & Co., a new firm from Illinois, who have commenced the manufacture of organs in Oakland, desire space for introducing their instruments to the notice of the public. The portion of the building reserved for mechanics is being rapidly taken up, and we expect to see the best display in that line ever attempted in San Francisco.

As by this time most everybody knows, the exhibition will open on the 17th of August next. Application for space should be made direct to J. H. Culver, Secretary, No. 27 Post street.

Irrigation on the San Joaquin.

The West Side Irrigation District.

An adjourned meeting of the West Side Land Owners' Canal Association was held at Grayson, on Thursday, May 20th, at McDonald's warehouse, for the purpose of hearing the reports of the committees appointed at a previous meeting. The Sacramento Record-Union contains a full report of this meeting, which we condense as follows:

The Committee on Constitution and By-Laws reported that after due consideration they had come to the conclusion that the adoption of any rules for the Association at the present time would be premature.

The Committee on Legislation reported the draft of a bill for presentation to the next Legislature, the preamble of which recites the organization of the Association of Land Owners between the San Joaquin on the east, the Sierra del Diablo Mountains on the west, Siskiyou Bay on the north, and Kern county on the south, for the construction of an irrigating canal from tide-water to Lake Tulare, and connecting with the Upper San Joaquin near the upper portion thereof.

Section 1 creates the territory described an irrigation district, with power to elect commissioners and officers; the district to embrace all lands in it capable of irrigation from the canal when completed.

Section 2 divides the district into five parts—Contra Costa and Alameda the first, San Joaquin county the second, Stanislaus the third, Merced the fourth, and all south of Merced county the fifth.

Section 3. After the location of the canal, the Commissioners to make a record of all the lands capable of irrigation from the canal, with list of owners; the record to be open for inspection.

Section 4 provides that the owners included therein (except owners and village lots) shall be electors to vote at all division or district meetings and elections of commissioners, treasurer, and for other business purposes.

Section 5 provides for an annual election on the first Tuesday in May, at which an elector shall be elected commissioner, to serve one year from the first Tuesday in June thereafter, and until a successor is qualified.

Sections 6, 7, 8, 9, 10 and 11 regulate the elections to be held under the Act, and the methods of transacting the business of the Board.

Section 12 gives the right to the Board of Commissioners to acquire lands, etc., under the Act of 1861, the same as railroads.

Section 13 gives the right to use the water of Tulare lake and the San Joaquin river for irrigation or navigation, and to supply the canal and works needed to secure the same for the purposes thereof and for securing their use on said canal or its branches and for securing full and adequate irrigation along the line of the canal and at its terminus, and for leakage and other purposes. "Reservoir outlets, dams or works of other kinds may be made, improved or constructed by said Association, on the said line, and the same kept up, improved and maintained, and if need be, the channel of said San Joaquin river may be improved in order to aid boats over the same to the up or source thereof, and means taken to secure and facilitate navigation on Lake Tulare, and to keep up and secure a full head of water therein, either for navigation or supply for said canal, or for other useful or useful purposes."

Section 14. The lands in the district subject to taxes for the canal to be forever entitled to equal privileges of irrigation from the canal, without payment or assessment therefor, after it is finished, and the right to irrigate shall attach to and pass with the title of the land, and be inseparable therefrom.

The remainder of the sections relate to the issuing of bonds and the payment of debts incurred in the work. After considerable discussion by Messrs. Hubner, McDonald, Dean Hay, Hamilton, Gardiner and others, the report of the Committee was accepted, and then the matter was finally again referred to the Committee for perfection.

The Convention was in session on Thursday evening, and then adjourned until the next morning. On Friday morning the report of the Committee was adopted, and the following were elected Commissioners of the five districts named: First, A. O. Ransom; second, Martin Lamoreaux; third, J. H. McDonald; fourth, J. L. Crittenden; fifth, Green Majora. The Convention subsequently adjourned sine die.

POPULAR LECTURES.

Economy of the Vegetable Kingdom.

Fifteenth Lecture Delivered before the University of California College of Agriculture, on Tuesday, February 9th, by Prof. C. E. BESSEY.

(Reported and Illustrated for the RURAL PRESS.)

Improvement of Varieties.

When we consider plants and animals, we are apt to look upon them as existing as definite, and to a certain extent invariable species; but a critical examination shows them to us as varying with every varying circumstance.

In the ordinary agricultural and horticultural operations we have to deal with about 100 species of plants and sixteen species of animals, not including, of course, the many with which we have indirect relations, as for example the insects which destroy our crops, the vermin which attack our stores and the fungi which rot our wooden houses and barns.

I include only those which we grow voluntarily, and which give us the "products" of our farms and gardens, the trees which afford us lumber and fuel, and the wild shrub from which we gather it may be considerable quantities of berries, are left out. Here, then, we have 116 original species or forms, from which have been derived the animals and plants, bought, grown and sold by the farmer and gardener of to-day. These original forms, furnished by nature to man, were

The Crude Materials

Which he could modify, change and almost rebuild to supply his needs. Scarcely one out of the whole list of food plants but was originally almost inedible, and of the animals we have only to compare the Suffolk hog and the short-horn ox with their lean, lank progenitors, to see what necessity there was for an improvement upon the original wild species. I will select a few of the most prominent from my list. First the plants: The cabbage in its wild state was a leafy, long-stemmed plant, growing no head and furnishing only a small amount of coarse food. Now, under cultivation, that one poor form has developed into five or six species, each of which has again developed further into many varieties. Taking up one of the seed catalogues, I find sixty-nine varieties of the cabbage. They may be tabulated as follows: [See Figs. 1, 2, 3, 4 and 5.]

1. Sub-species *Accephala*, Kale or Boricole, eight varieties. 2. Sub-species *Bullata*. 3. Sub-species *Capitata*, common cabbage, twenty-eight varieties. 4. Sub-species *Caules Rapo*, Kohl Rabi, four varieties. 5. Sub-species *Botrytis*, (a) Cauliflower, twelve varieties; (b) Broccoli, eleven varieties.

Each of these types may be considered as a center from which the varieties have diverged, as in the diagram.

Turn now to the apple, supposed by many to be a single species. By referring to Downing's Encyclopedia of Fruits and Flowers, I find that there are in America alone about 1800 varieties, differing enough from one another to be distinguishable. Examine the particulars of the variations and they will be found to relate to shape, size, color, texture and taste of fruit, with equal modifications of bark, stem, branch, twig and leaf and differences in habit, hardiness, keeping qualities and time of ripening. Here we have a dozen or more characters, all of which are variable. Now, each variation of these characters may give us a new variety, so that the number of possible distinct varieties is practically limitless, and the number given before as described in Downing may be considered as but the beginning of a long list which is destined to grow larger and larger as long as man shall continue to grow the apple.

The pear, I need but mention to call to your minds what changes have been wrought upon the original wild and almost inedible fruit—tomatoes, potatoes, wheat, oats and maize are all strong illustrations. The first, the tomato, has been grown in kitchen gardens for less than half a century, and yet we find in catalogues upwards of fifty varieties, exhibiting differences in fruit, stem, leaf, hardiness and time of ripening. In the potato, varieties have run away up into the hundreds. In 1870, I grew in the gardens of the Iowa College of Agriculture upwards of eighty varieties, all of which had characters sufficiently well marked to enable anyone to distinguish one from another. Mr. Grinnell, of Clayton, Iowa, has had on his list fully double that number, while Dr. Hamer, of New Castle, New York, advertises in his catalogue two hundred varieties, and there is no doubt that if all the kinds grown in different parts of the country could be gathered up and enumerated, the list would be more than doubled.

Let us now inquire what hearing this fact of the variability of species has upon agriculture and horticulture. As man has gone from one country to another he has naturally carried with him the plants and animals which he had been accustomed to have about him in his old home. But many a time, as he moved, the change of climate was so great that the old varieties could not be grown in the new locations. Sometimes the change was from a moist climate to a dry one, as in passing from the Atlantic States to the plains of the Mississippi

valley. Again, it was from a mild climate to one of great severity, as in passing from Europe to the east coast of America; or it was from one soil to another, as was the case in passing from the clays and sands of New England to the alluvial soil of the Mississippi valley.

What has been the Result?

Often after many failures to grow the more tender varieties, hardy ones appeared, so that now but little difficulty is found in growing them. In passing from the protected regions around the great lakes to Iowa and Nebraska many old varieties of apples had to be discarded. The old Rambo, the Rhode Island Greening, the Baldwin, the Bellflower, the Follawalter and many other old standbys were found to be tender, and the result was to be seen in the many trees killed down each winter.

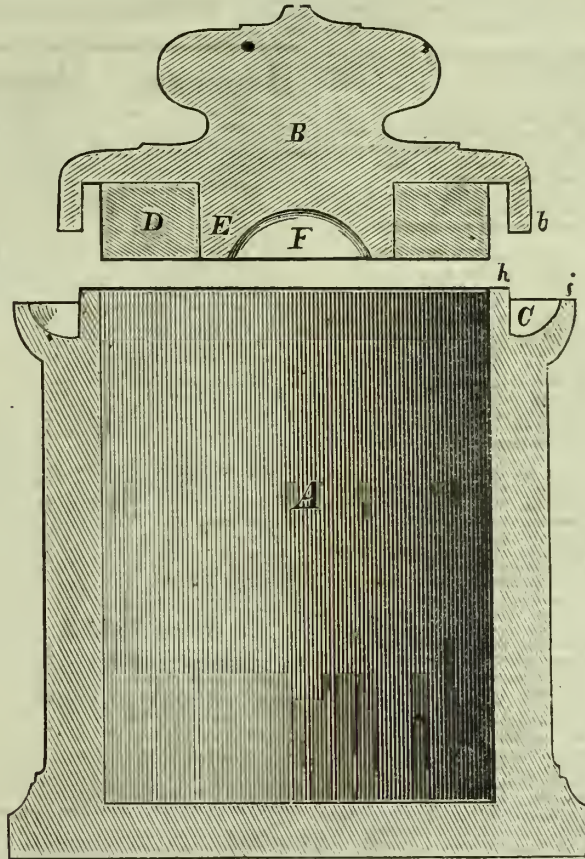
It may be said that in Iowa all the orchards first set out were killed because the varieties were too tender—and yet now it produces the

stances—but these are perhaps sufficient to show that through its variations a species naturally suited to one climate may become fitted to endure the inclemencies of another.

If these variations of the original occur—and occur so opportunely for man—the questions which interest us are: First, whether varieties arise independently of man's labors, or, are due to something which he has done and second, if man has anything to do with the production of varieties, what are the causes of such variations, which lie within his control, in other words,

How Can Man Produce Varieties?

Dr. Gray, in the *Naturalist* for February, 1874, puts the first inquiry in this form, "Were the fruits made for man, or did man make the fruits?" and in answer says: "Some fruits were given to man as they are and he has only gathered and consumed them. But these are only minor fruits and such as have lately come within the reach of civilized man—or, are not



DARCHE'S IMPROVED FRUIT JAR.

finest apples east of the Rocky mountains. Another good illustration may be furnished by maize or Indian corn, which has produced varieties fitted to all the differences of climate found in the United States. The tall, rank-growing sorts are found in the Southern States, where the summers are long enough to ripen the great mass of vegetable matter; but in New England and New York, where the summers are short, the small, eight-rowed, flinty kinds are grown. How is it that throughout all ex-

thought worth his trouble; huckleberries and cranberries, persimmons and paw-paws are examples taken from this country. Whether even such fruits have or have not been under a course of improvement irrespective of man is another question. Others have come to man full flavored, and nearly all that he has done has been to increase their size and abundance, or, extend their season; currants and gooseberries, raspberries and blackberries, chestnuts and above all strawberries, are of this class. But most of the esteemed or important fruits as well as the grains have not so much been



Fig. 1. Accephala.



Fig. 2. Bullata.



Fig. 3. Capitata.



Fig. 5. Botrytis.

cept the most northern of the United States we can grow the peach to perfection?

Look upon the map and note that Persia, the native country of the peach, lies mainly south of the center of the United States. Trace its isotherm of 70 degrees and you will find it

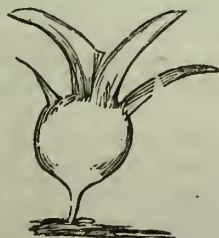


Fig. 4. Caulo Rapo.

to pass through Northern Africa, through Florida, Louisiana, Texas, Northern Mexico and the peninsula of Southern California—and yet from that warm climate the peach has spread, in its hardy varieties, northward into Europe and throughout all but the most northern of the United States and I have been informed on good authority that a German horticulturist, near Madison, Wisconsin, has recently grown peach seedlings which prove hardy even in that cold climate. I might go on multiplying in-

An Improved Fruit Jar.

As the season for canning and putting up fruit approaches, those who intend to put up their winter's supply begin to look around for the best jar for the purpose. We herewith illustrate an improvement in fruit jars which was recently patented by Pierre Darche, of this city, through the *Mining and Scientific Press* Patent Agency. This improvement relates more especially to the manner of constructing the cover and sealing the jar. The jar, A, it will be noticed, is provided with a gutter, C, around its upper rim, of which the inside wall, h, is the highest. The jar may be made of glass, earthenware or other suitable material. The cover, B, is made of glass and has a central portion, E, which extends downward into the mouth of the jar when the cover is in place. It also has an annular downward projecting rim, b, around it, which fits into the gutter, C, around the top of the jar. The projection, E, can be made round or square as desired; around it Mr. Darche secures a cork, D, which will fit down inside of the mouth of the jar; when this cover is forced down upon the jar the cork will fit in the mouth of the bottle inside of the wall, h, the annular rim, b, will enter the gutter, C. In the bottom of the gutter, C, Mr. Darche places a piece of wire so that it will pass entirely around the top of the jar; he then fills the gutter with wax so as to seal the joint. He thus provides two joints, an inside cork joint that prevents the wax from entering the jar, and an outside sealed joint which hermetically seals the jar. He thus prevents the disagreeable consequences of getting sealing wax in the fruit and provides an easy and cleanly method of unsealing and opening the jar, as by taking hold of the end of the wire which lies in the bottom of the gutter and pulling upon it the wax will be lifted out without trouble.

HORTICULTURE.

A Freak in the Flower World.

The flower of a Calla lily has been sent to the office of the RURAL PRESS as a curiosity. To all appearances, and as far as a careful investigation with good authorities goes, it is a freak of nature in the vegetable kingdom. It is kindly sent by W. T. Reilly, assistant assayer of the mint, and as is understood, this Calla is from a plant at his house, 1519 Sacramento street.

That the peculiarity of this flower may be fully understood, we will explain that the three principle parts of a flower, like the Calla, are called in botany the stem, the spathe and the spadix. The spadix is the yellow, granulated column that rises from the base of the floral envelope. This envelope, or white flower leaf, or bract, is technically called the spathe.

Now, according to all descriptions and engravings of numerous authorities consulted, and according to the experience of numerous persons of whom inquiry has been made, we find no account of any separate species of Calla which has

A Double Spathe.

Yet such is the case undoubtedly with the flower sent us. In the specimen under consideration there is but one spadix crowning the stem, but it has a definite and distinct spathe or white flower leaf, on each side of it, one curving to the right and the other to the left. Will not any florists who may have met with the same peculiarity in Callas, have sufficient interest in the subject to inform us if it is a common occurrence?

De Candolle merely hints at what may be a solution of the difficulty in his work on the Philosophy of Plants. In describing a spathe in general he says it may consist of one or more bracteae, or bracts, but he does not assert there that the Calla lily may have the two bracts. Still his assertion may give the true solution without making it necessary to call the double form a separate species. To students of botany it may be of interest to know that the Calla belongs, according to Lindley, to the order *Orontiaceae*, or *Orontiad*. Its full botanical name is

Calla Aethiopica,

Or Ethiopian Calla, and it was introduced into England from the Cape of Good Hope, in 1731, nearly one hundred and fifty years ago. It grows wild on the island of St. Helena.

May 25th, 1875.

J. W. A. W.

A Large Cranberry Farm in Wisconsin.

The *Baraboo Republic* mentions the existence at that place of an incorporated stock company, composed of Samuel Klauber, of Madison, and Terrel Thomas and G. A. Sumner, of Baraboo, with a capital of \$25,000. The company have purchased 1,415 acres of land in Jackson county, and intend making of it a cranberry farm. The most of the tract is a natural cranberry marsh. About seventy acres of the margin, together with an island within the marsh, are covered with pine timber. They propose erecting a building for the sorting, cleaning, and packing of berries, and leading to it will build a railway running diagonally through the tract, with a branch a leading to the distant portions. For the flooding, a number of flooding dams are to be provided, which will be supplied from a neighboring creek, under a law of the State which permits the use of the water of streams for agricultural purposes.

ITALIAN BEES WANTED.—A subscriber closes a business letter to the Press thus: "Could you or any one of your subscribers inform me where I can get good Italian bees, and what they will cost delivered in San Francisco? I may want twenty five stands." Parties possessing this information will please address—by Wells, Fargo & Co.'s Express—"Apis," Castroville, Monterey county.

JERSEY CATTLE—FRESH IMPORTATIONS.—Mr. George B. Bagley has recently received thirteen head of Jersey cows, imported from the island of Jersey, through Moses Ellis, of Framingham, Mass. These fine cows were all sold before arrival, to seven parties in different parts of the State. Mr. B. claims that these are some of the finest ever imported. We learn that he is to import more of the same stock.

DEWEY & CO.

American & Foreign Patent Agents,

OFFICE, 224 SANSOME STREET, S. F.

PATENTS obtained promptly; Caveats filed expeditiously; Patent reissues taken out; Assignments made and recorded in legal form; Copies of Patents and Assignments procured; Examinations of Patents made here and at Washington; Examinations made of Assignments recorded in Washington; Examinations ordered and reported by Telegraph; Rejected cases taken up and Patents obtained; Interferences Prosecuted; Opinions rendered regarding the validity of Patents and Assignments; every legitimate branch of Patent Agency Business promptly and thoroughly conducted.

Our intimate knowledge of the various inventions of this coast, and long practice in patent business, enable us to abundantly satisfy our patrons; and our success and business are constantly increasing. The shrewdest and most experienced Inventors are found among our most steadfast friends and patrons, who fully appreciate our advantages in bringing valuable inventions to the notice of the public through the columns of our widely circulated, first-class journals—thereby facilitating their introduction, sale and popularity.

Foreign Patents.

In addition to American Patents, we secure with the assistance of co-operative agents, claims in all foreign countries which grant Patents, including Great Britain, France, Belgium, Prussia, Austria, Victoria, Peru, Russia, Spain, British India, Saxony, British Columbia, Canada, Norway, Sweden, Mexico, Victoria, Brazil, Bavaria, Holland, Denmark, Italy, Portugal, Cuba, Roman States, Wurtemberg, New Zealand, New South Wales, Queensland, Tasmania, Brazil, New Grenada, Chile, Argentine Republic, AND EVERY COUNTRY IN THE WORLD where Patents are obtainable.

No models are required in European countries, but the drawings and specifications should be prepared with thoroughness, by able persons who are familiar with the requirements and changes of foreign patent laws—agents who are reliable and permanently established.

Our schedule prices for obtaining foreign patents, in all cases, will always be as low, and in some instances lower, than those of any other responsible agency.

We can and do get foreign patents for inventors in the Pacific States from two to six months (according to the location of the country) sooner than any other agents.

Home Counsel.

Our long experience in obtaining patents for inventors on this Coast has familiarized us with the character of most of the inventions already patented; hence we are frequently able to save our patrons the cost of a fruitless application by pointing them to the same thing already covered by a patent. We are always free to advise applicants of any knowledge we have of previous applications which will interfere with their obtaining a patent.

We invite the acquaintance of all parties connected with inventions and patent right business, believing that the mutual conference of legitimate business and professional men is mutual gain. Parties in doubt in regard to their rights as assignees of patents, or purchasers of patented articles, can often receive advice of importance to them from a short call at our office.

Remittances of money, made by individual inventors to the Government, sometimes miscarry, and it has repeatedly happened that applicants have not only lost their money but their inventions also, from this cause and consequent delay. We hold ourselves responsible for all fees entrusted to our agency.

The principal portion of the patent business of this coast has been done, and is still being done, through our agency. We are familiar with, and have full records, of all former cases, and can more directly judge of the value and patentability of inventions discovered here than any other agents.

Situated so remote from the seat of government, delays are even more dangerous to the inventors of the Pacific Coast than to applicants in the Eastern States. Valuable patents may be lost by the extra time consumed in transmitting specifications from Eastern agencies back to this coast for the signature of the inventor.

Confidential.

We take great pains to preserve secrecy in all confidential matters, and applicants for patents can rest assured that their communications and business transactions will be held strictly confidential by us. Circulars free.

Engravings.

We have superior artists in our own office, and all facilities for producing fine and satisfactory illustrations of inventions and machinery, for newspaper, book, circular and other printed illustrations, and are always ready to assist patrons in bringing their valuable discoveries into practical and profitable use.

DEWEY & CO.,

United States and Foreign Patent Agents, publishers Mining and Scientific Press and the Pacific Rural Press, 224 Sansome St., S. F.

Tenth Industrial Exhibition of the Mechanics' Institute, S. F., 1875.

PRELIMINARY ANNOUNCEMENT.

The Board of Managers of the Tenth Industrial Exhibition have the pleasure of announcing that an Industrial Exhibition will be held, under the auspices of the Mechanics' Institute, in the city of San Francisco, to be opened on Tuesday, the 17th of August, 1875, at 11 A. M., and to continue open at least one month thereafter.

In making this public announcement, the Managers desire that those who intend to exhibit should send in their applications for space as early as possible, so as to avoid the necessity of excluding, as has been the case heretofore, the many desirable exhibitors who are unusually tardy in making applications.

The forthcoming Industrial Exhibition will be the tenth held under the auspices of the Mechanics' Institute, and the Managers are justified in saying that it will undoubtedly surpass in completeness of detail and general arrangement any heretofore held.

The last Exhibition was attended by 700,000 visitors, attracted hither by the fame of these Industrial Fairs, and for the purpose of investigation, business and pleasure.

All the available exhibiting space was applied for several weeks before the day of opening, and the Managers were compelled to deny admission to many desirable exhibitors.

The Board of Managers desire particularly that the arts, the industries and natural products of the country should be well represented at the forthcoming exhibition, and no pains will be spared to make these classes of exhibits a special feature there.

The Exhibition will be held in the building constructed for that purpose in 1874, but it will be materially enlarged and improved in many details for the Exhibition of 1875.

The space under roof will exceed 180,000 square feet, or about four and a half acres, exclusive of the Horticultural Garden, which will occupy 24,500 square feet additional.

The location of the Exhibition Building, on Eighth street, between Market and Mission streets, cannot be surpassed for convenience and accessibility, and can be approached from every part of the city by means of the various lines of street railroads, any of which bring visitors within two blocks of the entrance gate.

The utmost care has been exercised in providing for ample ventilation and light, and during the evening the building is brilliantly illuminated by over 5,000 gas lights.

The promenade avenues are broad, and 3,000 seats are provided for the comfort of visitors, for whose convenience there is also an excellent restaurant, under the management of a first-class restaurateur.

Every afternoon and evening the best orchestra the city can supply will discourse excellent music under the direction of an accomplished leader.

The building is always well attended by visitors, and during the last Exhibition over 29,000 were daily admitted for a number of days, and under no similar circumstances can the manufacturer, the mechanic, the inventor, producer or business man so advantageously place himself before the people of the Pacific Coast.

Persons desiring to obtain information, or to make application for space, should address "Managers of Tenth Industrial Exhibition, San Francisco, California," or make personal application as below.

It is expected that the various transportation companies will convey goods intended in good faith for exhibition, at half the usual rates.

Exhibitors from abroad, if they have no agent or consignee in San Francisco, can consign goods and mark the same to the "Manager of the Tenth Industrial Exhibition, 17 Post street, San Francisco," and they will be stored, if they arrive before the day of opening, free of expense; but no charges or expenses for freight or forwarding, etc., will be paid by the managers.

In order to secure space, application should be made on or before July 20th, 1875.

Blanks will be furnished on application. Premiums will be awarded as follows, viz: 16 gold medals, 50 silver medals, Society Diplomas, Certificates of Merit and Special Premiums, as the Board may determine.

Blanks for space can be obtained at the Mechanics' Institute on application by letter or otherwise; and any information will be given, by applying to any member of the Board of Managers, as below:

A. S. HALLIDIE	113 Pine street.
JAMES C. PATRICK	122 Battery street.
HENRY L. DAVIS	421 California street.
D. E. HAYES	213 Fremont street.
ASA R. WALKER	Mechanics' Mill.
P. B. CORNWALL	Cor. Spear & Harrison streets.
CHAR. ELLIOT	516 California street.
GEORGE FAULRING	414 Clay street.
RICHARD SAVAGE	139 Fremont street.
W. P. STOUT	604 Merchant street.
J. H. MACDONALD	217 Spear street.
J. P. CURTIS	320 Jackson street.
R. B. WOODWARD	Woodward's Gardens.
JAMES SPIERS	311 Howard street.

To the Librarian of the Mechanics' Institute, or to J. H. CULVER, Secretary, 27 Post street, San Francisco.

Rules and Regulations of the Tenth Industrial Exhibition, Mechanics' Institute, S. F., 1875.

1. The Pavilion will be open for the reception of goods on Monday, August 2d. The exhibition will be open to the public on Tuesday, August 17th, at 11 o'clock A. M.

2. Applications for space must be made on or before July 20th, stating character of exhibit, amount and kind of space required—wall, table or floor. And, if cases, state length, width and height of case. Blanks will be furnished for this purpose, and a clerk will be in attendance at the Library of the Mechanics' Institute, every day from 12 to 1, and to 10 P. M.

3. All persons presenting articles for exhibition must have them registered by the Receiving Clerk, who will give a receipt for the same, which receipt must be presented when the articles are withdrawn, at the close of the Exhibition.

4. Judges will be appointed by the Board of Managers, immediately upon the opening of the Exhibition, to examine all articles presented, in accordance with Article III, and the Managers will award premiums on such articles as the judges shall declare are worthy, which will be delivered as soon as they can be prepared. Due notice will be given of the announcement of premiums.

5. The mornings of each day, until 10 o'clock, will be appropriated to the Judges, and no visitor will be admitted during the time thus appropriated, except at the special request of the Judges, or by permission of the Managers.

6. Articles intended for sale may be labeled accordingly, but cannot be removed until the close of the Exhibition, except by written permission of the Managers.

7. Steam power will be provided, so that machinery of all kinds may be seen in actual operation, and every facility possible will be given to exhibit working machinery to the best advantage.

8. The name of every article must be attached by the exhibitor to it.

9. Articles intended for exhibition must be entered and placed on exhibition on or before Saturday, August 21st.

10. Perishable articles will be received, or may be removed at any time during the exhibition, with the consent of the Managers.

11. The most effectual means will be taken, through the agency of the Police and otherwise, to guard and protect the property on exhibition; and it will be the purpose of the managers that all articles shall be returned to the owners without loss or injury. Still, all articles deposited will be at the risk of the owners.

12. In case of any misunderstanding, application may be made to the Managers, who will at all times be in attendance.

13. The Managers are desirous that articles should be presented early. Those from abroad, intended for exhibition, should be properly packed, and if not consigned to exhibitor's agent, must be marked, "MANAGERS OF TENTH INDUSTRIAL EXHIBITION, SAN FRANCISCO, CAL." All articles thus received, arriving too early, will be stored free of cost to the exhibitor, and the Managers will have them duly placed in proper position for exhibition. No freight charges will be paid by the Managers; but exhibitors are notified that arrangements to repay freight charges on evidence of goods exhibited.

Information will be furnished by addressing MANAGERS OF TENTH INDUSTRIAL EXHIBITION, SAN FRANCISCO, CAL.

BREEDERS' DIRECTORY.

PURCHASERS OF STOCK WILL FIND IN THIS DIRECTORY THE NAMES OF SOME OF THE MOST RELIABLE BREEDERS. OUR RATES.—Six lines or less inserted in this directory at 50 cts a line per month, payable quarterly.

CATTLE.

R. ASHBURNER, Baden Station, San Mateo Co., Cal., breeder of Short-horn cattle. Pure Bred Bulls for sale, from cows of choice milking strains.

J. BREWSTER, Galt Station, Sacramento Co., Cal., breeder of Short-Horn Cattle.

J. D. CARR, Gabilan, Monterey Co., Cal., breeder of Trotting Horses, Short-Horn Cattle, Thoroughbred Spanish Marino Sheep and Swine.

A. MAILLARD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.

W. L. OVERHISER, Stockton, San Joaquin Co., Cal., breeder of Short-Horn Cattle and Berkshire Swine.

PAGE BROTHERS, 304 Davis street, San Francisco, (or Cotate Ranch, near Petaluma, Sonoma Co.): Breeders of Short-Horns and their Grades.

STANTON & POWERS, Sacramento, Cal. Breeders of Jersey Heifers and Bull Calves at low rates. Address L. O. Powers, Sacramento, Cal.

MOSES WICK, Oroville, Butte Co., Cal., breeder of Short-Horn Cattle. Young bulls for sale.

SHEEP AND GOATS.

H. F. BUCKLEY, Hopeton, Cal. Thoroughbred also $\frac{1}{2}$ and $\frac{3}{4}$ Cotswold grade sheep.

MRS. ROBERT BLACOW, Centerville, near Niles Station, Alameda Co., Cal. Pure-Blooded French Merino Sheep for sale.

N. GILMORE, El Dorado, El Dorado Co., Cal., importer and breeder of Angora Goats.

LANDRUM & RODGERS, Watsonville, Santa Cruz County. Pure-Bred Angora Goats and Cotswold Sheep for sale.

SEVERANCE & PEET, Niles, Alameda Co., Cal., breeders of Thoroughbred Spanish Merino Sheep.

A. G. STONESIFER, Hill's Ferry, Stanislaus Co., Cal., breeder of Pure-Blooded French Merino Sheep.

L. U. SHIPPEE, Stockton, Cal. Importer and Breeder of Spanish Merino Sheep, Durham Cattle and Essex Swine.

POULTRY.

GEO. B. BAYLEY, Cor. 16th and Castro streets, Oakland, Cal. Imported Brahmas and other choice Fowls for sale.

ALBERT E. BURBANK, 43 and 44 California Market, San Francisco, importer and breeder of Fancy Fowls, Pigeons, Rabbits, etc.

M. EYRE, Napa. Bronze Turkeys, Emment Geese, Choice Fowls, Pigeons, Rabbits, Ferrets.

WILLIAM KNOWLES, Brooklyn, Alameda Co., Cal., has for sale Eggs for Hatching, carefully packed, from pure-bred Bronze Turkeys, at \$7.50 per dozen; Brown Leghorns at \$4.00 per dozen; Houdans, White Leghorns and Buff Cochins at \$3.00 per dozen; two dozen for \$5.00. Sent C. O. D. to any address.

Mrs. L. J. WATKINS, Santa Clara. Premium Fowls. White Leghorns, S. B. Hamburg, Game Bantams, and Aylesbury Ducks. Also, Eggs. 218-31

Live Stock Notices.

GABILAN HERD Spanish Merino Sheep.

I have just purchased of Mr. George Hammond, of Vermont, three car-loads of Spanish Merino Sheep, (335 head, Ewes and Bucks) which, with others that I purchased last Fall, (also direct from Vermont) makes my band of Thoroughbred Spanish Merinos about 650 head.

I am prepared to sell both Bucks and Ewes, of Pure Blooded Spanish Merinos—as good as can be had in the World—so says Mr. Hammond. Parties interested will please give me a call. I am ten miles from Salinas City, Gabilan P. O., Monterey county.

J. D. CARR.

N. B.—I have also Good Graded Bucks for sale, and can dispose of some Good Graded Ewes. J. D. C.

FOR SALE.

400 Pure Blood French Merino Rams,

On the Oristimba Ranch, six miles west of Hill's Ferry, Stanislaus County, Cal. All Rams delivered at the railroad, free of charge. Terms easy and prices liberal.

A. G. STONESEFER,



Pure Blooded French Merino Rams

For sale by MRS. ROBERT BLACOW, of Centerville, Alameda County, Cal., near Niles Station, on the Western and Southern Pacific Railroad.

These Sheep are guaranteed of pure descent, from the French Imperial Flock at Rambouillet, and are equal, if not superior, to any of this breed in size and quality of wool, and are proved to be the heaviest shearers in the world.

E. W. WOOLSEY,

BREEDER OF



Thoroughbred Spanish Merino Sheep,

From Vermont Premium Stock,

At Berkeley, Alameda County. Horse cars every half hour from Broadway Station, Oakland.

CITY OFFICE, 418 CALIFORNIA STREET, S. F.

JUST ARRIVED FROM THE EAST,

Fifty Head of

Choice Spanish Merino Ewes, Thoroughbred.

MAY BE SEEN AT SWEENEY'S STOCK YARDS, Cor. Tenth and Howard Streets.

These Ewes are in lamb, and of the best stock produced in Addison County, Vermont. The owner has also one Ram remarkable for fineness, who is half brother to Big Leg, recently sold by Messrs. Severance & Peet, of this State, for \$1,400. As an assurance that these Sheep are what I claim them to be, I refer parties interested to CHRISTY & WISE, No. 407 Front Street, San Francisco.

F. E. BENTON.

Thoroughbred Spanish Merinos FOR SALE.

60 ons and two-year old Thoroughbred Spanish Merino Rams, California bred, from Ewes imported from Vermont, and sired by Severance & Peet's Celebrated Ram "Fremont," and by their Ram "Green Mountain," which took the first premiums at the Bay District and State Fairs. Last shearing—35½ lbs.—years' growth.

Also, about 100 Ewe and Ram Lambs, all of "Green Mountain" Stock, bred this year.

B. F. WATKINS,
Santa Clara, Cal.

12 Short-Horn Bulls,



fat and sleek, thoroughbred, just from Kentucky, at SAXE'S Stables, 36 Ritch Street, between Folsom and Harrison, two blocks from Grand Hotel. Inquire at SAXE'S Stables, or Room 82 Rhea House. 3v9-3m

A NEW DISCOVERY

To Save Time and Labor.

The Magical Effect of

ENGWER'S PURE BORAX SOAP

Is wonderful. Washes without much rubbing. Every one knows the value of

AMMONIA and BORAX

For Washing Purposes;

This Borax Soap is principally composed of the combination of the two ingredients, so that it entirely does away with hard labor. A trial will convince any one of its superior qualities. Warranted to give satisfaction and not to injure the finest fabric. Ask your Grocer for

Engwer's Pure Borax Soap.

IF HE DOES NOT HAVE IT, ASK HIM TO GET IT.

GRANGER SOAP.

Once Used, Always Used.

Manufactured by

FALKINBURGH & CO.,

Oregon Street, near Front, San Francisco, Cal.

CHEESE VAT FOR SALE.

One of the Celebrated Rial's Cheese Vats—five hundred gallons. Hoops, etc., new, and in perfect order. At a bargain. Enquire at the Carpet and Furniture Warehouse of

JOHN C. BELL,

Miscellaneous Notices.

California Farmers Mutual
Fire Insurance Association.

Office, 6 Leidesdorff St., - San Francisco.

Directors:

A. WOLF, A. W. THOMPSON, I. C. STEELE,
I. G. GARDNER, J. C. MERRYFIELD, J. D. BLANCHARD,
G. P. KELLOGG, Treas.

Finance Committee:

I. G. GARDNER, J. C. MERRYFIELD, A. W. THOMPSON

Trustees:

J. M. HAMILTON, Lake Co. I. C. STEELE, San Mateo Co
J. C. MERRYFIELD, Solano Co. A. B. NALLEY, Sonoma Co
G. W. COLBY, Butte Co. O. S. ABBOTT, Santa Barbara Co
H. B. JOLLEY, Merced Co. A. W. THOMPSON, Sonoma Co
A. WOLF, San Joaquin Co. E. W. STEELE, San Diego Co
J. D. BLANCHARD, Pres't. W. H. BAXTER, Sec'y.

This association is organized for the purpose of affording the farmers of this State the means of safely insuring against loss by fire, at actual cost of insurance, without being connected with city risks. a322-tf

THE CELEBRATED

H. H. H.

HORSE MEDICINE

IS STILL AHEAD OF ALL OTHERS.

The Wholesale Druggists of San Francisco, give evidence of its appreciation throughout the State, by and rapidly increasing orders. We pledge it a cure for SPAVINS, WIND GALLS,

SWEENEY, SCRATCHES,

LAME AND STIFF JOINTS,

CALLONS, LUMPS,

AND ALL BLEMISHES,

SPRAINS OR BRUISES.

It is a household blessing and no family should be without a bottle in the house. For sale everywhere.

WILLIAMS & MOORE, Prop's.,

2578-6m Stockton, Cal

SEEDS. PLANTS.

OF EVERY VARIETY.

Fresh and reliable, such as experience and care only can select.

GRASS AND CLOVER SEEDS, KENTUCKY BLUE GRASS, HUNGARIAN, ORCHARD, ITALIAN RYE, RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL, CHOICE CALIFORNIA ALFALFA, WHITE CLOVER, RED CLOVER, ETC.

Also, RAMIE, JUTE AND TOBACCO SEEDS; together with a fine and complete collection of TREE SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGANTEA, PINUS INSIGNIS, ETC.

For Sale, wholesale or retail, by

B. F. WELLINGTON,

(Successor to E. E. Moore).

425 Washington St., San Francisco. 22v7-ly

FARM HANDS.

The Grangers' Scandinavian American Employment Office

Has been removed from 6 Leidesdorff to 608 Clay street, and Consolidated with the Pacific Coast Employment Office. This office is in constant communication with Grange Headquarters, and is the only one in the city conducted by members of the Order. Our facilities for furnishing MALE and FEMALE help of all kinds are unexcelled by any office in the city. Great care taken to select reliable help. Chinese Orders for Servants, in door and out, promptly filled.

In ordering help, he particular in describing work, wages, fare, etc., Real Estate and General Business Agency.

PHILIPS & FLIGGLE.

THE Employment Office of Talbot & Co. has no connection whatever with the Granges.

I. G. GARDNER.

Grangers' Business Association of California. Principal place of business, City and County of San Francisco.

Notice is hereby given, that at a meeting of the Board of Directors of the Grangers' Business Association of California, held on the 7th day of April, 1875, an assessment of ten per cent, two dollars and fifty cents per share, was levied upon the capital stock of the corporation, payable May 15th, 1875, to Wm. Vanderbilt, Secretary of the Grangers' Business Association, at his office, No. 6 Leidesdorff street, San Francisco, Cal.

A list of stock upon which this assessment shall remain unpaid on the day fixed, to wit: May 15th, 1875, will be delinquent, and advertised for sale at public auction, and unless payment is made before, will be sold on the 15th day of June, 1875, to pay the delinquent assessment, together with costs of advertising and expenses of sale.

WILLIAM VANDERBILT,
Secretary Grangers' Business Association of California.

Office—No. 6 Leidesdorff street, San Francisco, Cal.

FARMERS' UNION.

SUCCESSOR TO A. PFISTER & Co.,

Cor. Second and Santa Clara Sts., San Jose.

CAPITAL, \$100,000.

WM. ERSKINSON, PRESIDENT

H. E. HILLS, MANAGER

Directors.—Wm. Erskinson, L. F. Chipman, Horace Little, J. P. Dudley, David Campbell, James Singleton, Thomas E. Snel, C. T. Settle, E. A. Braley.

Will do a General Real Estate Business, also receive Deposits, on which such interest will be allowed as may be agreed upon, and make Loans upon approved security.

A GOOD BARGAIN.

\$500 will buy a good, pre-emption claim of 160 acres in Monterey County, with a good Dwelling House that cost more than that amount, situated one-half a mile from the Los Angeles Stage Road, and about the same distance from the line of the Southern Pacific Railroad. Apply to

MRS. ROWLANDSON,
On the Premises, San Antonio, Cal.

BRASS MOUNTED MICROSCOPES.

Just arrived, another lot of those Brass Mounted Microscopes. Just the thing to examine fungus in wheat, mites on trees, shrubs, etc. Sent free to any address on receipt of (\$1) one dollar greenbacks, postage stamps or silver.

Address, CHAS. P. KIMBALL,
513 Hayes Street, San Francisco, Cal.

DUNBAR'S WONDERFUL DISCOVERY.

BETHESDA MINERAL SPRING WATER
Of Waukesha, Wisconsin.

We claim Bethesda to be a specific in all cases of Diabetes Inflammation of the Kidneys, Inflammation of the Neck of the Bladder and Urthra, Inflammation of the Bladder, Dropsy, Gouty Swellings, Stoppage of Urine, Albumenuria, Ropy or Cloudy Urine, Brick Dust Deposit: Thick, Morbid, Bilious and Dark Appearing Urine, with Bone Dust Deposits; Burning Sensation with Sharp Pains when voiding Urine; Hemorrhage of the Kidneys, Pain in the Kidneys and Loins, Torpid Liver Indigestion, Calculus, and Female Weakness.

There is no remedial agent known to man that can cure the foregoing diseases as effectually as Bethesda Water. This fact has been demonstrated wherever the water has been used according to directions, which can be had at the General Agents' by application to them. The water is sweet and pleasant to the taste. It can be drank at all hours. Why should any one suffer while this Water is so easily obtained?

DUNBAR, HENDRY & LAVERY, Sole Agents for Pacific Coast,

fb27-cow-bp-3m

107 STOCKTON ST., SAN FRANCISCO.

The attention of Wool Growers is continually invited to the

Thoroughbred Stock Bred and Kept on the
MERINO RANCH,

Situated at Niles, Alameda County, Cal., only five minutes walk from the station, junction of San Jose and C. P. R. R. Parties desiring to visit our ranch can leave San Francisco at 3 o'clock p. m., and have an hour at the ranch, returning on Overland train at 6 p. m. Or coming out in morning, can return to city at 11 o'clock a. m. The proprietors make the

THOROUGHbred SPANISH MERINO SHEEP A SPECIALTY.

Believing them to be the BEST SHEEP IN THE WORLD, and are constantly receiving fresh importations from Addison County, Vermont.

Our flock are all Imported Sheep, and have no superiors in the United States. We always have on hand choice young RAMS and EWES, of all ages, for sale at Reasonable Prices, giving time, if required, to responsible parties. City Office—315 California Street, San Francisco.

SEVERANCE & PEET,

Importers and Breeders of Spanish Merino Sheep.

10v7-cow

LEVI, STRAUSS & CO.,

Patent Riveted

Clothing,

14 & 16 Battery St.,

San Francisco.



Patented May 12, 1873.

USE NO OTHER, AND INQUIRE FOR THESE
GOODS ONLY. eow-hp

DAVID WOERNER,



COOPER,

No. 104 and 112 Spear St., San Francisco.

Wine Casks, Tanks, Tubs, Pipes, Beer Barrels, etc., Manufactured at Short Notice and LOW RATES.

LUMBER for CASKS, etc., TANKS, etc. Steamed and Dried if required. eow-bp.

The National Gold Medal

WAS AWARDED TO

BRADLEY & RULOFSON

FOR THE

BEST PHOTOGRAPHS

IN THE

UNITED STATES,

AND THE

VIENNA MEDAL

FOR THE BEST IN THE WORLD.

No. 429 Montgomery Street,

eowbp

San Francisco, Cal.

FOR SALE

In the Riverside, New England and Santa Ana Counties, in the valley of the Santa Ana river, San Bernardino county, California, twenty thousand (20,000) acres of clean, rich, level, valley land, with an abundance of water for irrigation. There is no better land in the State for the orange and all other semi-tropical fruits, and no finer climate in the world. Inquire of W. T. SAYWARD, 420 Montgomery street, San Francisco; S. C. EVANS, Fort Wayne, Indiana; C. I. HUTCHINSON, 314 California street, San Francisco; L. UPSON, General Agent, Riverside, San Bernardino county, Cal.



This is a Sure Cure for Screw Worm, Scab and Foot Rot in Sheep. It also kills Ticks, Lice, and all Parasites that infest Sheep.

Prevents scratching and greatly improves the quality of the wool. One gallon of the Dip properly diluted with water will be sufficient to dip one hundred sheep, so that the cost of dipping is a mere trifle, and sheep owners will find that they are amply repaid by the improved health of their flocks.

This Dip is guaranteed to cure when used according to directions, and to be vastly superior to Corrosive Sublimates, Sulphur, Tobacco, and other remedies which have heretofore been used by farmers.

Circulars sent, post paid, upon application, giving full directions for its use, also certificates of prominent sheep growers who have used large quantities of the Dip, and pronounce it the most effective and reliable known Cure and Preventive of Scab and other kindred diseases in Sheep. mr13-bp

Office of Drain Pipe Works,

S. W. Corner Sacramento and
Montgomery Sts.,
S. F.

DRAINS

CONSTRUCTED

In any part of the
State, and

Work Warranted

E. T. MENOMY

Proprietor.

bp-cow-1 yr



Rowlands' Macassar Oil.

Preserves, strengthens, and beautifies the human hair; makes it grow thickly on bald places, and eradicates scurf and dandruff; has been in use all over the world for the last seventy-five years. ROWLANDS' ESSENCE OF YVRE has a greasy, grey hair to a permanent brown or black. Sold everywhere by all druggists, chemists, and patent medicine dealers. Ask for Rowlands' a ticles, of 20, Hatton Garden, London, and avoid imitations.

J. M. NEVILLE

G. H. BRYANT

NEVILLE & CO'S FACTORY

113 Clay and 114 Commercial Sts.,

SAN FRANCISCO.

BAGS of All Kinds,

TENTS, All Sizes and Descriptions.

HOSE for Hydraulic Use.

CANVAS, All Numbers.

TWINE for Sewing, Etc.

Geo. W. Chapin, Real Estate Agent; 434 Montgomery St., San Francisco, buys and sells Ranches in all parts of the State. City Real Estate exchanged for country property. MONEY LOANED. Post Office Box 1129

Grangers' Bank of California.

(Incorporated April 27th, 1874.)

Offices, 415 California street, San Francisco.

CAPITAL authorized, \$5,000,000, in 50,000 shares of \$100 each. Subscribed, \$2,568,700. (Number of shareholders, 1,571). Paid up, \$481,200.

DIRECTORS—J. V. WEBSTER, President; CALVIN J. CRESSEY, Vice-President; C. S. ABBOTT, J. P. CHESMAN, G. W. COLBY, J. H. HILL, J. LEWELLYN, THOS. MCCONNELL, J. C. MERRYFIELD, A. F. WILCOTT, F. J. WOODWARD.

OFFICERS—Managing Director, CALVIN J. CRESSEY; Cashier, ALEXANDER WATSON; Secretary, FRANK A. CRESSEY.

The bank was opened on the 1st of August, 1874, for the purpose of affording additional banking facilities to the producers of the State, and for the transaction of ordinary banking business.

CURRENT ACCOUNTS are opened and conducted in the usual way, and interest allowed on the minimum monthly balance at the rate of three per cent. per annum.

CERTIFICATES OF DEPOSIT are issued in sums of \$50 and upwards, payable on 30 days' notice of withdrawal, bearing interest at rates varying with the current rate of discount.

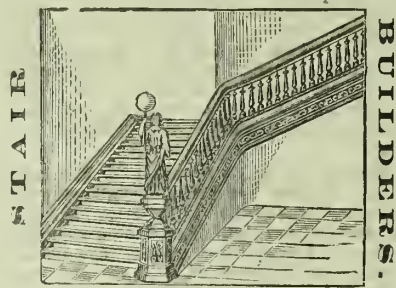
TERM DEPOSITS are received in gold, silver or currency, and interest allowed as follows, namely: Three months, six per cent. per annum; six months, seven per cent. per annum; one year, eight per cent. per annum.

COLLECTIONS are made throughout the State on the most favorable terms.

DISCOUNTS—The bank advances on real estate in the different counties, on merchandise and grain in warehouse, etc., with a fair margin, charging a uniform rate of one per cent. per month. Discount days, Tuesday and Friday.

ALEXANDER WATSON, Cashier.

SANBORN & BYRNES.



Mechanics' Mills, Mission Street,

Bet. First and Fremont, San Francisco. Orders from the country promptly attended to. All kinds of Stair Material furnished to order. Wood and Ivory Turners, Billiard Balls and Ten Pins, Fancy Newels and Balusters. 25v8-8m-bp

J. & P. N. HANNA,

IMPORTERS AND DEALERS IN

Grain, Wool, Ore and Bean Bags,
Flax, Cotton and Linen
Twines.

COTTON, DUCK, RAVENS AND DRILLS—33, 36, 40 and 45-inch Wide Duck; 8, 10, 12 and 15-Ounce Duck.

Ore Bags, Tents and Hose

MADE TO ORDER.

Nos. 308 and 310 DAVIS ST.,

San Francisco, Cal.

CARD.

EXCELSIOR FORCE PUMP

greatly improved. COPPER LINED

BRASS VALVES AND VALVE SEATS

every way equal to a BRASS

PUMP. PRICES reduced. Send

for Circular. BRITTON, HOL-

BROOK & CO., Agents.

CHARLES CLAYTON & CO.,

Commission Merchants

—IN—

GRAIN,

FLOUR

and WOOL,

N. E. COR. FRONT & CLAY STREETS,

SAN FRANCISCO.

LAND PLASTER.

(Sulphate of Lime.)

This fertilizer is especially well adapted to California lands and climate, and is destined to be used to immense advantage.

PRICES GREATLY REDUCED.

In bulk, \$10 per ton; in barrels or bags, \$12.50.

Golden Gate Plaster Mills.

LUCAS GESNER & CO.,

215 and 217 MAIN STREET, SAN FRANCISCO.

Dewey & Co. { 224 } Patent Ag'ts.
{ SANBORN ST }

AGRICULTURAL NOTES.

California.

BUTTE.

A WELCOME RAIN.—Oroville Mercury, 22d inst.: The welcome rain began to fall on Friday night last, about half-past seven, and continued until after ten. It was a heavy shower, and one that rejoiced all hearts. About town it changed the looks of things very much. The trees have put on a richer coloring, having lost their load of dust. But to the farmer it came a blessing from heaven. It will be of immense benefit to the late sown grain in assisting it in filling out. Since it came the air has been cool and bracing, giving promise of general good health.

COLUSA.

HARVESTING.—Sun, May 22: During this week the headers have been busy gathering in the golden grain; in fact, we hear of some who commenced on Friday of last week. Fields are turning out much better than was anticipated several weeks ago. This harvest is the earliest we remember to have seen in this valley.

BIG WHEAT.—From same: Jim Danley brought in this week from his farm near Stone Corral some heads of wheat measuring seven inches in length, and containing one hundred and twenty-four grains of well filled wheat.

CONTRA COSTA.

HEADING GRAIN.—Antioch Ledger, May 22: Several fields of wheat and barley are now being cut in this vicinity and next week work will commence in earnest. The crop will be very much better than was anticipated a few weeks since. The weather has been quite favorable, and it is now thought that there will be nearly as much grain harvested in this section as last year, although the late sown grain and that poorly plowed will yield scarcely anything.

KERN.

NO IRRIGATION NEEDED.—Courier, May 22: The cool weather has allowed the grain to ripen, without the necessity for irrigation, and all the fields within sight of the town are good to look at. Hay is moving both ways on the railroad, from Caliente to Delano, and our farmers are crowded with work.

LAKE.

AN AVERAGE YIELD.—Bee, May 20: The late rains and the past two weeks of cold, damp weather have done much toward maturing crops. The prospect is now that the late sown grain in this county will give an average yield. The early sown grain will be light.

LOS ANGELES.

IMPROVING.—Express, May 22: Crop reports from all directions in this county are improving. Sections that were given up as hopeless are beginning to come out very strong. A three-fourths crop of grapes is now confidently relied on. The acreage of grain planted this season exceeds that of last year sufficiently to bring our harvest up to the standard of a full year's crop, so that really there will be no diminution in our exportation this season.

CROPS ABOUT ANAHEIM.—Gazette, May 22: The grain harvest has already commenced, and from every portion of our valley comes the report of good yields—more than was expected. The crop of rye is considered good, and the corn crop will far exceed that of former years. The grape crop, for which the most fears were entertained for a fine crop of grapes. The fruit trees, the nipping of whose tender shoots made them present a dismal appearance, have recovered from their misfortune and are rapidly making good the damage they have suffered. The heavy fog, which timely came to make up our lack of moisture, have done much toward bringing out the backward grain, and there now seems to be no fear but that this section of Southern California will contribute a goodly portion toward filling the warehouses of her less fortunate neighbors.

MENDOCINO.

HEAVY RAIN.—Dispatch, 22d inst.: We had a refreshing rain on Friday afternoon last, which continued at intervals during the night. Though this comes too late to bring out many of our grain crops, it will be of incalculable benefit. We learn that in the mountains and valleys north of here they had more than double as much as we had in Ukiah valley, completely flooding the level lands and turning gulches into miniature rivers.

LARGE YIELD.—From same: We hear much talk about abort crops in this valley, and in some instances, where very bad farming has been done, failure may occur. But J. L. Berger informs us that his ranch will produce not less than sixty bushels of barley to the acre, and we hear similar reports from many other farmers.

MERCED.

THE COUNTY SAFE.—San Joaquin Valley Argus, 22d inst.: During the past week we rode over a considerable portion of the farming country to the eastward and southward of this place, and found the people in far better spirits in regard to their prospects than we had expected. We found that the farmers had cut large quantities of hay upon their volunteer fields, and that the winter sowed and summer fallowed fields bid fair to yield fair crops of wheat and barley. Some fields along Mariposa, Owens' and Miles' creeks will yield good aver-

age crops, though the generality will fall below the crop of last year. On the whole the county is safe.

MONTEREY.

A FAIR HARVEST EXPECTED.—Democrat, 22d inst.: The crops in this valley have improved very much during the past ten days, through the prevalence of cool weather and fogs. On the uplands, from Castroville to the Mtnas ranch, the prospects of a fair harvest are strengthening day by day, and it is now considered that the gross yield of the whole valley will be a full half crop.

NAPA.

CROP PROSPECTS.—A correspondent of the Register writes from Berryessa as follows: Thanks to the invigorating west and south winds, and a few cool, cloudy days, when the grain determined to grow if possible, took on new courage and strength and revived wonderfully, and at this present writing, I am happy to state, our crop prospects are fine. The frost and north wind proved no material damage, except to some few fields of fallowed grain. One field, which gave the finest promise of any in the valley, was most seriously injured by the frost, it being at that tender stage when the germ is beginning to develop. Many stalks were killed outright, and much of the remainder seriously injured. Haying has commenced in good earnest—weather good.

PLACER.

A FAIR SHOWING.—Auburn Herald, May 22: On a ride through the lower end of Placer county last Saturday, we were pleasantly surprised to find the grain crops looking as well as they do. To be sure they are not what may be called good, but they are far more promising than from reports we had expected to find them. The early grain looks very fair, and provided it fills well, and the indications are now that it will, it will make at least two-thirds of a crop. All the grain sown will make something, though the latest sown is in most places very light. Altogether we think it safe to estimate the grain crop of Placer at about three-fifths of an average, which will not fall far short of the yield last year. The recent cool weather has done wonders toward helping the grain to maturity. The hay harvest, which is now well advanced, is light, the recent showers and cool weather coming too late to materially affect this crop. In some cases the farmers have cut late sown grain for hay, though whether in doing so they did best, will depend on after circumstances. Whenever California produces a crop, Placer can be depended on for her share.

SANTA BARBARA.

CROPS IN THE GUADALUPE VALLEY.—From the Telegraph: There will be use for six or eight threshers in this valley this season and consequently there will be a demand for farm hands at good wages. Considerable corn, beans and potatoes have been planted, some of which are up five or six inches, and are looking well. The weather has been warm and dry for the past week, with a cool, stiff breeze from the ocean. The late sown grain is growing fast and looks well.

SANTA CRUZ.

FRUITS.—Sentinel, May 22: Apples, pears, apricots and plums have been injured by frost this season, and a short crop is the result in this vicinity. Peaches, grapes and berries are abundant.

SOLANO.

FARMERS IN GOOD HEART.—Vallejo Independent, May 22: From Superintendent Childs, who has visited the upper section of this county, we learn that the crop prospects have improved very much recently. Around Rio Vista the crops are very promising and it is thought they will be even better than they were last year. In the vicinity of Dixon and Vacaville there has been a marked improvement and a fair yield is assured if no scorching north wind comes to blight or shrivel the grain. The present cool and cloudy weather is very favorable, and the farmers are in good heart.

SONOMA.

UNACCOUNTABLE.—Petaluma Argus, May 22: J. A. Fowler, of Valley Ford, informs us that the crops in his neighborhood do not promise near so well as they did five or six weeks ago. Up to the beginning of April the prospect was very encouraging, but since then, notwithstanding the fact that the weather has been as favorable as usual, grass and grain have grown very slowly and the indications now are that the grain crop will be light. The slow growth and unsatisfactory condition noted by Mr. Fowler have been mentioned by others in this vicinity, and under the circumstances is quite unaccountable.

An apple blossom picked from a tree in Auburn, is mentioned by the Placer Argus, that contained sixteen leaves, presenting the appearance of a small rose, and very fragrant.

Wild pigeons are plentiful in Green valley and other places in Sonoma county, and are bothering farmers by pulling up corn and eating strawberries.

The Salt Lake Herald states that the fruit crop in Southern Utah is a failure.

There is no ground for apprehension from the crickets in Oregon.

The Sonoma grape crop is reported as remarkably promising.

Grasshoppers have appeared in the southern part of Utah.

PATENTS & INVENTIONS.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

(FROM OFFICIAL REPORTS FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.)

By Special Dispatch, Dated Washington, D. C., May 25th, 1875.

FOR WEEK ENDING MAY 11TH, 1875.

WAGON-BRAKE BLOCK.—George G. Buckland, Milton, Cal.

FEEDER FOR THRESHING MACHINES.—Byron Jackson, Woodland, Cal.

DISTRIBUTOR FOR FEEDING BELTS OF THRESHING MACHINES.—Byron Jackson, Woodland, Cal.

FOLDING OAR-LOCK.—Augustus W. Thornton, of Oakland, Cal., and Martin Vice, of S. F., Cal.

ROASTING APPARATUS.—Louis Dutertre, S. F., Cal.

PAVEMENT.—Louis Dutertre, S. F., Cal.

SINGLE RAIL RAILWAY CAR.—Chandler McWayne, Colfax, Cal.

BROOM-HANDLE SOCKET.—John H. Pitts, S. F., Cal.

TRADE-MARKS.

FOR WHISKY.—Lilienthal & Co., S. F., Cal.

FOR WATCHES.—John W. Tucker (two cases), S. F., Cal.

The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue. NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & CO., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with perfect security and in the shortest possible time.

Boys' and Girls' Aid Society.

[We have received the following circular, which we publish for a good cause. Let all who are able give something for this worthy, christianizing enterprise. We hope similar associations will be formed in other cities on this Coast:—EDS.]

The Trustees, in soliciting a subscription for the coming year, beg to present you a brief summary of their work for the past twelve months. Finding it impossible to lease premises adapted to their use, they purchased a small lot on Clementine street, and erected a very plain building. To give the boys a feeling of ownership and interest in the Society, the Superintendent organized them into the "Boys' Advance Club," charging fifteen cents a month admittance. On opening the doors the boys soon crowded in to our utmost capacity, and we are glad to say our popularity continues.

The Society provides a comfortable reading room for the studiously disposed boys, a gymnasium for the playful, a bath for those that need it, and by the kindness of our friends we have a library of four hundred volumes, to be read at the rooms or loaned out to the well disposed. The rooms are open every day (Sundays excepted) from 2 to 9 P. M.

The influence on the boys has been quite marked. We can readily perceive that they become more easily managed and more disposed to self-restraint. We can confidently say they are much better boys than when they entered the club. We have numbered on our roll, in all, about 300 boys; our present membership being about 180. We have during the year provided twenty boys with permanent homes in the country, from whom we have received encouraging reports, and we intend to enlarge this sphere of our action.

We earnestly entreat you to aid us in this work. By sending the enclosed postal card, specifying how you prefer to make payments, whether monthly, quarterly or yearly, you will escape the annoyance of a call from our solicitor. As a matter of business, sustain the only real practical effort to grasp the "Hoodlum Problem," and help these unfortunate children to grow up to be useful men and women, instead of leaving them to develop into jail birds and criminals. Come and visit the rooms of the Society, at 68 Clementine street, and see what we have done, then you will certainly help us do more.

The annual meeting of the Society, at which nine trustees will be elected, will be held at the rooms, No. 68 Clementine street, on Monday evening, June 1st.

The circular is signed by the following officers:

Geo. C. Hickox, President; Geo. M. Johnson, Secretary; Stephen Franklin, Treasurer. Trustees—S. B. Boswell, John W. Taylor, C. A. Murdock, Horace Davis, A. S. Hallidie, Irving M. Scott, Samuel O. Gray, W. H. Codrington. San Francisco, May 19th, 1875.

Coming Fairs and Exhibitions.

[Officers of industrial societies will please inform us of their approaching fairs and exhibitions.]

Twenty-second annual fair of the California State Agricultural Society, to commence on the 15th and end on the 25th of September, 1875, at Sacramento.

The Centennial International Exhibition, at Fairmount Park, Philadelphia, will open on the 9th of April, 1876, and close on the 15th of October following.

International Exhibition of 1876, Santiago, will open nominally August 15, 1875, continuing until April 2, 1876. Officially from September 16, 1875, to January 1, 1876. Articles for exhibition may be entered at any time from the 15th of August to the 15th of September, and remain on exhibition if the exhibitor so desires until the 2d of April following.

Tenth Industrial Exhibition of the Mechanics' Institute of San Francisco, commencing Tuesday, August 17, 1875, to continue open at least one month.

American Pomological Society, Fifteenth session, at Chicago, Wednesday, September 8, 1875, continuing for three days.

The Alabama State Grange Fair, at Selma, Alabama, Tuesday, October 26, 1875, continuing five days.

Fifteenth Annual Fair of the Oregon State Agricultural Society, at Salem, commencing Monday, October 11th, 1875, and continuing six days.

The sixteenth annual exhibition of the Santa Clara Valley Agricultural Society will commence Oct. 4th, 1875, at San Jose, and continue for six days.

MILLS, Bristow, Carter and others declare Clarke's New Method for the Piano Forte to be the instructor for students. Price, \$3.75.

NO AGENTS are authorized to receive subscriptions for this paper at less than our advertised rates.

(IN PRESS.)

Manual of Jurisprudence and Co-Operation

—OF THE—

Patrons of Husbandry.

By A. B. SMEDLEY, Master of Iowa State Grange.

Published by Geo. M. JONES, OFFICE OF PATRON'S HELPER, DES MOINES, IOWA.

200 pages, bound in cloth.

By mail, postage prepaid, \$1.25 per copy. By express or freight, in packages of five or more, \$1.00 per copy.

CONTENTS.

INTRODUCTION.

The Origin of the Order. Its Objects: To Educate, Elevate and Strengthen the Farmers as a class.

PART I—JURISPRUDENCE.

I—The Grange. II—Grange Room. III—Qualifications of Candidates. IV—Applications for Membership. V—Balloting for Candidates. VI—Rights and Duties of Members. VII—Qualifications and Duties of Deputies. VIII—Qualifications and Duties of Masters. IX—Qualifications and Duties of Secretaries. X—Charges. XI—Trials. XII—Appeals. XIII—Withdrawals and Demits. XIV—Consolidations. XV—The Degrees of the Order Symbolized. XVI—Pomona Granges.

PART II—CO-OPERATION.

I—Co-operation in General Business. II—Co-operative Insurance. III—Co-operative Banking.

APPENDIX.

Forms for: Certificate of Membership—Petition of Membership—Commission of Deputies—Annual Report of Deputies on Business—Visiting Card—Withdrawal Card—Demit Card—Certificate of Election—Certificate to be used at Representative Election. Constitution of Pomona Granges. Forms for: Petition for Membership—Certificate of Election—Certificate of Grangers' Bank in California. Constitution and By-Laws of Co-Operative Council. Articles of Association, Farmers' Mutual Fire Insurance Company. Certificate of Insurance.

Deputies and Masters are earnestly requested to call the attention of their respective Granges to this book, to the end, that by its general use each officer and each member of our Order may better understand his rights and duties, and the Order everywhere may thereby be strengthened and built up, and enabled to perform its whole work and attain unto perfect success.

Address,

DEWEY & CO.,

Pacific Rural Press Office, S. F.

P. S.—For convenience, copies will also be delivered by I. G. Gardner, State Grange Agent, No. 6 Leidesdorff street, San Francisco.

RURAL EXCHANGES.—If any of our readers desire to subscribe for an agricultural paper published elsewhere than in the South, the best place to send their money is not New York, or Philadelphia, or Boston, but San Francisco. This should not be understood as undervaluing the many deserving publications which come from the former places, some of which may be read with profit anywhere, but as our estimate of the comparative adaptation of the Eastern and the Pacific coast journals to our climate, crops and circumstances. In this respect the advantage is so clearly on the side of the latter that we would sooner pay the \$4 a year charged for the PACIFIC RURAL PRESS (weekly) for instance, than to obtain any three Eastern agricultural journals, were that possible, for the same money. The PRESS is most ably conducted, and is one of the best papers on our exchange list. Published by Dewey & Co., San Francisco, at \$4 a year.—Rural Carolinian Charleston.

The Best Agricultural Paper in America.

PORTERVILLE, February 10, 1875.

TO THE EDITORS AND PUBLISHERS OF THE RURAL PRESS:—Dear Sirs: I am going to change my residence, and I will take the RURAL PRESS again, when I get settled, and will get back numbers. I can say without flattering you that it is the best agricultural newspaper in America, and I will use my influence in your behalf. Yours with respect, JOHN MCINTIRE, Jr.

SUBSCRIBERS are requested to examine the printed address on their papers. If mistakes occur at any time, please report them to this office. The last figures (at the extreme right) represent the year that your subscription is paid to. Next to these the day and month is represented. For instance, your subscription being paid to July 4th, 1876, it would be represented, viz: 7-4-76; or 4/176; or July 4, 76.

ANY PERSON receiving this paper after giving an order to stop it, may know that such order has failed to reach us, or that the paper is continued inadvertently, and they are earnestly requested to send written notice direct to us. We aim to stop the paper promptly when it is ordered discontinued.

SAMPLE COPIES.—Occasionally we send copies of this paper to persons who we believe would be benefited by subscribing for it, or willing to assist us in extending its circulation. We call the attention of such to our prospectus and terms of subscription.

WOODWARD'S GARDENS embraces an Aquarium, Museum, Art Gallery, Conservatories, Tropical Houses, Menagerie, Seal Ponds and Skating Rink.

LOCKE & MONTAGUE,

IMPORTERS OF

Stoves, Ranges,

Tin Plate, Sheet Iron, Iron Pipe,

House Furnishing Hardware,

Plain Japanned,

Planished and Stamped

TIN WARE,

112 and 114 Battery Street.

SAN FRANCISCO.

127

Nurserymen.

Established 1853.

Stocks for Nurserymen.

Plum Seedlings, Mirobolan, the best French stock, does not sucker..... \$50 per 1000
Apple Seedlings..... 10 per 1000
Pear Seedlings..... 10 per 1000
Cherry Seedlings, Mazzard..... 12 per 1000
Cherry Seedlings, Mahaleb..... 20 per 1000
Walnuts, English, 4 to 6 feet..... 15 per 100
Cork Elm, best Elm, 4 to 6 feet..... 15 per 100
Bine Gum or Eucalyptus, in variety..... 5 to 10 per 100
Magnolia Grandiflora.....
Magnolia Acuminata.....
Magnolia Tripetala.....
Golden Arborvitae.....
Crataegus Arbuta.....
Swedish Juniper.....
Irish Juniper.....
Heath-leaved Arborvitae.....
Lauristinus, 6 to 12 in..... \$2 50 per doz.
Lauristinus, 2 to 4 in..... 2 50 per doz.
Making the growth of Oranges and Lemons a specialty, I have imported from all sources the best known varieties, and now offer five thousand Grafted Trees properly worked and twice transplanted at \$18 per dozen. Grafted oranges by the 100 or 1,000 at prices on application. The amateur in want of large PALMS, large AURICARIAS, large CAMELIAS and large TREE FERNS, a good stock on hand; also the usual large stock of fruit and ornamental trees.

BERNARD S. FOX,
San Jose, Cal.
THOS. MEHERIN, Agent, 516 Battery Street, San Francisco. 24v8-3

KING'S NURSERY,

Twenty-fifth St., bet. Telegraph & Broadway

OAKLAND, CAL.

Fruit, Shade and Evergreen Trees, Shrubs, Roses, Etc. Persons laying out new grounds would do well to call and examine stock of EUCALYPTUS, including BLUE GUM Plums and OLYMPIES from six inches to twelve feet high. Acacias in Variety; Young Stock for Nurserymen; Pines and Cypress; Three Thousand Magnolia Grandiflora from six inches to five feet high; Camelia Japonicas; Gardenia Cape Jessamine; Araucarias in Variety, at Lowest Rates. Orders attended to.

Address, M. KING, Nurseryman,
3v9-3m Oakland, Cal.

Thos. A. Garey's

Semi-Tropical Nurseries.

LOS ANGELOS, CAL.

Forty varieties of the Citrus family of semi-tropical trees, including many rare and beautiful, as well as useful and profitable kinds.
Grafted and Budded Orange Trees a specialty. Trees packed to arrive in good order. Priced Catalogue sent free. Address me P. O. Box, 528, Los Angeles city, Cal.
23v8-6m THOS. A. GAREY.

PEPPER'S NURSERIES.

(Established in 1858.) PETALUMA, CAL.

Green Houses and Tree Depot corner Washington and Liberty streets.
4 Green Houses. 3,000 feet of Glass. Fruit Trees a Specialty.
We offer for sale at lowest market rates a general assortment of Fruit and Shade trees, small Firs, Vines, etc. Evergreen trees and Shrubs in great variety. Green House, Conservatory and Boddling Plants, Roses, etc.
We are now ready, Nov. 1st, to fill orders for trees and plants. Catalogue and price list furnished on application.
Address, W. H. & G. B. PEPPER,
19v8-tf Petaluma, Sonoma Co., Cal.

SUPERIOR FRUIT TREES

TRUE TO NAME.

A fine collection of Evergreen and Deciduous Trees. Australian Gum Trees in variety, by the hundred or thousand. Monterey Cypress in quantities and sizes to suit all. Orange and Lemon Trees at reduced prices. A general variety of Nursery stock.
Also, Rhubarb and Asparagus root.
T. CORLEY,
8v29-tf 315 Washington Street, S. F.

PEACHES, APRICOTS AND PLUMS are specialties at the Vacaville Nursery, Solano Co., Cal. Alexander's Early, Thurber and Peento in bud, 50 cents each; Beatrice, Louise, Rivers' Early, Lord Palmerston Lady Palmerston, Prince of Wales, Princess of Wales, Piquet's Late, Lady Penrhyn, Italian Dwarf, Golden Dwarf, Bloodleaved and many other varieties of new Peaches in bud, at 25 cents each; Trees of Alexander's Early, \$1 each. Beatrice, Plowden, Freemason and a general assortment of the leading varieties, 25 cents each; Apricots, Plums, Apples, Pears, Cherries, Almonds, Figs, Olives, Pomegranates and including most of the leading varieties of fruit for sale at low prices. D. E. Hough, Vacaville, Solano Co., Cal.

SUPPORT HOME INDUSTRY.

WHEATEN STARCH,

MANUFACTURED BY

J. JOHNSTON.

SAN JOSE, - - - - - CALIFORNIA.

This starch is made from the best of wheat, and is used by the laundries and hotels, who pronounce it Superior in Strength and Fine Satin Gloss to any imported starch—one pound being equal to one and a half pounds of Eastern starch.

Agricultural Articles.

KIMBALL CAR, CARRIAGE

-AND-

AGRICULTURAL IMPLEMENT

MANUFACTURING CO.,

Cor. Bryant and Fourth Sts., San Francisco

The CALIFORNIA TUBULAR IRON AND WOOD FRAME HARROW—two, four and six-horse Iron Harrows, \$60, \$70 and \$75. Wood Frame Harrow, \$10 less on each size than the Iron.
The Harrow has an easy seat for the Driver. The middle section rests on three wheels with wings hinged on each side.
By use of Levers the Driver in his seat can raise or lower the Harrow, regulating at will the depth of the teeth in the soil, and in the same manner fold or raise the wings from the ground so as to drive from the road to the field, saving the use of a wagon.
Our CALIFORNIA SCRAPER is also made for the ease of the Driver, enabling one person to ride, manage the team and do the work.
Is adapted for leveling and preparing the surface of the soil for irrigation. And for making roads, removing dirt from ditches, cleaning barn yards, sheep corals, etc.
The IMPROVED EAGLE HAY PRESS—Best in use on this Coast. Cheap, Economical, Powerful, and easily repaired.
Will press bales weighing from 250 to 325 pounds, using less rope than any other press.
Three men with a good team of horses will bale from 10 to 15 tons per day.
Adapted for baling wool, hides, cotton, rags or moss. Price, \$250. Weight of press, 2,500 pounds. Please send for circulars.

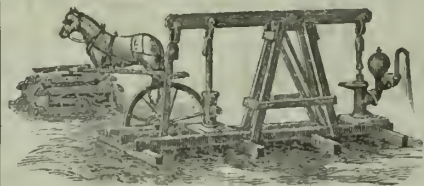
VINE AND FRUIT GROWERS,

TO RAISE LARGE CROPS

YOU MUST IRRIGATE.

To irrigate successfully, you must have the power that does not give out when the wind fails.

Laufkotter Bros. & Churchman's Horse-Power,



(PATENTED FEBRUARY 13TH, 1872)
Never fails to supply more water than four or five Wind-mills, even supposing you had all the wind you want. It is also suitable for running light machinery, such as Barley Crackers, Corn Shellers, Fanning Mills, Grain Separators, or, for Sawing Wood. They are never failing, cannot get out of order, easily worked, substantial, and always give satisfaction wherever they have been used. One horse can easily work two 8-inch pumps, with a continuous flow of water. Force Pumps, from 3,000 to 10,000 gallons per hour. WINDMILLS of all kinds manufactured to order. Wells Bored, Windmills and Horse-Powers set in any part of the State, and repairing of all kinds done.
Manufactured and for sale by
LAUFKOTTER BROS.,
v7-2m-3m Cor. J and 10th Sts., Sacramento.

Plummer's California Fruit Drier.

PATENTED DECEMBER 29TH, 1874.
This is the Cheapest and Most Economical, Largest Capacity, and Most Speedy DRIER, and gives the fruit a better flavor than any other machine ever invented. 1st—It only requires a shed to work under; 2d—has boiler, engine, and steam-pump for irrigating or other purposes, in connection with the Drier or separately; 3d—the cost is one-half less than any other of the same capacity, and there is no danger of burning the fruit. A sample machine is in full operation at our factory, No. 31 BEALE ST. Address, SPAULDING & BRO.,
Send for Circulars. San Francisco, Cal.

THE GRANGER ENGINE.

Farmers' and Threshers' attention is called to this splendid Engine. Especially adapted to burning straw, wood or coal. This is the only Engine in the market that is designed to run Derrick Forks by steam. The saving of fuel to run the Engine, and the men and horses dispensed with in running the Derrick Forks, will amount to the Price of the Engine in one season. Manufactured and sold by

J. L. HEALD, Vallejo.

Farmers and Threshers

WISHING TO HAVE

Straw Burning Engines

For next season must engage them soon, as most of those now building are already sold. Three Engines for Repairs should be sent in now. A number of Second-hand Engines—taken in exchange for "Straw Burners"—for sale cheap. For particulars and prices, address: H. W. RICE,
23v8-3m Haywood, Alameda County.

ENRIGHT'S

Portable Strawburning Engines

Burns either Straw, Wood or Coal, Manufactured and sold by JOSEPH ENRIGHT,
mr-13-3m Jose.

J. WAGNER,

MANUFACTURER OF

FRENCH BURR MILL STONES AND

PORTABLE MILLS.



General Mill Furnishing. Portable Mills specially adapted for Farmers' use. 113 and 115 Mission street, San Francisco. 13v7-3m-2am

O. CROO. S. O. BOWLEY.

CREGO & BOWLEY,

Importers and Manufacturers

-OF-

CARRIAGES and WAGONS,

No. 9 Merchant's Exchange,
CALIFORNIA STREET.....SAN FRANCISCO

Keep constantly on hand top and open Buggies, top and open Rockaways, Jump-seat Buggies, Truck and Road Sulkeys, Skeleton Wagons, Basket Phaetons of the very latest styles and finest workmanship.
We would call particular attention to our fine stock of Light Road and Trotting Wagons, made to order by the following celebrated makers:
Charles S. Coffey, Camden, New Jersey;
Helfield & Jackson, Rahway, New Jersey;
Gregg & Bow, Wilmington, Delaware;
And the first-class makers, which we are prepared to sell on the most reasonable terms.
Also, a large assortment of single and double Harness, of the most celebrated makers:
O. Graham, New York; J. R. Hill, Concord; Pitkin & Thomas, Philadelphia.
Also, a full assortment of Dress and Light Blankets, Fur and Lap Robes, Whips, Halters, Surcingles, etc., at wholesale and retail.

CREGO & BOWLEY,
No. 9 Merchants' Exchange, California street,
24v5-3m San Francisco.

MATTESON & WILLIAMSON'S



Took the Premium over all at the great Plowing Match in Stockton, in 1870.
This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over grade knolls without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to
14v2-3m MATTESON & WILLIAMSON,
Stockton, Cal.



PUMPS SLUTHOUR PUMPS

Are sold 50 per cent. under any other in the market, considering the amount of water obtained for the power applied. They have now been fully tested for IRRIGATION, and entire satisfaction is guaranteed. Call and see them, or send for Circulars.
J. M. KEELER & CO., Agents,
306 California Street, San Francisco.

Hooper's South End Grain Warehouse,

Japan and Townsend Streets.

SAN FRANCISCO, July, 1874.
I beg to inform you I have leased the above first-class Fire-Proof Brick Warehouse, now being erected by Geo. F. Hooper, Esq., and will be ready to receive storage on the 1st of August. This warehouse offers superior inducements to parties desiring to store grain and flour, as it is situated on the Water Front, and on the line of the O. F. R.R. and S. P. R.R. It is well ventilated, rat proof, and combines all the modern advantages and improvements. Yours respectfully, JOHN JENNINGS.
Advances and insurance effected at the lowest rates. Storage taken at lowest current rates. 4v8-ft

ALEX. BUSWELL,

BOOK BINDER, PAPER RULER

AND BLANK BOOK MANUFACTURER.

521 Clay Street, S. F.
Blank Books Ruled, Printed and Bound to Order

Commission Merchants.

H. K. CUMMINGS, 1858. H. S. RALSTON, 1875.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission House,

ESTABLISHED 1858.

No. 424 Battery street, southeast corner of Washington, San Francisco.

Our business being exclusively Commission, we have no interests that will conflict with those of the producer. 4v23-1y

MOODY & FARISH,

Wool Commission Merchants,

No. 210 Davis Street, S. F.

Enreka Glycerine and Carbolic Sheep Dip; Sheep Shears; Wool Sacks and Twine constantly on hand at low prices.

Davis & Sutton, Commission Merchants, For California Fruits; also for the sale of Butter, Eggs Cheese, Hops, Green and Dried Fruits, etc., 75 Warren street, New York. Refer to Anthony Halsey, Cashier, Tradersmen's National Bank, N. Y.; Ellwanger & Barry, Rochester, N. Y.; O. W. Reed, Sacramento, Cal.; A Lusk & Co., Pacific Fruit Market, San Francisco, Cal.

THE ALDEN

FRUIT PRESERVING COMPANY,

OF CALIFORNIA.

OFFICE, 426 MONTGOMERY ST., S. F.

Our improved apparatus will do one-third more work than that erected last season, while our prices have been materially reduced. A portion of the purchase money may be paid in the products of the Alden factories. We guarantee against infringements. The Alden is the oldest, the best and the cheapest process known for preserving fruits, vegetables, meats, etc.

It would be unwise to purchase the new and untried dryers before they have demonstrated their superiority by at least one year's regular work. Send for our circulars.

J. Y. WILSON. WM. FAULL. W. L. MERRY

WILSON, MERRY & CO.,

Provision Packers

And Dealers in

SALTED AND SMOKED MEATS,

Lard, Etc.

PROP'S BLACK POINT PACKING HOUSE.

We respectfully call the attention of Farmers and Stock Raisers to the fact that we are always prepared to purchase hogs, cattle and sheep at full market prices, for Cash, and shall be glad to answer promptly any inquiries addressed to us on the condition of the Market.

Office No. 223 Sacramento St., Near Front. San Francisco.

Union Box Factory,

GEO. W. SWAN & CO.,

115 and 116 Spear St., bet. Mission & Howard SAN FRANCISCO.

Apple, Pear, Plum, Peach, Cherry, Grape, Orange, Lime and Wine Cases.

Tomato, Potato, Fig and Raisin Boxes.

Strawberry, Raspberry and Blackberry Chests and Drawers, and Baskets for all kinds of Berries.

Peach and Picking Baskets, Butter Chests and Boxes, Cheese Boxes, Square and Round Egg Carriers.

Drums for Figs, Cherries, Raisins, and for other Dried Fruits.

Free Packages—Boxes not to be returned—a good article, costing less than Sawn Boxes.

Lard Caddies, Coffee and Fruit Caddies.

Turkey and Chicken Coops, Bee-Hives, Etc.

Packing Boxes for Dry-Goods, Cigars, Candles, Canned Fruits, Honey, Macaroni, Crackers, Sugar, Soap, Boots, Etc.

In fact, every style of Boxes manufactured in the Union, and turned out in the Best Style at Favorable Prices. Orders from the country well attended to.

5,500 ACRES

Of the best portion of the old NOMELACKEE RESERVATION, in Tehama County, for sale very low; only five dollars per acre; one-third down, one-third in one year and one-third in two years, with interest at one per cent. per month. Will be sold all together or in two parcels. This is one of the finest tracts of grazing land in Northern California; is abundantly watered by numerous perpetual springs and has two miles of the Elder Creek, a clear mountain stream. Its grass never fails from drought, and is of the best quality for sheep and has no clover burr. 800 acres of level plow land; timber for posts, fuel, etc. Enquire of ALLEN WILCOX, Los Angeles, or F. B. WASHINGTON on the tract, twenty miles west of Tehama.

DURYEA'S SATIN GLOSS STARCH AND DURYEA'S IMPROVED CORN STARCH

Are the Best in the World.

USE IT ONCE AND YOU WILL USE NO OTHER.

For Sale by All Grocers.

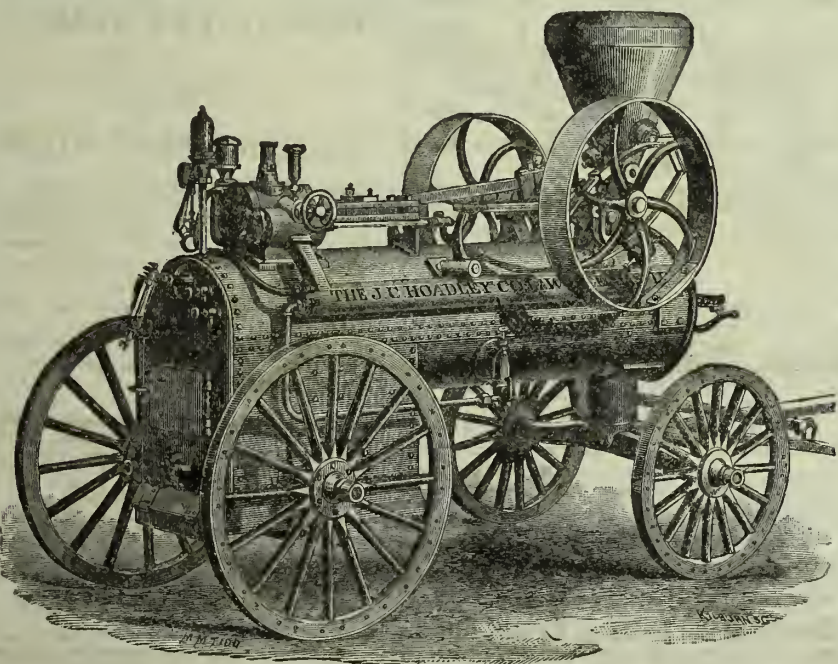
FAC-SIMILES OF PRIZE MEDALS AWARDED THE



The Messrs. Duryea have succeeded in refining Starch to entire purity and developing its entire strength and clearness, an improvement that will be readily perceived in the great strength of the Starch, the superior luster that it gives, and in its reliable uniformity. Much of the so-called starch contains from one-fourth to one-third foreign matter, readily perceived by sourness, mustiness, or a golden yellow tinge, peculiar to inferior starches, a color not desirable for one's linen, but inseparable from the use of common starch. They pledge themselves to the public to give uniformly superior article, from one-fourth to one-third stronger than any other starch in the world, and at the common market rates.

EGERTON, ALLEN & CO., Sole Agents for the Pacific Coast
San Francisco, California.

The Hoadley Regulating Cut-off THRESHING ENGINES.



The above cut represents the Hoadley New Style Threshing Engine, 15-horse power, with Patent Cut-off Governor. We also have the same style and size, with HOADLEY'S NEW PATENT STRAW-BURNING FIRE BOX. This new Engine has been thoroughly tested, and we are prepared to warrant it to give satisfaction, OUR GUARANTEE GOES WITH EVERY ENGINE INTO THE FIELD. This new engine is fitted out complete, with High Seat, Foot-Board for Driver, California Roller Brake (not shown in engraving), Iron Hub, Patent Wheels, Forged Bent Axle, and all Mountings in Perfect Order.

THE Hoadley Straw-Burning Threshing Engine

Is no heavier than wood-burning engines of same power, and is unquestionably the Best Threshing Engine in the world. It is Lighter, Better Made, Safer, and will do More Work than any other engine of same size and price ever built. THIS FACT IS INDISPUTABLE. Farmers and Threshers desiring to buy Straw-Burners for coming season, should secure their Engines Early, as the number is not large, and many are already engaged. All Engines will be tested in presence of customers, when required. Send for Circular and Prices. Address,

TREADWELL & CO., Sole Agents, San Francisco.

GREAT EASTERN AND WESTERN

Horse and Mule Market,

Cor. Fifth & Bryant Streets, San Francisco.

A choice stock of Carriage, Draft and Farm Horses on hand, and constantly being received from the East. All classes of Horses and Mules purchased and sold.

WASHBURN & RANDALL, Props



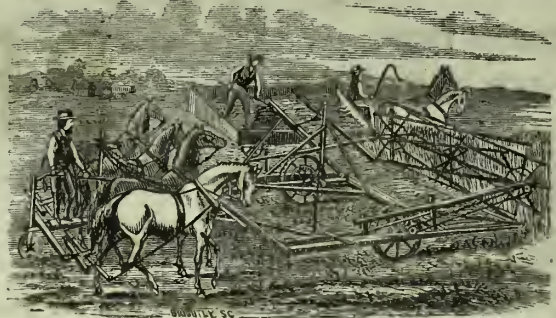
LOOK!

ALBERT E. BURBANK, Importer and Breeder of Fancy Fowls, Pigeons, Rabbits, etc. Also Eggs for hatching from the finest of imported stock. Eggs and Fowls at reduced prices. Send for Price List.

ALBERT E. BURBANK,
178-3m 43 & 44 Cal. Market S.F.

Brittan, Holbrook & Co., Importers of Stoves and Metals, Tinners' Goods, Tools and Machines, 111 and 113 California, 17 and 19 Davis streets, San Francisco, and 178 J street, Sacramento!

OUR IMPROVED HAINES' HEADER,



With Compound Leverage,

Doing away with all Ballast or Weights,

Either on the Lever or Frame; will be appreciated by Header Men. Also, a new device for driving the Knife, making the Header run one horse lighter than any header ever imported. The driving of the Reel is an improvement; in turning, the Reel runs just as fast as when driving straight ahead. The improvements will be found to meet the demands of California trade.

Our Excelsior Mowers are Improved for 1875.

Three Sizes—"Junior," "Medium" and "Senior."

J. I. CASE & CO.'S

SEPARATORS AND STEAM ENGINES

Are the Largest Works of the Kind in the World.

The Threshers and Engines are Made Expressly for this Trade.

Pitts' Down and Mounted Powers, "Foust's" Hay Loader, and Keller & Co's Sulky Revolving Hay Rake,

An age in advance of any other Rake. See these goods before buying; they can be found with us only. Our Stock of Implements is Complete.

Haines' Header Sickles, Excelsior Mowing Knives, Buckeye Mowing Knives, (Nos. 1 and 2), Sections, Rivets, Etc.

THRESHERS, ENGINES, POWERS, HEADERS, REAPERS, MOWERS, RAKES, HAY PRESSES, CORN PLANTERS, CORN CULTIVATORS, CORN SHELLERS, CIDER AND WINE MILLS, HAY CUTTERS, DERRICK FORKS, BELTING, PUSH CARTS, PLOWS, HARROWS, CULTIVATORS, GORHAM SEEDERS AND CULTIVATORS COMBINED, FISH BROS., PACIFIC WAGONS, REGULATOR WINDMILLS AND PUMPS, ETC.

KELLER & CO., 43, 45 & 47 J Street, Sacramento, Cal.

SEND FOR CIRCULAR.

PUMPS.

"PEOPLE'S PUMP."

THE FARMERS' FRIEND.

BEST IN USE FOR HOUSE AND STOCK PURPOSES. CAN

BE USED WITH HOSE FOR WASHING

WAGONS, WINDOWS, AND

WETTING GROUNDS.

SEND FOR CIRCULAR.

DUNHAM, CARRIGAN, & CO.,

Successors to

Conroy, O'Connor & Co.,

60W

San Francisco

BOWEN'S PREMIUM YEAST POWDER.

Bowen's Premium Yeast Powder.

Bowen's Premium Yeast Powder.

Bowen's Premium Yeast Powder.

Bowen's Premium Yeast Powder.

Best in the World! Every Can Guaranteed!!

For Sale in Every Village, Town and City on the Pacific Coast.

Ask Your Grocer for It.

Manuf'd by BOWEN BROS., 432 Pine St., S. F., and 11th & 12th Sts., Oakland

THE CALIFORNIA

STANDARD BURLAP SACK COMPANY

OF SAN FRANCISCO,

Now offer for sale their GRAIN BAGS, 22x36 and 20x36, sewed by Machinery with the best of Flax Twine, warranted not to rip in filling, the stitch being the same as the Dundee hand-sewed Sack. The sewing has been examined by good judges, and pronounced superior to any other.

SAMPLES SENT ON APPLICATION AT THE

Factory, No. 36 Clay Street.

A. J. GOVE, Superintendent.

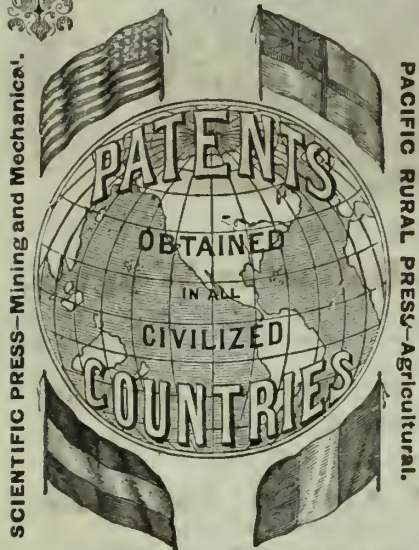
For Sale in Quantities to Suit by

I. FRIEDLANDER,

Cor. California and Battery Sts.,

SAN FRANCISCO, CAL.

DEWEY & CO'S SCIENTIFIC PRESS Patent Agency.



Publishers, Patent Agents and Engravers
No. 224 Sansome st., San Francisco, Cal.

How To Paint

A New Work by a Practical Painter, designed for the use of Tradesmen, Mechanics, Merchants, Farmers, and as a Guide to Professional Painters. Containing a Plain Common-Sense Statement of the Methods employed by Painters to produce satisfactory results in Plain and Fancy Painting of every description, including Formulas for Mixing Paint in Oil or Water, Tools required, etc. This is just the Book needed by any person having anything to paint, and makes

"Every Man His Own Painter."

Full Directions for Using White Lead—Lamp-Black—Green—Yellow—Brown—Whiting—Glue—Pumice Stone—Spirits of Turpentine—Oils—Varnishes—Furniture Varnish—Milk Paint—Preparing Kalsomine, etc.

Paint for Outbuildings

—Whitewash—Paste for Paper-Hanging—Hanging Paper—Graining in Oak, Maple, Rosewood, Black Walnut—Staining—Decalcomania—Making Rustle Pictures—Painting Flower-Stands—Rosewood Polish—Varnishing Furniture—Waxing Furniture—Cleaning Paint—

Paint for Farming Tools

—for Machinery—Household Fixtures, etc.

To Paint a Farm Wagon

—to Re-Varnish a Carriage—to make Plaster Casts. The work is neatly printed, with illustrations wherever they can serve to make the subject plainer, and it will save many times its cost yearly. Every family should possess a copy. Price by mail, post-paid, \$1. Address

DEWEY & CO.,

San Francisco, Cal.

publishers of this journal.

THE PACIFIC RURAL PRESS has a larger Circulation than any other Pacific Coast Weekly, independent of a daily issue.

HAY and WOOL PRESSES.

The Fastest, Strongest, and Best Portable Hay Press in the World is the

PRICE, or PETALUMA PRESS.

400 in Use.

Bales from 12 to 20 tons per day.

Price, \$450, Cash.

The Most Simple, Compact and Effective Cheap Press Known is the

IMPROVED ECLIPSE,

Eight feet six inches high. Weigh 2,000 pounds. Bales from 10 to 18 tons per day. Price, \$300, Cash.

The above machines are delivered at the Factory, San Leandro, Cal.

For further information or for illustrated circulars that answer all questions relating to the above Presses

Address Price Press Co.,

Office with BAKER & HAMILTON, 17 Front Street, S. F.

Dr. M. A. MORRELL'S



ABDOMINAL SUPPORTER.

When we take into consideration the vast amount of labor performed by the muscles of the Abdomen, we can readily see the necessity of mechanical assistance when for any cause they become weakened or relaxed. They are constructed on scientific principles, and will fit any form by adjusting the laces as required. They are easily adjusted and comfortable to wear. Ladies who find it difficult to walk from heaviness or bearing down feeling will be greatly relieved by wearing them, and will be able to walk without inconvenience.

To Ladies who wish to retain their figure, the Supporter is indispensable after childbirth; also during the enfeebled period it affords just the support required.

These Supporters are on sale at No. 327 1/2 Third Street, San Francisco. Ladies not residing in the city can have the same forwarded to them, C. O. D., by forwarding 50 cents to prepay Express charges; and in case the Supporter does not give perfect satisfaction, the money will be refunded.

The price of the supporter varies from \$2.50 to \$10, according to quality of material.

In ordering, send the size around the top of the hips and the amount you desire to pay.

Address

Dr. M. A. MORRELL.

327 1/2 Third Street, SAN FRANCISCO.

LANE & BODLEY,
John & Water Sts., Cincinnati.

Manufacturers of the Best

FARM ENGINE.

Mounted and ready for use. Send for our illustrated catalogue.

M. FALLON,

Cor. Seventh & Oak sts.,

OAKLAND, CAL.

Light & Dark Brahmas, Buff, White and Partridge Cochins, Spangled, Golden and Silver Polish, Spangled, Golden and Silver Hamburgs, Pure White-faced Black Spanish, White and Brown Leghorns, Silver Grey Dorkings, Houdans, Silkies, Black-Red Games, Bronze Turkeys, Rouen and Aylesbury Ducks.

All from Premium Stock of Best Strains.

Fowls of above varieties for sale; also, Chickens in their season. Eggs packed with care and sent in rotation as orders are received.

Bronze Turkeys

12 Gobblers from 8 to 20 months old, 22 to 40 lbs each, for sale now. Hens 14 to 18 lbs.



Emden Geese

40 to 50 pounds per pair at maturity.

BLACK CATUGA DUCKS,

Games, Brahmas, Leghorns, Houdans, Bantams, etc.

Eggs, fresh, pure, true to name; well-packed so as to hatch after arrival.

For Illustrated Circular and Price-List, address

M. EYRE, Napa, Cal.

FERRETS. RABBITS. PIGEONS.

Please state where you saw this advertisement.

Steam Power and Separator.

A large Boiler, Steam Engine, and first-class Separator, second-hand, in perfect running order, is offered for sale. Young horse stock of good style and pedigree (about 11 cwt.), will be taken in part consideration.

Apply to

G. COOK,

Cordelia, Solano County,

Or to JOHN WHITE, 1000 Market St., San Francisco.

Dewey & Co. { 224 } Patent Agt's.

NEW CROP OF BLUE GUM SEED.

GRASS AND CLOVER SEEDS.

FLOWER AND VEGETABLE SEEDS.

TREE AND FRUIT SEEDS.

OF EVERY DESIRABLE VARIETY AND OF THE BEST QUALITY; OFFERED AT WHOLE-SALE OR RETAIL, BY

GEO. F. SILVESTER,
SEEDSMAN,

No. 317 Washington Street,

448-1f SAN FRANCISCO

1874. GUIDE AND CATALOGUE 1875.
FREE.

To persons contemplating purchasing I will send my ILLUSTRATED, DESCRIPTIVE CATALOGUE and GUIDE to the VEGETABLE and FLOWER GARDEN WITHOUT CHARGE. It contains the most extensive and valuable list of



Flowering Bulbs, Roots and Plants, Semi-Tropical Trees, Ornamental Shrubs, Fruit and Shade Trees, etc., ever offered in this market. It tells how to successfully grow the Australian Blue Gum, the Monterey Cypress, Pines, etc., and the proper method of Cultivating Tobacco on this Coast.

My stock of Seeds is in part my own raising and in part direct importations from the best European and Eastern growers, and is unsurpassed in all respects by that offered by any other establishment. 100,000 Australian Blue Gums and Monterey Cypress in boxes at from \$30 to \$50 per 1,000, raised at my own Nursery at San Rafael.

R. J. TRUMBULL,
Grower, Importer, Wholesale and Retail Dealer in Seeds, Shrubs, Trees, etc.

2078-6m-16p 427 Sansome street, S. F.

Improve Your Poultry,

IT COSTS NO MORE TO KEEP GOOD FOWLS THAN POOR ONES!

OAKLAND POULTRY YARDS,

Cor. 16th and Castro streets, Oakland, Cal.

Eggs for Hatching

GUARANTEED FRESH,

True to Name,

And to carry safely to any part of the country.



BRAHMAS, LIGHT AND DARK LEGHORNS, WHITE AND BROWN HOUDANS, COCHINS, BUFF, BLACK AND PARTRIDGE POLISH, GOLD AND SILVER, HAMBURG GOLD-EN, SILVER AND BLACK GAMES, AYLESBURY AND ROUEN DUCKS, DORKINGS AND BANTAMS.

BRONZE TURKEYS, the Largest in America. Send for Circular to

GEO. B. BAYLEY,

Box 659, San Francisco.

Calistoga Real Estate Company.

Calistoga, with a population of about 800 persons, is a village watering place at the head of the valley of Napa, in California. It is four hours' travel north of San Francisco by steamboat and rail.

Its shipping port is Vallejo, on the bay of San Francisco, forty miles distant by rail. It lies at the head of the most charming valley in the State.

THE BEAUTIES OF NAPA.

In traversing this thirty-seven miles of fertile dale, the eye never wearies. If one ascends the sides of the leafy mountains that bound the valley on either side, whether looking up the valley or down, and from whatever point of view, the scene is one of ravishing beauty.

Mounting the summit of St. Helena, which towers over all, far to the east the snowy Nevadas bound the view; and to the west spreads the Pacific ocean, with its winged ships and its blue horizon. To the north are the vast forests of Mendocino, its stately trees, turned to shrubbery and Clear Lake in its pride of expanse dwindled to a mill dam.

THE WARM SPRINGS.

From the beauties of Calistoga we turn to its other attractions. The estate covers 2,000 acres of fertile land. Its warm springs are crowded with invalids, who flock to its healing waters, and who return cured of their rheumatism, their dyspepsia, their torpid livers and their tender kidneys. The medicinal elements of the hot springs are principally iron, magnesia and sulphur. In this climate, the season of water ing places is prolonged.

THE SURROUNDINGS.

By consulting a map it will be apparent that Calis-

toga is destined to become a commercial town of importance. It is the center to which converge innumerable highways leading to many of the richest cultivated valleys of California.

INDUSTRIAL ENTERPRISES.

A new industry is now being introduced at the head of the valley of Napa, which will give easy employment to all the boys and girls, and contingently it will support other new industries. It is but the beginning of many others. Three miles below Calistoga is selected as the site of a large factory for saving and canning fruits and vegetables test now go to waste, and encouraging the production of more. In no part of California can these healthful elements of human food be cultivated more cheaply or more abundantly. Considering the depth of its rich soil, its prolonged season, and the extraordinary vegetable growth in this country, one acre may be considered equal to three elsewhere this industry is carried on in the Atlantic States. If irrigation be wanted, artesian waterflow may surely be found all along the valley, for it is backed by mountain ranges full of living waters.

MINES:

GOLD AND SILVER AND QUICKSILVER.

Calistoga is the center also of a great mountain range rich in mines of cinabar and silver. Already its furnaces are producing mercury, and the product is increasing yearly. A number of valuable mines are now being profitably developed in the region around the base of Mt. St. Helena, at Pine Flat, on the Great Geyser road, and near Billies' Mill, on the Clear Lake road. All of these are from ten to fifteen miles beyond Calis-

toga, to which point their products come, and from which their supplies are carried. The deposits of cinabar occur in well defined veins, and as they are now being scientifically developed they bid fair to rival in productiveness the celebrated mines of New Almaden.

CALISTOGA REAL ESTATE CO.

The splendid property above described, containing 2,082 acres, divided into town lots, suburban lots, country seats, hotel property and farm tracts, has been bought by the above named company, and is now offered for sale to the public.

The Capital Stock of the Company is

\$1,000,000,

Divided into 20,000 Shares of \$50 Each.

The sale of a certain number of shares has been authorized by the Board at the rate of

Twenty-five Cents on the Dollar, Making 12.50 Per Share.

By an arrangement between the former owner and the present company, no portion of this land or the proceeds of its sale, is consumed by expenses or in even the smallest degree diverted from the use and benefit of the stockholder.

Whoever buys Stock in the Company receives his pro rata share of this property, with its Crops and Rents in the meantime, without one cent of deduction for expenses of any kind, even including Taxes. And

this, too, no matter how valuable the property shall become.

Unlike the homestead schemes which have heretofore attracted our people, this plan gives homes and interests in and adjoining a town already built; where trade and growth are already assured, and where daily increase gives promise of greatly added value to all its property. It is a division of this ripened heritage that is now offered to the subscribers.

TRUSTEES:

E. W. BURR,
President Savings and Loan Society.

C. HARTSON,
President Bank of Napa.

J. B. FRISBIE,
President Vallejo Commercial Bank.

JULIUS WETZLAR,
Pres. Capital Savings Bank, Sacramento

COLONEL J. P. JACKSON,
San Francisco.

WILLIAM H. MARTIN,

GENERAL AGENT.

No. 1 Webb Street, Cor. California, S. F

PACIFIC RURAL PRESS

Volume IX.]

SAN FRANCISCO, SATURDAY, JUNE 5, 1875.

[Number 23.]

The Sweepstakes Thresher.

Now that the harvest is at hand the farmer begins to think of threshing his grain and having it ready for market. Among the different machines offered for this purpose, the manufacturers of the Sweepstakes claim that to be as good a thresher as is now in the market. The Sweepstakes has long held an enviable position and the late improvements which have been added within the year, render it to-day a better machine than ever before. Among other items of improvement we note the enlargement of the carrier. Where formerly a forty-two inch carrier accompanied a thirty-six inch cylinder, a forty-six inch carrier is now provided. These changes were especially designed for the benefit of the farmer of the Pacific coast, and will supply a want long felt here.

The Sweepstakes is manufactured of three sizes, as follows: twenty-four inch cylinder, having a thirty-two inch carrier; thirty inch cylinder, having a forty inch carrier; thirty-three inch cylinder, having a forty-three inch carrier. The twenty-four inch cylinder is more especially designed for farmers wanting a machine for their own use. It is hardly large enough for professional threshers. It will thresh of grain in ordinary good condition, well filled, about 500 bushels a day. To secure this amount an eight horse power should be used. The thirty inch cylinder is the most popular. It can be used with an eight horse power, but to reach its full capacity a ten-horse power should be used. It will thresh and clean fit for market from 600 to 800 bushels of wheat in a day, and of the smaller grains much more.

The thirty-three inch cylinder should never be used with less than ten-horse power, and to develop its full capacity steam power should be used.

An attachment is provided for threshing flax which will meet with favor from farmers engaged in the cultivation of that fiber. A fine screen riddle for cleaning flax accompanies the attachment.

The Carey power is an adjunct of the Sweepstakes and its popularity is such as to need no recommendation from us. It is furnished by the agents mounted or stationary. The accompanying engraving represents the Sweepstakes with stacker extended for threshing.

The agents for the Sweepstakes on the Pacific coast are the Messrs. Frank Brothers, having their depot at No. 206 Davis street, San Francisco, who are also agents here for the Walter A. Wood Mower and Reaper.

Although this is their first season in our business community, the Frank Brothers have already established an honorable reputation as fair dealing, reliable gentlemen. We understand they propose another year to enlarge their facilities and deal in a general assortment of agricultural implements. The growing needs of our farmers afford a wide field for such business, and the energy and tact already displayed by this young firm will insure for them a front rank among our agricultural implement dealers.

HEALD'S STRAW BURNING ENGINES.—Mr. J. L. Heald, of Vallejo, is building six straw burning engines of the following dimensions: cylinder, eight inches, twelve inch stroke, and sixteen-horse power; boiler nine feet six inches long, forty inches diameter, a twenty-four inch main flue, thirty-two two and one-fourth inch tubes seven feet long. Engine bolted on to side of boiler. Sheave governor and improved heater; adjustable exhaust. Some of the boilers of steel.

Blind Stagers and Sheep.

Mr. R. R. Edmonston, of Salinas City, writes for information in regard to some of his sheep which he informs us are "afflicted with what is said to be the blind staggers. The symptoms are, indications of the animals being perfectly blind in the early stages of the disease. Some times in a few hours and some times in a longer period of time, the animal staggers and falls, and from that time until death, appears to be in great pain, throwing the head far back between the shoulders and occasionally grinding its teeth."

At the State fair at Sacramento, in 1873, one of the most valuable ewes on exhibition there, belonging to Smith and Chapman's stock, was taken in precisely the manner described above, and of course attracted the attention of the experienced sheep men assembled there. They pronounced it a case of blind staggers, and bleeding was declared to be the only available

remedy, though the case had progressed so far that scarcely any hopes of recovery were entertained. The animal was accordingly bled at the nose, but the case resulted in death. The symptoms are supposed to indicate a rush of blood to the head, and if bleeding were resorted to in time, it would probably afford relief. It would at least do no harm. The administering of medicine to horses and cattle—the former especially—is quite practicable, but the most experienced managers of sheep are averse to giving them medicine. We have heard of several instances where valuable sheep have died under medical treatment, death being attributed to the medicine rather than the disease for which they were being treated.

It is possible that the sheep under consideration have eaten of the *Loco* or rattlesnake. We received about a year ago accounts of cattle and horses in the neighborhood of Salinas, the address of our correspondent, being affected in a manner similar to that described above in connection with Mr. E.'s sheep. The weed is said to be quite abundant in the vicinity of Salinas. It has caused a good deal of annoyance and some serious losses to stock owners in those parts. Medical science and farming experience have thus far been unable to supply a remedy. The only hope seems to be in destroying the weed.

This year the southern counties of California, principally Los Angeles, sent to San Francisco 5,380,000 oranges, 620,000 lemons and 80,000 limes. The consumption of California is about 10,000,000 oranges a year, and 5,000,000 are brought from Mexico and the Pacific isles.

More than 400,000 sheep have been moved from the plains, bound for the Manache Meadows, in Inyo county, near the head of Kern river.

City Water.

If California agriculturally is to receive the condolence of the world at large on the water score, what shall be said of the city of San Francisco? The people of this city are manifestly at the mercy of a set of men who have been found sadly wanting both in capacity and integrity. We are the ones to be pitied in the matter of water, and our agricultural friends will have a chance to display their magnanimity by withholding their claims for water until we know what our water kings are going to do with us. The concessions that the community has been called upon to make, first in regard to luxuries, then of the simple comforts of life have been yielded with so good a grace that now the necessities of life are fast getting under the control of rings and corporations.

It is quite apparent now that the city of San Francisco in obtaining its supply of water can only get it through the manipulation of a set of

That Wager.

Notwithstanding all that we have done in the way of precept and example, the readers of the Press will, somehow, continue to be—well, just about like other people. And now we are called upon to settle a wager between some of our Los Gatos friends, who send to us the following statement of the case:

"There is a dispute between two of us, which is left to you to decide. Is there a plant or tree that by touching of mankind closes its leaves, and on withdrawal of animal touch opens again. What is the name of the same? Does it not belong to the acacia family?"

There are several members of the acacia family of plants that close at the departure of the sun and open at its reappearance, but we are not acquainted with any that possess the peculiar sensitiveness referred to above. But the true sensitive plant, called *mimosa pudica*, is probably the one on which the wager is

pending. It is a small annual plant, inhabiting the tropics of America. It has a stem about a foot and a half high, covered with stiff hairs; the leaves are bipinnate in a somewhat digitate manner, and the flowers are collected in small pink balls. It derives its name from the irritability of its leaves, which collapse and fold up whenever touched. This sensitiveness, however, is not confined to the touch of man; the plant manifests the same irritability at a touch or shock from any other object. It will go through the same contortions if the focus of a burning glass is thrown upon the leaf. And not only does the leaf that is touched exhibit this sensitiveness; if the plant is perfectly healthy, all its leaves show a sympathetic movement, and at a shock of

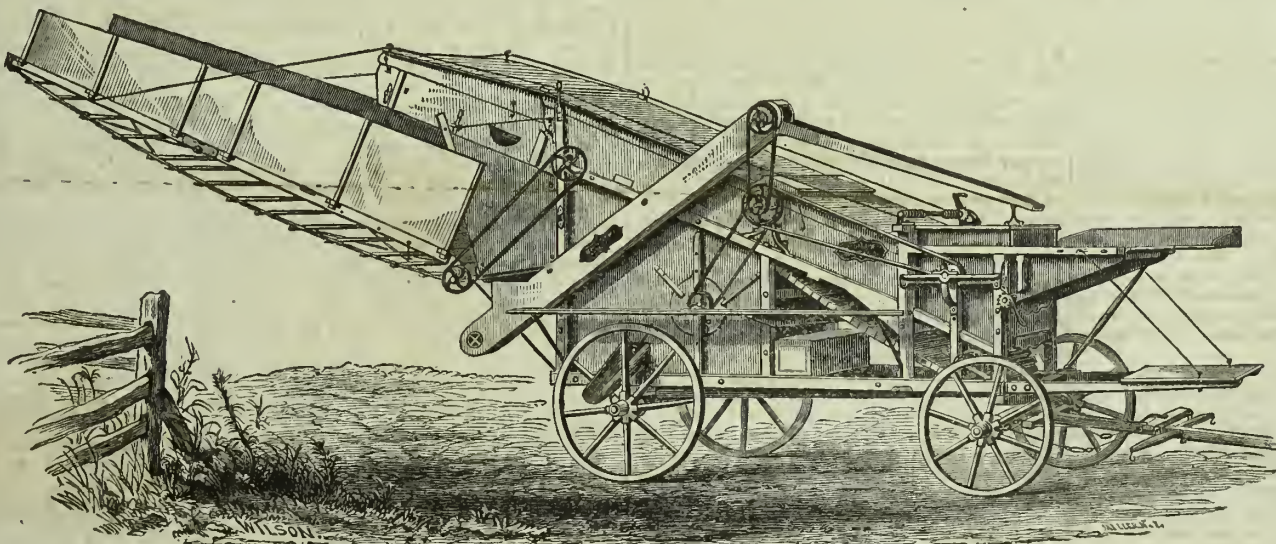
any degree of violence, every leaf will close and bend downwards.

In New Mexico there are large fields covered with this sensitive plant, and parties who have traversed them inform us that when they had passed over them, on looking backward, they could trace their course in the same way as they would through a meadow wherein the grass is heavily covered with dew, and where previous to passing through it the plants were covered with outspreading leaves, the stalks would now seem quite destitute of foliage. After a few hours the leaf resumes its original position.

We would, on this solemn occasion, admonish our Los Gatos friends—especially the losing parties—to abstain from betting. Not that the *RURAL PRESS* would affect the sensitive plant and close its leaves at the approach of man or woman either; but it will be seen at once that the subject in hand furnishes us with a text for sermonizing on the sinfulness of betting, though in this gay and happy season of picnicking it would be quite impossible to tone ourselves down to sermonizing. If we get a surfeit of picnics—which we don't believe will be the case—we shall very likely give our readers a surfeit of sermonizing.

The Napa Reporter thinks that probably the best crop either in Napa or Solano counties claims James S. Hill, of Suscol, as its fortunate owner. Mr. Hill has 325 acres in Solano, near Benicia, and 325 in Napa, at Suscol. Both of these crops are said to promise an unusual return in the shape of sacks of grain to the owner, who will commence threshing on the first of June.

The peach crop in the vicinity of the Ballona, Los Angeles county, is reported much better than usual.



THE SWEEPSTAKES THRESHER.

unscrupulous jockeys. There is plenty of water in the State of California to supply the wants of both city and country, and the people are willing to pay the cost of bringing it to the needed points. To the farmer abundance of water is the great desideratum. To the residents of the cities quality is as essential as quantity. They want the best and are willing to pay liberally for it, for they know that with water, even more than with other merchantable articles, the best is the cheapest. The health and even the morals of the community is at stake here; and though corporations and their political hacks may make their millions out of this water question, we shall expect to see this city make a "little fuss" if it is called upon, as present indications render probable, to drink the waters brought from ponds in the valleys that need all and more than all the supply that nature has meted out to them.

The Vallejo Chronicle says the last of the cherry crop on the Barker place was shipped on Tuesday; the last of the Sunnydale crop was shipped on the day previous. The owner of this famous orchard has shipped to the San Francisco market about 1,400 boxes of cherries aggregating fourteen tons in weight. The largest shipment made by him in one week was \$2,200 worth.

Tall oats is what the Napa Register calls a sample of that cereal grown on Robert Brownlee's place. They measure six feet and nine inches in height and have probably a foot more to grow.

The San Jose Advertiser says the apple crop in Santa Clara county will be a comparative failure. The grape is the only fruit that will come up to the average, and that will yield extraordinarily this season.

CORRESPONDENCE.

Cherry Vale.

[From our own Correspondent.]

EDITORS PRESS:—Those who have been about the depots, express offices and freight shops in this State and Nevada for the last few years, must have noticed a neat class of fruit chests, marked, "Cherry Vale, San Jose." And did it ever occur to their minds that there was some suggestive meaning in the neat and uniform style in which these chests were gotten up, painted and braided; all looking as much alike, wherever you saw them, as peas out of the same pod? That was just our experience years ago, when we first saw those "Cherry Vale" chests piled up about the railroad depots and freight shops. We got the idea, somehow, that Cherry Vale was some kind of a nice place, and that the proprietor, whoever he might be, had done things in a systematic and business-like manner, and we promised ourselves that some day, when we had leisure, we would hunt up this vale of beauty, and see if our impressions were correct. So it being just in the flush of the cherry season, and wanting a little ride in the country, we thought the present an opportune time to redeem our promise. So, yesterday afternoon, we drove to Mr. William C. Geiger's place, in the "Willows," two miles south of San Jose, and were pleased to find both Mr. Geiger and his estimable lady at home, with whom we spent an hour very pleasantly looking round over Cherry Vale. Nor were we long, looking over the grounds under Mr. Geiger's guidance, in concluding that our impressions were correct—every department bearing the marks of a skillful, systematic workman. Mr. G. is no haphazard farmer or orchardist. He did not set out with the vague idea that he would plant an orchard, and then depend upon what notions he could pick up among such neighbors as he could meet in town on Saturdays, as to the course he should adopt in training, pruning and cultivating his trees and vines. Nor did he turn his orchard into a chicken ranch or a stock farm, hoping to make up in that way what he might lose by fruit-growing. The fact is, Mr. G. is an orchardist and nothing else; he loves his business and has made it a life study. He had a plan—a clear and distinct idea of what he wanted to do, and has had the skill and perseverance to do it. Years ago, when this fourteen acre lot was all covered over with willows and cottonwood trees, there was a picture in his mind of what we see to-day. He had Cherry Vale then on the brain. For years ago, when he was shipping strawberries—the first fruit he ever raised on his place—his chests were marked just as they have been ever since—from Cherry Vale.

Mr. G. told us that after securing this piece of land, so well adapted to his purpose, he found after clearing it off, that although comparatively level, it required some grading before every foot of it could be easily and evenly irrigated, if ever necessary; and this he had done at an expense of several hundred dollars, before a tree was planted—not deferring, as many do, till after planting, when it never can be done satisfactorily.

The Cherry Vale of to-day is indeed a nice place; it consists of fourteen acres; surrounded on three sides with a four row belt of fine Lombardy poplar trees, planted so close together and forming a high wall of foliage so thick and uniform, that the passer by on the road can hardly get a peep at the beautiful vale within.

There are 1,250 cherry trees, from five to seven years old; 600 prunes, from three to seven years; and about 150 of apple, pear and peach trees; a vineyard of 3,000 white Muscat of Alexandria grape vines, three years old, which yielded 1,800 pounds of grapes last year. The land is a rich, sandy loam, retaining moisture remarkably well. Every foot of it is under cultivation, the trees, vines and vegetables all looking well. But the peculiar attraction of the place is the cherry orchard. It is one of the model cherry orchards of the valley, and for its size, perhaps, cannot be surpassed by any in the State.

On entering the orchard the visitor is at once struck with the singular and very beautiful appearance of the trees. The trunks, from the ground up to where the limbs spread out for the top, are literally covered all round with leaves, completely sheltering the bark on the body of the tree from the rays of the sun. Of all devices for protecting trees from damage by the sun, this is the most beautiful and the best—it is nature's own covering. When planting trees, the side buds are carefully preserved, not to be grown into branches and limbs, but to be pinched or cut back to a few inches, leaving just wood enough to clothe the trunk of the tree with a covering of its own leaves.

Mr. Geiger claims to have originated this mode of trimming cherry trees, and as evidence of its value, we noticed all the best fruit-growers in the neighborhood were adopting it. Of the 1,250 cherry trees, we did not see one but what looked vigorous and healthy, all making a splendid growth, and we certainly never saw a large number of trees covered uni-

formly with such luxuriant foliage from the ground up to the topmost branches.

As to fruit, the frost cut off over half the crop. Some trees are quite full, others have only a small fraction of a crop, while others are enjoying a summer's rest and growth, unencumbered by a single cherry.

Besides fruit trees, Mr. G. is cultivating a large number of trees and plants as novelties. He has one black walnut tree, eleven years old, which is the parent of sixty-four five-year-old trees—all bearing nuts this year. He has also a few English walnut trees bearing this year; one large American chestnut, full of bloom; thirty persimmon trees, ten years old, bear every year, and the fruit is as good as at the East. He has a lot of fifteen or twenty wild cherry trees, quite large—they bear abundantly. Has half a dozen paw-paw bushes which bloom every year, but bear no fruit. They look rather sickly, as if out of their element. He has peach trees growing healthy, and five bearing well, and many other trees from the Eastern States.

Mr. Geiger's arrangements for irrigation are as complete and convenient as everything else on the place. He has a shop and engine house with a small but efficient engine for pumping water from two wells. Everything here is substantial, neat and in order.

He has lately refused \$11,500 for Cherry Vale. This may give some idea of the value set upon an orchard such as his; for all other improvements, such as buildings, etc., are of little value; the land and trees that have been grown upon it within a very few years, constitute the main wealth.

To those who contemplate planting orchards—especially of cherry trees—we would recommend a visit to Cherry Vale. G. W. M. San Jose, May 28th, 1875.

Live Fences Wanted.

EDITORS PRESS:—In the RURAL PRESS of May 22d is a communication from T. B. Blake, of Kansas, offering to establish live Oage orange fences, for the sum of fifty-five cents per rod. If he really means business, here is the place for him to start. We have the best of soil, plenty of water, a very healthy climate, and last, though not least, a live people. This portion of Tulare county, between Cross creek and King's river, and capable of being irrigated by the waters of the above streams, contains about 200 square miles of as good agricultural land as can be had in the State. Nearly every quarter section of government land is already settled upon, and much of the railroad land is being bought up by actual settlers. The price of lumber almost precludes building board fences, while the necessities of the proposed business of the settlers (alfalfa, sheep, hogs, etc.) demand fences of some kind. The great expense of getting grain to market makes raising it unprofitable. Less than three years ago there was scarce a settler in this part of the county. Now, not an acre of land can be had, except from second hands. Within the last two years there have been five large irrigating ditches built, averaging thirty feet wide and about twelve miles long, with numberless side and distributing ditches, by the settlers themselves, without one dollar assistance from outside parties. All of the five ditches have water running in them now to some extent, but by another season they will send their life-giving contents all over this favored land.

We have three postoffices, Grangeville, Joneo and Lakeside. The last Board of Supervisors completed the dividing of the settlements into school districts, in all of which schools will be kept as soon as trustees can be elected and teachers procured.

If Mr. Blake will communicate with me direct, requesting more specific information respecting this county, I shall be happy to give him all the information I can in regard to the fence question. C. W. CLARKE. Lakeside, Tulare county, May 27th, 1875.

Prospects in Southern Ohio.

MESSRS. EDITORS:—Would an item regarding crop prospects in this portion of the Great East be unwelcome to the readers of the Press? Just now they are anything but encouraging. The past winter was, as you are aware, very severe, and our weather prophets promised, and we all looked eagerly forward to an early spring; but we were sadly disappointed, for it has been the coldest one ever known here. On the 18th ult. the mercury stood at 16° above, a depth unprecedented for the time of year, and as a consequence the fruit will be an entire failure, not only the buds being frozen but even the foliage of the trees, and also the foliage of the forest trees, which turned completely black and is just beginning to have a slightly green appearance again. The weather since then has been very cool and dry, which is very damaging to growing crops. The wheat was badly hurt by the winter, and with this weather it will not "make the seed," and the oats and grass are in the same fix. The worst is that this seems to be a pretty general thing over the whole country, from what I can learn, and it will certainly not tend to improve trade and lighten the hard times under which our people have been suffering. Our hopes are now centered upon the corn and potato crops; if they fail we are "at the end of our string." Most of the corn is already in the ground. D. T. Cedar Grove, Brown county, Ohio, May 16th.

The Farmer of the Yosemite Valley.

The newspapers bring us the sad news of the death of the pioneer settler in the beautiful valley—the genial, kind hearted, fruit and flower loving J. G. Lamon, who had become a part of its history and tradition. Under the recent arrangement with the commissioners, the original settlers and claimants had been paid for their improvements and were expected to leave. Mr. Lamon alone obtained a lease directly from the officers in charge, which gave him for a term of years undisturbed possession of the land to which he had become so greatly attached. There was a general wish that the simple hearted old man should enjoy, as long as he might desire, the garden of herries and snug little orchard he had planted in that far away corner of the earth. Hundreds who have enjoyed the hospitality of the Lamon garden, will grieve with the sighing pines and many-voiced waterfalls, that the master's hand will tend it no more.

Mr. Lamon was not only the earliest real inhabitant and cultivator of the valley, but he is the only one whose improvements have done nothing to mar its natural beauty. Looking down from Glacier point, the brown log house which was his summer abode, nestled under the towering yellow pines, might have been mistaken for an ant hill, the straight lines of orchard growth and strawberry patch revealed only a touch of a human hand, like a caress upon the mellow earth. The fences were so hidden with ferns, the wilderness so near and abundant, that sitting in the log house door, eating raspberries from the broad rubus leaves, one could never wish that the valley had been left to itself from the beginning. The "mansion" was in keeping with the man, for his was an out of door life, and the whole valley was his home. There was a generous fire place, a couch in the corner, some shelves for books and magazines, hiding places for his winter stores of apples and potatoes; he had a great deal of company, mostly squirrels and birds. There was nothing of the cynic about him, though he lived alone in this bachelor's cabin, he was as open as the day, unsuspicious and sincere. He never attempted to analyze the spell of beauty which chained him to the awful loveliness of those waters and rocks, but smiled back at them with the simplicity of a child, while he talked of the sweet grasses and fruits he was coaxing to grow. He prided himself greatly on a seedling apple, to which some hee or humming bird had imparted a vicious flavor unknown in the lower valleys. He had invented a strawberry, and shared the secret of it with a lady friend who had promised to introduce it to the world of fruit growers. He had a simple device for turning the River of Mercy upon the roots of his trees and berries during the summer heat. Such art as he had, was nature itself. He loved good books, and enjoyed the rural papers and magazines, which helped to shorten the winters for him.

He had one unrealized ambition—"to grow grapes and sweet corn."

Thinking of this good friend, to whom I owed much during two golden summers spent in the valley, and whose quiet enjoyment of town life last winter was another remembered pleasure, I feel how great are the lives which, first pure, then peaceable, are in full accord with the ways of nature and providence.

Mr. Lamon loved the Yosemite through sixteen summers and winters; it was fitting that he should drop into the lap of mother earth like the crimson maple leaves, and he laid down to his last sleep with these grand walls for his only monument. Over the place of his rest the monarchella breathes the breath of balm; the long needles of the yellow pine and the plummy litocedrone wave and mingle in the solemn requiem which the great mother is forever singing for the children of her love.

JEANNE C. CARR,

Oakland, May 26th, 1875.

San Marcos.

EDITORS PRESS:—The husbandmen are busily engaged gathering in the new mown hay, which is comparatively light this year, although as a general thing, the crops will be adequate to the demand. This portion of the county is not an agricultural district; people depend mainly upon stock raising for a livelihood. The experiment is being made of raising grain to some extent, but with what success I am unable to say with the unfavorable season at hand. I think the crop will mostly be cut to hay, and undoubtedly will pay much better than a grain crop of a favorable season. There seems to be considerable inquiry among the flock masters for their herds, some have already started for the Sierra Nevadas, while others are seeking the vacant spots in the Coast Range. The great trouble of this county at present is that it is getting overstocked. People are trying to keep two sheep upon the same amount of land that will only sustain one in a good season, which makes short picking in an unfavorable year. This rule holds good with other branches of stock farming. A. T. FOSTER. San Marcos, May 21st, 1875.

The Reclamation of Our Salt Marshes.

EDITORS PRESS:—The success of the reclamation of our fresh water tide lands is encouraging considerable activity in the reclamation of our salt marshes also. Very few of the enterprises have as yet progressed far enough to determine fully the productiveness of reclaimed salt marshes; but results have been obtained in one or two instances, which give great promise for these lands. The most satisfactory and thorough experiment yet made, has been upon the ranch of Mr. George Center, adjoining Alviso, at the southern end of the bay. This tract, containing about 300 acres of salt marsh, was leased in the summer of 1872. The original levee was small, and it was enlarged to its present dimensions, viz.: fourteen feet base, six feet crown and three feet in height, well settled. No water has come over this levee, and efficient flood gates are placed to drain the land from surface water through a single inside ditch. The ditches are, however, too few and shallow for any thorough drainage.

Plowing was commenced soon after reclamation, but no extensive sowing was done until the second year. During that season about 160 acres were planted in wheat. The wheat grew well and would have yielded good grain; but the nearness of the San Francisco market made a hay crop more profitable, and it was cut for hay. The average yield per acre was two and one-half tons of good wheat hay. Some choice spots yielded as high as four tons per acre. The price for which the hay was sold was \$17.50 per ton. Mr. Center has reduced all his tract to cultivation this season, and the prospects are flattering for as good a yield as that of last year.

Mr. Center ascribes his success on this tract of salt marsh to the facilities of irrigation had from a small creek which runs through the place. The water of the creek is derived from artesian wells in the neighborhood, and the volume is ample to flood the adjacent marsh. Having so abundant a supply of water, Mr. Center adopted the easier, though less satisfactory method of profuse irrigation. Irrigation, agricultural writers quite generally assert, brings about a result very similar to thorough drainage. It dilutes any stagnant water and counteracts its evil effects. It enlivens the soil and gives warmth to the cold dead earth. On the other hand, thorough drainage produces like effects in a much more superior manner and degree. The poisoning, chilling dampness of the subsoil is taken away and light and heat permeate deep into the soil, and impart life and vigor to the struggling plants. In other words, irrigation annuls evil, has a negative effect; drainage removes the evil, assists and vivifies the plant.

The difference was observable even in Mr. Center's crops. The grain that was sown in high, stand and color, grew upon the top of the ridges into which the field was plowed, where the soil was thoroughly drained and least subject to the effects of irrigation. The land was plowed and harrowed in the ordinary way. In some places the ground was quite soft and horses passed over it with difficulty. That which stood for two years drying, cracking and bleaching in the sun, yielded much more readily to both plow and harrow.

The financial outcome is as follows:

2½ tons of wheat hay, @ \$17.50.....	\$43.75
Cultivating, harvesting, freighting, etc., per acre.....	21.00

Net profit per acre..... \$22.75
This showing is equal to that of the highest priced bottom lands in the State, and the crops are subject neither to drought of the uplands nor the floods of the rivers. These lands therefore yield not only largely, but certainly, and ignorance regarding them is the only reason why so much salt marsh land has heretofore lain unreclaimed in our bay. The prices compared with their apparent productiveness is merely nominal unreclaimed, they are held at from \$10 to \$20 per acre, and the cost of the most extensive reclamation now going on upon this class of land, is at the rate of \$10 per acre.

There are works of reclamation now in progress near Alviso, and also upon the Sonoma meadows in Napa and Sonoma creeks. The former are being done by an English company, represented by J. Barr Robertson, Esq. The latter are the undertaking of San Francisco capital, of which Mr. Geo. S. Ladd is the active representative. These two enterprises will reclaim about 35,000 acres of land in no way inferior to Mr. Center's tract. Mr. Ladd has obtained flowing water in wells, varying in depth from 150 to 230 feet, whence may be had an unfailing quantity for irrigating and other farm and domestic purposes, so that either irrigation or drainage may be adopted at will.

Since the foregoing, I have been informed that J. Ross Browne, Esq., will shortly begin the reclamation of a tract of salt marsh, also near Alviso, in conjunction with Eastern gentlemen recently arrived, who were induced to purchase an interest in Mr. Browne's land by the success attained on Mr. Center's tract.

L. O. McAREN.

San Francisco, May 25th, 1875.

GRAN ABOUT DENVERTON.—EDITORS PRESS:—The grain is better here than for the last two years; the summer fallow thick and heavy-headed, while the winter sowing is better than for the past five years. Last Monday we were all in extreme excitement over fire in grain fields in the Montezumas that consumed perhaps about 100 acres. Brave and hard fighting was done by about fifty men, and all felt glad that no greater damage was done. Harvesting is right on hand—some barley cut. Consider me a life subscriber. R. H. BARKWAY. Denverton, Solano county, May 29th, 1875.

SHEEP AND WOOL.

Sheep Raising.

[By Col. E. S. STOWELL.—Continued.]

Spain's Golden Era in Sheep Raising.

In the eighth century the Moors conquered a portion of Spain and "found it fruitful in corn and pleasant fruit and glutted with sheep." This warlike and enterprising race were distinguished for their luxurious customs, and a fine and expensive wardrobe. In the thirteenth century Spain became renowned for her woolen manufacturers. Seville alone containing no less than 16,000 looms. Woolen manufacture became a source of great wealth, and sheep culture was exalted to the highest position of the land. The merinos of Spain were of two classes, the estates, or stationary, and the *transhu montes*, or migratory. These latter were superior, probably, from the weeding out process the Spanish shepherds had adopted from the Romans, as they did also their custom of keeping the sheep always in equitable climate, and of subjecting them to a sweating process before shearing to soften the crust formed on the end of the wool, and to make the whole fleece soft and pliable.

The practice of killing all lambs not possessing the proper characteristics, the ratio of which was probably not less than 50 per cent., the remainder having the benefit of two mothers, and the long journey of 400 miles taken twice a year, in the spring, to the pastures of Cervera, Navarre and the Pyrennes, in the North, and in the autumn of the confines of Estramadura, Audalusia and New Castile, in the South, also tended to select only the strongest and best, and much of the noted hardihood of the Spanish merino, and its descendants, is no doubt owing to this treatment. So highly were sheep esteemed, and so powerful became their owners, that they were enabled to force upon the people a most oppressive code, by a tribunal called the Council of the Royal Troop. It established a right to graze on all open and common land that lay in the way; it claimed also a path ninety yards wide through all enclosures and cultivated country; and it prohibited all persons, even foot passengers, from traveling on the roads while the sheep were in motion. As the migrations were made at a season of the year when the crops were most liable to injury, the damage must have been incalculable, and the prestige of the flock-master unlimited.

In 1576 there were annually exported from Spain to France about 40,000 sacks of wool, at \$45 per sack, and to Italy a finer sort at \$112.50 per sack. But the Spaniards in their bigotry expelled many thousands of the Moors, industrious people, artisans, indeed 600,000 in three years, and Seville's 15,000 looms dwindled down to sixty. The glory of the Saracen had departed, and with it the woolen industry of Spain, and her sheep soon followed. Spain saw too late its fatal error, and France, Germany and the United States were ready to take advantage of it, although in various degrees. Naturally, it would be supposed that France, from her proximity to Spain, would be the first to avail herself of the superiority of the merino, and early been second to none for the beauty and value of her sheep and wool. Indeed, measures were in progress at the opening of her sanguinary and sweeping revolution, to secure the prize; but that so far diverted the attention of the government and people that the only successful effort of national importance was the flock known as the Rambouillet. This flock gradually increased in numbers and quality, fostered by the government and that fine care which has made the French system so renowned. The average weight of fleeces was raised from six pounds nine ounces in 1791, to nine pounds in 1801, a period of ten years, and to fourteen pounds for rams and ten pounds for ewes in the next twenty, and in softness, fineness, length and strength of fiber, it was second to none.

From that time to the present the strides of sheep, wool and woolens of France, fostered by a discriminating and enlightened policy of the government and people, have placed her high in the scale of excellence among the wool nations of the earth.

(To be Continued.)

Eastern Wool Markets.

NEW YORK, May 29th.—The aggregate business for the week in wool has been fair, but as regards prices nothing favorable can be said. Manufacturers enter the market only when compelled to, and their purchases, owing to the depressed condition of the goods market, are of the smallest dimensions. There is a decidedly weak tone to the market, caused by anticipated heavy receipts of several clips, but more particularly California spring, and for the latter prices are at least one to two cents below those ruling a week ago. Sales have been made of new Port Philip as low as 47c, and from that figure up to 51c. An auction sale of Sydney on the 26th inst., was only a partial success. In the cargo there were 1,283 bales, but only 551 were sold, the remainder being withdrawn in consequence of the price being unsatisfactory to the importers; though it is the general impression among

the trade that they will not have an opportunity to realize such full prices again. The range for that sold was 41½@48½c. New clip from Georgia is being received, and finds purchasers at 38@40c. New Texas is slow of sale, owing to a difference in the views of buyers and sellers. Some small lots of Kentucky fleeces have been received, and one parcel of 7,000 lbs. unwashed combing sold at 50c. The sales for the week are 350 bales Cape, in bond, for export to Canada, at 17½c, gold; 300 do. Australian, at 47@51c, for clothing, and 55@58c for combing; 115 Donkoi, on private terms; 150,000 lbs. new spring California, at 22@24c for short and burry lots, and 30@35c for choice free; 75,000 lbs. do. old stock at 28@30c; 100,000 lbs. fall do. at 15@20c; 3,000 bags scoured at 62@70c; 120,000 lbs. Texas, at 29½@30c for Western, and 28@34c for Eastern; 256 bags super pulled, at 46@48c; 50 do X do., at 45c; and 25 do. No. 1 do., 40 do. combing do., 50 do. lamb's do., on private terms.

Boston, May 29th.—A fair average business has been done in wool, so far as the amount of sales is concerned, but trade continues quite dull and is unsatisfactory, manufacturers purchasing only for their immediate wants. Fine fleeces are in better demand, but remain without improvement. Sales have been 13,000 lbs. Ohio and Pennsylvania fleeces, at from 50 to 70c., including choice XXX Pennsylvania at 57c, but mostly XX Ohio and Pennsylvania at 52½@53c; and these are now the outside figures for choice. XX Michigan and choice fleeces have moved off slowly, and at comparatively low prices. The demand for pulled wool has been fair, and prices continue steady. Supers, ranging from 50 to 56c are most in request. California wool has been arriving quite freely, and the stock is now increasing quite rapidly. Sales have been again large, comprising 430,000 lbs., at 22@35c for spring, and 22½@24½c for fall. Some of the recent arrivals have been of a very handsome quality, and in consequence a higher range of prices has been sustained. Although the market is considered easier for this description, to buy, and there is more pressure to sell, good average lots will not bring over 30@32c up to 35c for choice; and any advance on the latter rate is obtained only for fancy lots. There have been sales of Michigan at 47½@50c. Western and other fleeces, at 42½@48½c; combing and delaine, 55@56c; unwashed combing, 42@50c; scoured, 49@55c; super X and pulled, 37@51c.—Call.

THE HORSE.

Rheumatism in Horses.

Inflammation of the muscles and tendons in the horse is much more common than is generally supposed, and many obscure forms of lameness may be considered to belong to this disease. Very often a horse after a wet or cold day's work comes out of the stable "as stiff as a poker" and scarcely able to walk, upon which his master fancies that he will be laid up with severe lameness for some months; but on entering the stable next morning he is surprised to find his horse is quite right again and fit for work. The great peculiarity of these attacks of rheumatic lameness is their liability to shift and change, the horse on one day being lame in his near fore leg and perhaps on the next refusing to put his off hind foot on the ground. But sometimes the disease is persistent in one limb, though varying in degree; and here the horse always trots lame on one leg; at other times both fore limbs may be affected either in the shoulder or in the feet; but the difficulty is to find out the seat. If before, it is usually in the shoulder or arm, and if behind, in the muscles of the hip. Shoulder lameness, when present, is often rheumatic, but in some cases it is the result of a strain; in either case, however, requiring the same treatment.

Lameness from rheumatism may almost always be known by the horse lifting his leg, whether hind or fore, with difficulty; whereas in the disease of the foot or the lower part of the leg he lifts it readily enough, but puts it down with great caution, and finches when it is on the ground. The toe is also dragged on the ground in rheumatism, which causes actual loss of action or power; whereas this dragging is never seen in the fore foot from any other cause. In the rheumatic hip the same kind of defective action is seen, and the hind leg is not brought forward with sufficient power or freedom.

In every case the treatment consists in rubbing in a stimulating liniment, such as the following:—Camphor, one ounce; oil turpentine and spirit of wine, of each three ounces; mix, and apply a portion night and morning; it should be rubbed well in with the hand. The horse's general health should be attended to, and his stomach set right by stomachic balls, if necessary; or a fever ball, and the following, given every other night, will sometimes give relief: Nitrate of potash, one ounce; camphor, one dram and a half; calomel and opium, of each one scruple; linseed meal and water, enough to form a ball.—*Prairie Farmer*.

An Illinois farmer determines the age of animals over nine years old by the following method: After the horse is nine years old a wrinkle comes on the upper lip, and every year thereafter he has one well-defined wrinkle for every year after nine. If, for instance, a horse has three wrinkles, he is twelve; if he has four, he is thirteen. Add the number of wrinkles to nine and you have it.

WHAT IS A BLOODED HORSE?—He is a horse having more than an ordinary amount of drops or pounds of blood in his system, in proportion to the size and weight. The large amount of blood acts upon his system through a large heart, and correspondingly large arteries and veins; and, put in motion, it acts in driving him to speed, the same as an increased amount of fire under a boiler drives off a greater amount of steam, and makes the machinery go faster. This large amount of blood also acts in refining the skin, making it and the horse finer than in a horse of less blood; it refines and gives elasticity to the muscles, the feet, etc.; it refines the entire horse, making strong the valuable parts, and fitting the whole system for speed and endurance.—*Live Stock Journal*.

USEFUL INFORMATION.

TO FORM PERFECT SQUARES.—Squares can be tested with the dividers by drawing two circles, one within the other, from the same center, of sixteen and twelve inches diameter respectively; then set the dividers to ten inches, insert one point in any part of the outer circle, and mark the point exactly where a circle (drawn with the dividers in this position) would intersect the inner circle; now draw a straight line through the center of the circles and through the point marked in the inner circle; and through the outer one, another line starting from the point where the dividers were inserted in the outer circle through the center of the circles, until the outer circle is reached. If this is done exactly, the points where those lines intersect the outer circle will form the corners of a perfect square whose side is 11.3137 inches. If the square is correct, it will fit the square thus formed and also the lines in the center, which divide the circle into four equal parts, and the angles must be ninety degrees. This is based on the rule for finding the hypotenuse of a right angled triangle, thus 6 square=36 and 8 square=64, sum 100, the square root of which is ten. This is sometimes called the six, eight and ten rule for squaring buildings.—*Ex.*

BALLOONING.—The following practical hints on ballooning are published by Donaldson the aeronaut, in a little paper edited by him and named the *Aerial*. The lifting strain of a balloon is principally upon the net. If a balloon will stand inflation, it is safe in mid-air. In winter, the atmosphere is warmer one mile above the clouds than it is at the earth's surface. The weight of a balloon to carry one man, including net and basket, should not exceed 80 pounds. A cotton balloon will last for about sixty ascensions. A balloon thirty feet in diameter undergoes a strain of 1½ pounds to the square foot of surface. Gas which at the earth fills the bag only half full, will, at an elevation of 3½ miles, expand so as to fill it completely. One thousand feet of coal gas will raise 38 pounds. Gas which gives a poor light is the best for aerostatics. Kites can be used to steer by sending them up or lowering them into currents of air traveling in different directions from that in which the balloon is sailing.

WATERPROOF PAPER.—The French papers speak of a method of rendering paper extremely hard and tenacious by subjecting the pulp to the action of chloride of zinc. After it has been treated with the chloride it is submitted to a strong pressure, thereafter becoming as hard as wood and as tough as leather. The hardness varies according to the strength of the metallic solution. The material thus produced can be easily colored. It may be employed in covering floors with advantage, and may be made to replace leather in the manufacture of course shoes, and is a good material for whip-handles, the mounting of saws, for buttons, combs and other articles of various descriptions. An excellent use of it is in large sheets for roofing. Paper already manufactured acquires the same consistency when plunged, unsized, into a solution of the chloride.

DETECTION OF BEEF FAT OR LARD IN BUTTER.—Mr. Stoddart gives the following method of distinguishing between butter and other fats of animal origin. A quantity, say fifty grains of butter, is put into an ounce bottle, half filled with ether, and the mixture well agitated. If the butter be genuine, perfect solution of the fatty matter will take place, and salt and water will be separated, together with curd, which is occasionally present to the extent of eight or nine per cent. The salt and water may be readily recognized, and the curd may be proved such by heating a small portion on a slip of glass, when it will dry and fall to powder. If beef fat or lard be present, they will not dissolve in the ether, but fall to the bottom of the solution; by the application of heat, as in the case of curd, the fatty character of these substances is at once shown by their liquefaction.

TO PRESERVE POSTS.—The *American Chemist* says that a Western farmer discovered many years ago that wood could be made to last longer than iron in the ground. Time and weather, he says, seems to have no effect on it. The posts can be prepared for less than two cents apiece. This is the recipe: Take boiled linseed oil and stir into it pulverized charcoal to the consistency of paint. Put a coat of this over the timber, and, he adds, there is not a man who will live to see it rot.

ALCOHOL—CURIOUS CHANGE OF MEANING.—Dr. Richardson in a recent lecture gives some information, says the *London Medical Record*, on this much used word. He says that the first employment of the English word alcohol is obscurely recorded. Bartholomew Parr, one of the most learned of scientific classics, taking the usual derivation of the word from the Arabic Al ka-hol, a subtle essence, says it was originally employed to designate an impalpable powder, used by the Eastern women to tinge the hair and margins of the eyelids. As this powder, viz., an ore of lead, was impalpable, the same name was given to other subtle powders, and then to spirit of wine exalted to its highest purity and perfection. The earliest systematic and truly scientific use of the term that Dr. Richardson could discover is in Nicholas Lemert's "Course of Chemistry," published in 1698. Then the word is used as a verb, "to alcoholize," and the definition of this is said to be "to reduce to alcohol, as when a mixture is beaten into an impalpable powder." The word, says Lemert, is also used to express a very fine spirit, "thus the spirit of wine well rectified is called the alcohol of wine."

PRAIRIE CHICKENS AND GRASSHOPPERS.—While naturalists and entomologists are puzzling over the discovery of some plan to prevent the recurrence of the grasshopper plague in the Western States during next fall, it would be well for them to take the immense yearly slaughter of the prairie chickens into consideration. The numbers of these birds which are slaughtered each winter by trapping after heavy snow storms, and find their way to the markets, are something enormous; and as the grasshoppers constitute a great part of their natural food, it seems not improbable that the disappearance of the former might exercise a very appreciable effect in the increase of the devastating insects.

THE expensive part of the Daniells battery is the copper plate, the cost of which can be reduced two-thirds in the following manner: Procure sheets of the ordinary sheet tin of commerce, brighten, and plunge into a very weak copper-plating solution, in connection with a voltaic battery of a very low quantity. In fifteen minutes a tenuous film of copper will have been deposited on the tin and the plate can then be bent into shape and used in the ordinary manner.

THE discovery of "plate glass," which was accidental, was made in the year 1683, by a man called Thevart. It is attributed to the breakage of a pot containing some of the melted material, a portion of which flowed under a large flag stone, which, when subsequently removed, was found in the form of a plate. This suggested the idea of casting it in plates; a patent was soon obtained, and works were established in Paris.

ACCORDING to Botger, nickel is better adapted than any other metal for galvanizing iron, and it resists the action of oxidation much better than gold. The latter metal is very porous when it is in a thin layer; nickel, on the contrary, forms a thoroughly impermeable coating.

FRENCH papers speak of a newly invented texture, a kind of cloth manufactured of the down of chickens, ducks, etc. It is waterproof, and may be dyed in all the different shades. The experiments have met with great success.

EVERY passenger car on the Illinois railroads is by law compelled to be furnished with a woodman's ax, sledge-hammer, a hand saw and two leather buckets.

DIAMONDS FROM SUGAR.—A French chemist has so succeeded in his experiments as to have reasonable hopes of producing at least black diamonds, if not colorless ones, from sugar. He has already obtained a carbon cylinder hard enough to cut glass, by exposing the perfectly burned sugar to a temperature of 1,800 degrees Fahrenheit in a closed vessel without access of air. It will be an interesting development, as far as regards the production of sugar-yielding crops if this experimenter, shall succeed fully in his designs, and cane and beet come to be grown with a view to their final transformation into diamonds. Truly we are living in a wonderful age.

A BOILING LAKE.—Mr. Joseph Sturge, of Birmingham, announces that a discovery of some considerable scientific interest has been made in the Island of Dominica. Drs. Free-land and Nicholls, Captain Gardiner, and Mr. Watt, exploring the steep and forest covered mountain behind the town of Roseau, came upon a boiling lake about 2,500 feet above the sea level, and two miles in circumference. When the wind cleared away for a moment the clouds of sulphurous steam with which the lake was covered, a mound of water was seen ten feet higher than the general level, and caused by ebullition. The margin of the lake consisted of beds of sulphur, and its overflowing found exit by a waterfall of great height.

A STOCKTON paper says: S. S. Burge handed us, Saturday, a bunch of wheat picked from a field on George Mosher's ranch, on the Calaveras, which is the best we have seen this year. The heads average six inches in length. It is of the "White Australia" variety and is grown on irrigated ground.

PATRONS OF HUSBANDRY.

THE HEADQUARTERS of the California State Grange are at No. 6 Leidesdorff street, in rear of the Grangers' Bank of California, No. 415, California street San Francisco.

To the Stockholders of the California Farmers' Mutual Fire Insurance Association.

NOTICE.—There will be a meeting of the stockholders of this company on Tuesday, June 1st, 1875, at their office, No. 6 Leidesdorff street, San Francisco, for the purpose of increasing the capital stock to Three Hundred Thousand (\$300,000) Dollars. By order of Board of Directors.

W. H. BAXTER, Secretary.

Secretaries will be supplied with a printed list of subscribers for this paper upon sending a list of their office within the range of their Grange. Also with blank reports, etc., for clubs.

Grange Directory.—A full list of officers of the State Grange, Deputies, names of Councils, Subordinate Granges, Masters and Secretaries will appear in this department on the first Saturday of each month.

The San Lorenzo Picnic.

The basket picnic announced to come off at the San Lorenzo grove on Saturday, May 29th, did come off and was just what it was expected to be—as happy a social gathering as could be imagined. The grove was in prime condition, so were the people who assembled there. The party excelled in numbers the autumn picnic held there last season. The Committee on Arrangements had performed the task assigned them in an efficient manner, and Brother Joel Russell, of Eden Grange, who was Director of the Ceremonies—though "ceremonies" is too straight laced a word for this occasion—filled his position to the satisfaction of all present, and done much toward sustaining the animated character of the occasion. Willis' band of San Francisco was present, consequently the music was all that could be desired. Brief and pointed addresses were given by Brothers Russell, Imman, Webster and Earl. Several pieces of Grange music were sung, after which Sister J. V. Webster, of Temescal Grange read a poem written by her for the occasion and entitled "The Patron's Declaration of Principles," the conclusion of which we give below:

From every rustic threshold in the land
The ring and chime of school-bell shall be heard;
Where gleeful millions of the country, pride
Shall round the reckless spirit of the mind,
And burn out all the heresies of the age
With the spreading flame of truth and wisdom.

Since all pure wealth and progress of the age
Are the fruit of mind and busy hands,
Surely idleness is the avenger's rod;
For all things were fashioned by hands divine
And earnest toil was ordained for us—
Therefore, to labor is to worship God;

And thus we stand united for the right,
And thus we live and labor for the light
That leads to peace and to our country's love;
And here with God's green earth beneath us,
And flower embowered roof above us,
We pledge to each to thus forever stand,
In friendship—heart to heart and hand to hand.

Mrs. Carr was present and favored the assembled Patrons and their invited guests with one of her sprightly pointed speeches. "An unfair advantage," she said, "was taken of the fact that a Temescal Granger would not shirk whether the holes were round or square into which they were to be fitted. They had been singing 'The Farmer's the Chief of the Nation,' and she hoped it would prove to be so. It reminded her a little of a protracted meeting in England, where the pious folks resolved: 1st, That the earth is the Lord's and the fullness thereof, 2d, That the fullness of the earth belongs to the saints, 3d, That we are the saints.

"Now, if we are not the saints, or the chiefs of the nation, we are fast becoming such, by virtue of obeying the law of brotherly love, and by learning to act with unity and efficiency in promoting the interests which involve the welfare, not of a particular sect or locality, but of the whole country. The National Grange was a big wigwag, and every State found her children crowding into it, and yet it was only about six years old. Our State Grange was not quite two years old—the next month would bring the anniversary of the organization at Napa, when Brother and Sister Dewey, for Temescal, with some thirty-five other Granges, represented by their Masters and Matrons, were convened. Now we have 255 Granges and a membership of 20,000 probably, while the National Grange counted up among the millions. There are those who think the usefulness of the Grange is past, in many States the Granges have got what they asked for; that is what Mr. Charles Francis Adams thinks, but they are all mistaken who take this view of our Order. Its material advantages have been great, the Farmer's Union saved us a million of dollars during its short lived existence, and our business operations have been conducted on a much larger scale, but these occasional savings and business facilities even, are but a small part of the benefits of the Grange."

Mrs. Carr said, "Let me speak for the women of the Grange. We are attached to it, because here for the first time we find ourselves upon true equality, we find a sphere not narrowed by custom or prejudice, based upon

women's social value. You are not aware of the hold this movement has taken upon the hearts of your wives and sisters. You are not aware, perhaps, that if all your great questions of transportation and of consumption and production were forever settled to your satisfaction, we should hold to the Order just as tenaciously as now. We know how to value the recognition given to women's influence and work in the world, we know how to value the education in business, in public affairs, for which there was need, and will be more and more as a true society is evolved out of a barbarous past. Yes, brothers, when you are ready to give up the Grange we will keep it alive, a living educator in practical life, in Christian equality, temperance, charity, into all the graces of neighborly living, until we have reached all we hope for. North and South are cemented by the fraternal spirit of the Order; in the home, the locality, the State and the nation it is a bond of union, and a guarantee that a true reciprocity of interests will make such union strong and perpetual."

The literary exercises were as described above. At their close an adjournment for lunch was announced, and a temporary disbanding ensued, when the crowd separated into parties of all sorts and sizes, to sit and feast under their favorite trees with none to molest or make them afraid. Though before retiring from the platform the ice had been broken in the matter of dancing; just enough to show that the instruments and other essentials to the dance were in accord, and also sufficient to add to the enjoyment of the pure and bountiful feast.

These feasts of the Patrons of Husbandry have been so often described and have been enjoyed by so many of our readers, that it is only necessary for us to simply declare that it was fully up to the standard Granger feast.

At about half past two o'clock the trumpet called to arms—no, not to arms, for it was a summons to the dance—and from this time until five o'clock the grove rang with the excellent music of the band and the merry voices of those who kept time to it. It was indeed a gay and happy scene, unmarred by intemperance, vulgarity or any perceptible unpleasantness even. No intoxicating drinks were allowed upon the grounds, but this restriction was manifestly superfluous, for we saw no indications of a desire for strong drinks. The entire freedom from restraint disarmed criticism; and if any had been critically inclined, we do not believe they could have discovered an instance of impropriety. On the whole it was an occasion which we should be willing to have taken as a representation of social farm life in California.

New Granges.

MANZANITA GRANGE, Portersville, Tulare county, was organized May 22d with the following list of charter members: B. T. Burr, W. Burr, J. K. Cramer, E. R. Ricker, Wm. Voorhees, W. G. Henderson, J. Suit, Thomas Osborne, A. Crooks, L. Duncan, Mrs. E. Lamoreau, Mrs. A. A. Voorhees, Mrs. M. Kincaid, Mrs. M. C. Becker, Mrs. L. Crooks, Miss F. Duncan. Mr. J. K. Cramer was chosen Master, and Mrs. M. C. Becker, Secretary.

LAKEVIEW GRANGE, Janesville, Lassen county, Cal., was organized May 25th, by Deputy A. J. Hatch, of Reno, Nevada, with the following list of members: J. D. Byers, W. S. Hamilton, L. Hicks, B. H. Leavitt, R. D. Bass, Geo. W. Fry, W. M. McLelland, S. Hoffman, Geo. Bangham, W. M. Cain, Wm. Leith, John Theodore, Chas. Barham, John Parks, E. C. Parks, John Thayer, J. P. Sharp, H. H. McMurphy, E. T. Shackelford, Mrs. Margaret Osin, Mrs. D. A. McMurphy, Mrs. S. A. McLelland, Mrs. Mary F. Bangham, Mrs. P. A. Hamilton. George A. Bangham was chosen Master, and John Theodore, Secretary.

LOMPOC GRANGE, Lompoc, Santa Barbara county, was organized April 28th by Deputy O. L. Abbott, with the following list of members: Wm. Jackson, J. B. Pierce, H. Summers, W. H. Broughton, Miss Annie E. Friel, A. Landsell, E. T. Hines, Jas. H. Webb, Kenson Poland, Mrs. Mary Leggett, Joseph Friedman, J. B. Henning, S. D. Cardell, Miss S. Barker, D. Archer, Frank Jenkins, E. H. Arne, Preston Hodges, Wm. H. Poland, Horace G. Heacock. Wm. Jackson was chosen Master and W. H. Broughton, Secretary.

By reference to a letter from Bro. Wright, and published in the present issue, it will be seen that the organization of two other Granges is also reported this week.

TOO LATE AGAIN.—Just as our last form was being locked up we received a very interesting letter from Brother Wright, on Southern California. It will appear in our next.

THE Granges in and around Jackson, Oregon, contemplate erecting a warehouse convenient to the river and railroad.

THE Rice county, Minnesota, Grange mill company has commenced operations, and proposes to do an exchange business.

THE Texas State Grange has appointed Bro. Jno. M. Crockett, of Dallas, purchasing agent for farm machinery and implements.

THERE are 1,041 Granges in Tennessee, and the membership is estimated at 30,000.

The Great Contest.

The great battle of the present day is most unmistakably between the producing and non-producing classes—the tribute payers and the tribute takers. This contest is new, however, only in the manner in which it is now conducted. Ever since the dawn of civilization there has been a disposition among mankind to "reap where they have not sown, and to gather where they have not sowed." But until recently the contest has been confined chiefly to a strife between nations, rather than individuals or classes. One nation has striven to make other nations tributary. England presents an illustrious example of success in this direction. But the benefits of this struggle, as between nations, has been confined to a very small portion of the people. The ruling classes and capitalists have derived all the glory, ease and profit; while, instead of advantage, an increased burden of toil and suffering has been imposed upon the masses.

So long as ignorance was the rule this condition of things was quietly endured. But so soon as education began to pervade the masses, and the public press had opened the eyes of the people to their true condition and relation to the State, this state of affairs began to be regarded by those most directly interested as not altogether in accordance with the golden rule. Hence the contest has now assumed a different shape, and begins to present a more complicated character. The strife has become internecine, rather than international. The contests and diplomacy of nationalities have been transferred to similar manoeuvres between individuals and classes; and now we see in every civilized nation a sharp contest going on between the producing and non-producing classes of each individual community. In the progress of this contest, particularly in Europe, we have often witnessed not only ordinary diplomacy and scheming, but also acts of most unblushing fraud on the one side, and equally unjustifiable deeds of violence on the other. We have often seen law and order overrun by the most wanton acts of agrarianism.

With such facts in mind it need not be considered a matter of special surprise that some of our trans-Atlantic contemporaries should at first sight regard the great anti-tribute paying movement which has recently sprung up on this continent, and which has already assumed such marvelous proportions, as fraught with dangerous possibilities. But anything like a close examination into the objects, method and personnel of the movement, must convince the most prejudiced that nothing like agrarianism can possibly find a foothold in the Order of the Patrons of Husbandry.

In the indignation awakened by an intelligent and earnest discussion of the questions at issue between that Order and the non-producing classes, it is not at all surprising that intemperance of language should sometimes be witnessed; but whatever the language may be, the measures and motives urged have never been socialistic, revolutionary or dangerous, in any way, to either the legal or moral rights of any class. The plan of action proposed, so far as individuals are concerned, is merely passive—a let alone policy. The farmers merely propose to do their own business in their own way. In regard to corporations, rings, etc., they are active only so far as may be necessary to keep such associations within due bounds, and prevent them, as tribute-takers, from forcing from industrious toilers more than a due return for the service rendered. They are opposed to any artificial commercial or monetary system which creates or maintains poverty in the midst of plenty. They simply propose to use the power which association gives to compel in a legal way other associations to deal justly. The contest when viewed in its true light is simply the old battle between tribute payers and tribute takers, transferred from an international arena to a politico-social contest between those opposing classes in individual nationalities.

KANSAS RELIEF RECEIVED.—W. H. Baxter, Secretary State Grange of Cal., has just received from M. E. Hudson, Master State Grange of Kansas, acknowledgment of the following donations to the relief fund contributed by California Granges: Draft for \$28.41, donated by Salida Grange No. 8, and draft for \$44.56, contributed by Cottonwood Grange No. 190, and Elk River Grange No. 104. The heartfelt thanks of the recipients of these favors are sent to their kind Brothers and Sisters in California.

Mr. Hudson reports that the young grasshoppers in a large portion of the State are doing an immense amount of damage to the spring crops; yet the season is very favorable and there is hope of a fair yield.

THE Executive Committee of the Missouri State Grange has contracted for 500 reapers and mowers, to be delivered in season for the next harvest. We should like to know how much is saved over the old way of buying.

EVERY Grange should have its own hall; until they do, the members will never feel at home. Have a good library and reading room in it, and have it as comfortable as your means and good taste can make it.

Grange Work in Fresno County.

EDITORS PRESS:—On my return home letters awaited me requesting a visit to the extreme southern portion of Fresno county, along King's river, to organize two Granges, which have been ready and waiting for some weeks. The enclosed lists will show the encouraging results, and the addition of two Granges with sixty-one members. We hope it will not be long before a

County Grange

Will be organized to look after the general business and educational interests of our members in Fresno county. The sooner it can be organized the better.

We now have eight Granges in the county. Two of them, Borden and Sycamore, may possibly soon consolidate, that they may form one strong Grange. I am delighted with the improved appearance and bright future prospects of this part of Fresno county. Its great advantage is the readiness with which the abundant water of King's river can be brought out upon the parched land to furnish that indispensable irrigation which is destined for the future to build up our agricultural and their dependent interests, on

A Sure Basis.

I have learned many things of interest in this fine farming region, of which I wish to give to your readers some account, but knowing your columns in this week's issue will be well filled, I send you at present only the very full and gratifying lists of charter members in our

Two New Granges.

It is a noticeable and lamentable fact that grain farmers in this region still suffer to some extent from the trespass of cattle owned by those who disregard the "No Fence Law." But measures are being rapidly matured for the strict enforcement of this just law.

List of charter members of Kingsburg Grange, organized by J. W. A. Wright, in Fresno county, May 22d, 1875. Post office, Wheatville. "W. A. Saunders, M.; "J. O. Berry, O.; "J. L. Gilbert, L.; Lemuel Harp, S.; J. W. Traber, A. S.; Henry Potter, O.; J. H. Say, T.; P. R. Fanning, Sec'y; W. J. Berry, G. K.; Mrs. Lucy Hodges, Ceres; Mrs. Annie Traber, Pomona; Mrs. L. M. Fanning, Flora; Mrs. L. J. Say, L. A. S.; Jas. B. Fowler, Jas. Hodges, Wm. E. Shimmings, Anthony Knight, "S. H. Loomis, C. P. Trasher, Jno. S. Wintemute, Chas. J. Cooper, Wilson Livermore, Willis Potter, G. F. Church, Mrs. L. A. Harp, Mrs. M. Berry, Mrs. W. P. Shimmings, "Mrs. M. L. Loomis, "Mrs. D. Gilbert, Mrs. W. O. Wintemute, Mrs. M. E. Traber, Miss Reta Traber, Mrs. H. Fowler, Mrs. H. Livermore.

List of charter members of Riverdale Grange, organized by J. W. A. Wright, in Fresno county, May 24th, 1875. Post office, Fresno City. Charles H. Welling, M.; Thomas Thompson, O.; John T. Moore, L.; J. H. Thomas, S.; D. S. Orr, A. S.; J. Chamberlain, C.; Lindsay Lewis, T.; "Harrison Price, Sec'y; William F. Sweet, G. K.; Mrs. E. Sweet, Ceres; Mrs. S. Thomas, Pomona; Miss V. L. Thompson, Flora; Mrs. Bessie Orr, L. A. S.; J. B. Sweet, John H. Sweet, D. M. Burgau, William M. Chamberlain, Jesse M. Swift, Charles E. Swift, Mrs. Mollie Price, Mrs. J. Thompson, Mrs. N. Sweet, Mrs. M. Burgau, Miss Ada Swift, Mrs. L. J. Lewis, Mrs. Martha Swift, Mrs. J. Chamberlain. Names marked with an asterisk (*) were already Patrons.

Nowhere have I seen the Grange work more cordially welcomed than here.

Yours fraternally,

J. W. A. WRIGHT.

Kingsburg, Fresno county, May 25, 1875.

[With the above interesting letter came the request that it should be published in the Press of the week in which it was written, but, unfortunately, it came one day too late, that number being at the time already printed and in the hands of the mailing department of the office. We don't wish to aggravate the annoyance to Brother Wright by perpetrating a pun at his expense, but we will take the liberty of saying that we believe that our readers will pronounce the matter "all right, anyway."—Eds. Press.]

In Memoriam.

WHEREAS, It having pleased our Heavenly Father to remove by death the adopted child of our esteemed brother and sister, Mr. and Mrs. JOSEPH SHEPARD,

Resolved, That we extend to the family our heartfelt sympathy.

Resolved, That a copy of these resolutions be placed on the minutes of the Grange, and also a copy be sent to the family and to the RURAL PRESS for publication.

C. B. PEASE, } Com.

D. F. CANE, } Com.

LEW. MORSE, } Com.

Manchester Grange, Point Arena, May 15th.

THE New York World promises when the

"fullness of time has come to indicate the

means whereby infallibly the members of the

Order can work out their salvation and bring

about the reforms that are desired and desirable

by peaceful methods." No member should

despair now.

THE Patrons of Goodhue county, Minnesota,

have organized a manufacturing association,

with a capital of \$100,000, in \$50 shares.

From the Granges.

Florin Grange.

EDITORS PRESS:—Since writing to you there is no apparent change in the crop prospects. So far as my observations extend, there are very few really good pieces of grain and many quite poor ones in this vicinity. From my own observations and from information from others, the bottom lands along the Cosumnes river are likely to be very poor this year, which in ordinary years produce splendid crops, but it is too dry for them this year.

About four weeks ago one of our neighbors was thrown from a horse, or rather the horse fell backward on him and injured him so that he died in two or three days. He was just going to town to get things to prepare for haying, intending to commence the next Monday morning; but the next Monday he was buried, leaving a family consisting of a wife and six children. Children all young.

The next week members from Florin and Enterprise Granges met at the farm of the deceased and cut, raked and nearly cocked, thirty-five acres of hay for the widow, which was all that was ready to cut at that time. And then about the 10th inst., we met there again with thirteen mowing machines and rakes enough to rake it, and cut and raked and nearly cocked about one hundred acres more. So you see that we do not intend to allow worthy neighbors to suffer for anything that we have got; and of labor we have all that we need and some to spare for the needy sick or unfortunate. But when it comes to money, I do not know of any one having more than they need. Three poor seasons in succession does not make money very plenty in a community depending on agriculture; but we stick to it, hoping that the next season will be better.

We had a harvest feast yesterday which was well attended by our Grange, and we had visitors from the three adjoining Granges. A class of ten—four brothers and six sisters—took the fourth degree; after which we repaired to a large barn which the ladies had prepared for our accommodation by cleaning, sweeping and sprinkling, and otherwise making it a splendid dining room for the occasion. And when we came to view the table, we all came to the conclusion that the sisters had been trying to see what they could do; for it was loaded with such a variety and so much of it, as would have astonished folks generally. Everybody ate and ate again, and there was enough left to load a wagon. We had invited a good many from the adjoining Granges to the feast, but some have commenced cutting grain, and many more will begin this week, and everybody being so busy made our attendance from our own and other Granges smaller than it would have been at almost any other time. Still we had all that our room would accommodate, but not half enough to eat up the provisions supplied. Some of our visitors said we had the best table and put on in better taste, that they had ever seen set in any Grange for a harvest feast; and I judge from the look of satisfaction on the countenances as they came out of the dining room, that everybody went away satisfied. As our dining room had a dirt floor, and was therefore not well adapted for terpsichorean performances, the younger portion of the Grange adjourned to the residence of our Worthy Master, L. H. Fassett, in the evening, and whether they encroached on the new week or not I am unable to say. But I presume not, for we intend to inculcate morality in the Grange as much as anything else. J. J. BATEA, Sec'y.

Florin, May 23d, 1875.

The Paso Robles and Summit Granges.

EDITORS PRESS:—There are two Granges located in this vicinity, the Paso Robles Grange and Summit. The former is situated about five miles east of the noted Paso Robles hot springs, too well known throughout the State to need any comment from my pen. Summit Grange is situated about twelve miles west of said springs. They are, as far as I am informed, in a flourishing condition; but some of the officers and members of Summit Grange are very dilatory about attending regularly at the stated meetings. I believe there is a clause in the State by-laws or a ruling that any member absenting themselves for three consecutive meetings shall be fined one dollar for said offence. But our Worthy Master has shown much leniency toward defaulting delinquents thus far, but perhaps like the old adage "Patience may cease to be a virtue." But I am in hopes they will do better after the busy season is past. Patrons, members of Summit Grange and Brothers and Sisters of other Granges living in this vicinity, I am requested to notify you that your presence is requested at the next regular meeting, on Saturday, June 6th, 1875, at one o'clock P. M., as business of the utmost importance will be brought before the Grange; and the preliminaries of a grand celebration and barbecue will be settled for the coming anniversary of our National Independence. A good time is in anticipation, so do not be dilatory on this occasion. Yours fraternally,

A. T. FOSTER, Sec'y Summit Grange.
San Marcos, May 21st, 1875.

REMARKS.—Our correspondent's supposition regarding the requirements of the State Grange is an error. The form of constitutions and by-laws provided for Subordinate Granges is simply recommended by the State Grange. Each sub-Grange can form its own constitution and by-laws, containing nothing in conflict

with the State or National constitution and rules. We should like to receive and publish some good suggestions for improving dilatory officers, but are confident that severe fines and penalties will not bring them up to perform what should always be a pleasant duty.

In Memoriam.

EDITORS PRESS:—Bro. Herman Warnerfield, Overseer of Bishop Creek Grange, died very suddenly on Sunday evening, of heart disease, falling in the road on his way home from a neighbor's house. He was not found until the next evening. His sudden death has cast a gloom over our Grange and community.

At a meeting of Bishop Creek Grange on May 25th, the following resolutions were unanimously adopted:

WHEREAS, It has pleased an all wise Providence to suddenly remove from our midst our beloved brother, HERMAN WARNERFIELD, therefore be it

Resolved, That in the death of Bro. H. WARNERFIELD, the community has lost one of its staunchest patriots, and our Grange one of its most faithful and efficient members.

Resolved, That we deeply sympathize with his bereaved relatives and many friends, and that a copy of these resolutions be sent to his brothers.

Resolved, That these resolutions be spread upon the minutes of this Grange, that a copy be sent to the PACIFIC RURAL PRESS, to the Sacramento Valley Agriculturalist and to the Inyo Independent.

Resolved, That the members of this Grange wear the usual badge of mourning for ten days.

J. ARRIEN,
W. T. WISWALL, } Com.
WM. McLAREN, }

AGRICULTURAL NOTES.

California.

ALAMEDA.

GREAT IMPROVEMENT.—Livermore Enterprise, May 29: The grain prospects in this vicinity are improving every day; both barley and wheat have improved immensely since the first of May. There will be an average half crop at least.

BUTTE.

PRE-EMPTION.—Oroville Mercury, May 29: We saw some barley that was raised across the river upon some of the land taken up by John Edwards. Although the ground was but poorly prepared, the season dry and almost everything unfavorable, yet the grains were as many on the stalk and as full and plump as on the more favored lands where the soil is dark and rich. If this kind of land should be well tilled, a crop could be raised every year, for it is a rare case that we have so little rain as has fallen the past winter, and especially during the months of March and April. We expect soon to see grain growing all over these plains, and a good crop harvested.

[The above, known as red land, is but a specimen. The land agent at Marysville writes us that there is plenty of such still vacant, subject to pre-emption and homestead filings.—EDS. PRESS.]

CONTRA COSTA.

PROMISING.—Gazette, May 29: Though the days have been pretty warm for a week past and have somewhat hastened the ripening of the grain, the heat has not been withering, as the wind has continued far enough west of north to come charged with some savor of the ocean's freshness, and the nights have been quite cool. Our crop prospects are still quite promising, and we are inclined to think that they will turn out for the central and western portion of the county an aggregate equal to that of our best seasons. Some of the latest sown wheat, though it still looks fresh and thrifty, has a thin stand, and unless the cool growing weather holds some weeks yet, it cannot make much grain. Of early sown and summer fallow there is much that now promises a yield of twenty cents or more per acre, and exceptional pieces that will give a much higher yield. The dry weather in April caught some of the summer fallow sown grain in a tender stage, and it bears yet slight signs of the scorching, sufficient to show that a few more hot days at that time would have damaged it badly, while the early winter sown shows no effects of that dry term, that threatened us such disaster. Next week our farmers will pretty generally be cutting their barley, and some of the wheat will be ready for reaping before the barley harvest is over.

HARVESTING.—Antioch Ledger, same date: The work of heading, threshing and sacking grain has fairly commenced; for several weeks farmers will be out early in the morning and the good housewife will not remain idle. In this portion of the county we hear similar reports from the western side, there has been a marked change for the better in the crop prospects during the past five weeks, many pieces of late grain that then gave no indications of maturing, will now afford a respectable yield. The early grain and all the summer fallow is looking fine, is free from weeds, a plumper kernel and is heavier than last season. There will be fully as much, and probably more grain shipped from Antioch.

FRESNO.

IRRIGATED CROPS.—The superintendent of the Canal company informs the Fresno Expositor that the company has about 5,000 acres of land under cultivation. Six hundred and forty acres

of it was planted in alfalfa last year, and the balance was cultivated this season—1,250 acres was sown jointly in alfalfa and grain, and the balance, 3,010 acres, in wheat. The grain is doing splendidly—standing very thick and nearly as high as a man's head. The farm is irrigated by water from the canal, innumerable cross ditches being cut for the purpose. It is estimated that 2,500 tons of hay will be cut on the farm this year. The canal works excellently and the result of this year's experience on this farm shows in a practical manner the necessities and benefits of a thorough system of irrigation.

KERN.

FORTY BUSHELS TO THE ACRE.—Courier, May 29: On the ranch of Dr. Thornton may be seen a field of barley comprising 500 acres. It is now ready for cutting, and it will make an average of forty bushels to the acre.

LOS ANGELES.

WHAT THE COUNTY EXPECTS.—Herald, May 29: We shall do very well in Los Angeles this year. Our crop will be a full three-quarter one, both in the cereals and fruits, and our producing class as a whole always make as much money in a scanty as in a full year. The Southern end of the State, so far as Los Angeles county is concerned, fairly balances the Northern.

MERCED.

A REASONABLE HARVEST.—Express, May 29: During the week we have traveled over much of the eastern portion of the county, and without prevaricating in the least can say that the prospect for a fair yield of grain is good. Much of the grain which three weeks ago hid fair to be a total failure, now looks green and well, and will without doubt make an average crop. For some time past the weather has been unusually favorable, only tolerably warm days and very cool nights. With this kind of weather for another ten days, the farmers may expect a reasonable harvest.

A GOOD SAMPLE.—From same: We were shown on last Friday a sample of wheat from N. B. Stonerod's ranch, on Mariposa creek, which is the best we have seen this season. The stalks are perfectly green and will average from four to five feet in height. The heads are well formed and large. Mr. S. has about one hundred acres of this kind of wheat.

MONTEREY.

SATISFACTORY APPEARANCE OF CROPS.—Democrat, May 29: During the week, we looked over the portions of the Alisal rancho owned by Messrs. Pomeroy and Montrie, respectively. The grain—wheat—now standing upon them, considering the season, makes a very satisfactory appearance. It is not quite so thick as it was last year, but the heads are as large and are, seemingly, filling as well as then. Unless there be very extraordinary weather, such as caused by hot winds, which are not to be looked for in a year like the present, the yield will be such as to fully sustain the reputation of this rancho as a wheat producer.

WHEAT GROWN WITHOUT RAIN.—From same: It seems incredible that a crop of grain should be raised on our upland without a drop of rain. But such is the advantage of being within the fog belt. M. A. Clark, for example, broke up a considerable piece of ground on the Alisal (Zavala) rancho, after the rains, putting it in wheat. There was moisture enough in the soil to cause the seed to sprout, and the leaves once out of the ground the fogs and dews have supplied the necessary humidity. The yield will be above the average.

NAPA.

CROPS IN BERRYESSA.—Register, May 29: From Mr. Jesse Grigsby, who is in town this morning, we are glad to learn that crops in Berryessa are looking well—much better than was expected earlier in the season. Arrangements for the new road are about completed.

NEVADA.

FOOTHILL WHEAT.—Tidings, May 29: John Timbey, on the old Alexander place, about six miles below Grassa Valley, on the McCourtney road, has sixty acres of wheat which it would do a grumbler at our beautiful highland farming region good to look at. It is from three to four feet high at this time, and still growing, and stands thick on the ground. It was sowed early on summer fallowed land, and would produce a splendid crop of grain were it not that it is worth much more for hay, to be cut when green.

SAN BENTO.

PROSPECTS IN SANTA ANNA VALLEY.—Hollister Enterprise, May 29: We paid the Santa Anna valley a visit last Sunday, and were agreeably surprised to see the broad fields of waving grain and its fair promise of a good harvest. Five miles from town you come to the fine ranches of Messrs. Cook, Johnson and Wm. Reed, in the west end of the valley. The grain and flax on these places look well, and on Mr. Cook's farm in many places the crops are even better than last year. These ranches are a fair index of the entire valley. We visited the ranch of John A. Reed, in the upper end of the valley, and had the pleasure of investigating closely his broad acres of flax, barley and wheat; besides these, he has one of the finest babies and smallest horses we have ever seen. That Santa Anna is a more than average district there is no question. The fields between town and this section, with the exception of those nearest town, look very well. Mr. Pease, particularly, has an excellent stand of wheat. On the whole, the harvest prospects in that direction are far from discouraging.

SAN DIEGO.

IMPROVED PROSPECTS.—Union, May 27: Crop prospects continue to improve under the cloudy weather. Accounts from all quarters are of the most cheering character.

GRASSHOPPERS.—From same: We are informed that grasshoppers have made their appearance in the San Luis Rey region, and are eating up the grass very fast. They have not, however, touched the crops in the valley, which are looking exceedingly well. The barley fields promise a very large harvest.

SAN JOAQUIN.

SAMPLE GRAIN.—Stockton Leader, May 29: Mr. Dial, of Lockeford, has shown us sample barley and late sown wheat and barley raised on his ranch, and when we consider that the ranch is located upon the "plains," the yield is nearly astonishing. One bunch is taken from a field of 140 acres of summer fallow, and the heads are large and perfectly filled, and range from three to five grains to the mssh, and will average ninety grains to the head. Another bunch of wheat is from a seventy acre field sown in February, and notwithstanding the slight rainfall since, the heads are four to five inches in length and filled as perfectly as any grain we ever saw. The barley comprises samples of grain sown in December and January, one month apart, and we venture to say that it cannot be excelled in San Joaquin county on land not irrigated, and by but little that has been. The heads average sixty grains each and are perfectly filled, and as green and thrifty as though no scarcity of rain had been experienced. Mr. Dial says that the average yield of grain on the "plains" this season will be larger than the farmers have ever had before.

SONOMA.

CROPS IN GREEN VALLEY.—Petaluma Argus, May 29: James Gregson, who has a farm of 160 acres in Green valley, informs us that the crops are looking well in his section, the wheat crop being very promising. The fruit, owing to the frost, in many places will be a failure. However, there will be some peaches, a few plums, and the crop of apples will be fair. There will be no quinces and very few pears.

SUTTER.

HOW THE GRAIN LOOKED TO EDITORIAL EYES.—Banner, May 29: During the past week we have taken a drive into the country, to notice for ourselves the prospect for a coming grain crop the present season. In a drive of twenty miles we passed farm after farm, and the crops of each will compare with any former year in the last decade very favorably. There is a much larger acreage than last year, and the prospect is certainly anything but discouraging. In many instances we noticed crops of barley and wheat that will average at least forty bushels to the acre, and none that we saw, in our opinion, will fall below ten or twelve bushels to the acre.

TULARE.

CHOICE WHEAT.—Visalia Times, May 29: We just received a sample of fine wheat grown on the farm of F. Bacon, Esq. It is well headed out and is ready to harvest. He has seven hundred acres, and it is the finest we have yet seen. We understand that this is raised without any irrigation. May Mr. Bacon live to see many such crops as this one. Although the season has been unfavorable we have all to be thankful that it is no worse. Thousands of bushels will be harvested in Tulare county this season. And yet some are not happy.

TUOLUMNE.

FAILURE OF FRUIT.—Columbia correspondence of the Independent, May 29: The peach crop in and about Columbia was totally destroyed by the frost. Pears are few and scattering. The yield of the winter apple orchards will not exceed one-fourth the average product of past years. The plum tree is minus of fruit, with but one exception which has come to our notice. In speaking of this locality, Mr. Francois, of Gold Springs, whose ranch adjoins that of the Jarvis Brothers on the west, has an orchard containing 200 plum trees, principally green gages, which, for some unaccountable reason, escaped the frost; while Messrs. Jarvis Brothers have a great many trees, but will not realize from their entire orchard 100 pounds of dried plums. We were informed by Mr. Francois, who showed us through his plum orchard a few days ago, that he is certain that the average yield from his orchard will reach 100 pounds of dried plums per tree.

HAY.—From same: The hay crop is above the average yield, and there being a great increase in the number of acres put in this year over any preceeding one, it is expected that the supply will be equal to the demand in this county, and not as heretofore necessitating shipments from other counties to supply deficiencies.

YOLO.

LARGER SURPLUS THAN USUAL.—Democrat, May 28: The cool weather of the past fortnight has been all that could be desired for the filling of cereals. If no north winds occur to abate the grain there will be at least an average yield of wheat, and with the increased acreage of barley sown there will be a larger surplus than usual, although it is said that the barley kernel is more or less shrunken. The same might be said of the late wheat; but the early sown, especially the Sonora wheat, is as round and plump as we have ever raised in the best of seasons. Harvesting has commenced, and by the first of next week the whole valley will be one vast field of labor. Already \$1.55 per cental has been offered for the coming crop of wheat—a fair price—but it seems that but few are willing to engage at that figure.



The Voice of the Grass.

Here I come creeping, creeping everywhere;
You cannot see me coming,
Nor hear my low, sweet humming;
For in the starry night,
And the glad morning light,
I come quietly, creeping everywhere.

Here I come creeping, creeping everywhere;
More welcome than the dowers,
In summer's pleasant hours;
The gentle cow is glad,
And the merry bird not sad,
To see me creeping everywhere.

Here I come creeping, creeping everywhere;
When you're unheeded with the dead
In your still and narrow bed,
In the happy spring I'll come
And deck your silent home—
Creeping silently, creeping everywhere.

Here I come creeping, creeping everywhere;
Most joyfully I raise
To Him at whose command
I beautify the land,
Creeping, silently creeping everywhere.

Pen Droppings.

[By ELISA E. ANTHONY.]

EDITORS PRESS:—From among the redwoods we send you a wsf, giving a slight description of the beauties of the country, and an account of a short trip we made not many days ago.

About 11 A. M. the rattling of the stage was heard, and in less than five minutes your correspondent was seated therein, the driver shouted "All aboard," cracked his whip, and rattled along for about a mile, when we reached Tibbetts' mill, where our driver, who seemed to be a public benefactor, delivered letters and packages; then on again, up an easy grade until we reached McGowan's mill, where an ugly car created confusion for a short time; then we start, the road is good, the view lovely, as we gaze afar off and see the mountains bathed in a dim, hazy vapor, which at times lifts, and discloses Monterey bay in all its beauty; and then as the stage is within a few inches of the edge of the road, and we can look down five or six hundred feet, we involuntarily shudder and close our eyes, until the danger, fancied or real, is passed.

The urbane driver gives us some items; points out a giant redwood tree which is fully three hundred feet high; then in the distance is the umbrella tree; and as we dash around a curve in the road, noticing our horror, he coolly informs us that it is named the Devil's elbow—more suggestive than beautiful, we think. Up, up, higher and higher, and soon we reach the summit; there a lovely scene bursts upon our view, and we alight and feast our eyes upon Santa Clara valley which is, as it were, spread out at our feet, dotted with houses and villages and encircled with hills; and it looked so beautiful that we wished we could sketch it there and then; but our time was up, and we reluctantly entered the stage again. "Hold on," says the driver, and before we have gone a mile we think his advice is worth taking, for the horses are sometimes on a run, and the stage rocks from side to side as we dash around short curves, meeting teams now and then.

Nutmeg canon is a mile and a half from the summit. The nutmegs are somewhat similar to our spices, and ripen in the fall; the leaves are needle-pointed, long, very narrow and are quite a curiosity.

We soon reach a curve in the road which bears the euphonious appellation of the Grecian Bend, wherefore deponent knoweth not; then comes Tin Can gulch; in a moment we have passed it, and soon change horses. Congress Springs is the next stopping place, and with its snowy porticoed buildings looks cool and pleasant, and many health and pleasure seekers visit it during the summer season.

Saratoga is seven miles from Santa Clara and is a quiet little village; along there the road is rather dusty but we make good time, and reach Santa Clara between three and four in the afternoon.

Mr. Charles Sykes is the proprietor of the stage line, is a careful driver, very pleasant and accommodating, and willing to do all in his power to further the comfort of his passengers. He carries the United States mail three times a week, and anything else from a box of initial paper to a cart wheel, and travels the forty miles between Santa Clara and Santa Cruz in about eight hours, changing horses three times. Leaves the Cameron House, Santa Clara, on the arrival of the first car from San Jose in the morning, stopping at noon for dinner at a hotel on the mountain, and reaching Santa Cruz at three in the afternoon. Fare, \$2.50; and to one who is a lover of fine scenery a trip over this road is a pleas-

ure. The next evening at 7 P. M. we started by stage for Alviso; along the road the crops looked very bad, haying was progressing and strawberries blushed rosy red beneath their green leaves. It is a straight, level road and we reached Alviso in one hour, stepped on board the steamer Relief and watched the crowd on shore.

Chest upon chest of strawberries was slid down into the hold of the vessel, wagon upon wagon drove up to be unloaded, men were shouting, horses rearing, young people flirting, dogs barking, steam escaping, and every thing was confusion. The last chest of berries was on board, farewells spoken, and at eight o'clock the Relief swung off, and we had started. For an hour or two the deck was crowded, then one by one dropped off, until it was deserted. It was a lovely moonlight night, and as the shore could be plainly seen, we concluded to remain on deck, and we did so until we reached San Francisco, at 1 A. M. D. O. Mills' residence could be faintly seen, shining in the moonlight like a pile of silver, and the lights of three vessels at a distance gleamed over the water.

The gentlemanly clerk, Mr. Leale, invited us into the pilot-room, and we cautiously climbed the stairs, reached the upper deck, and drew a sigh of relief when safe in the pilot-room. Captain Benson entertained us with some of his adventures, for he has led a roving life; he went to sea when he was nine years of age, has been around the world four times, and been shipwrecked seven times. We hereby return thanks to the Captain and Mr. John Leale for their courtesy and kindness toward us.

We are a poor sailor, and were soon compelled to return below, where muffled up in robes, we watched the lights of the city grow brighter and clearer. We sailed now around a large vessel, now among small ones, and soon reached the wharf, where we watched the unloading until 2 P. M., when we retired, and at 5 A. M., were roused by such a rushing of water that we sprang up in dismay only to find that the sailors were washing the deck with the hose. The Relief carries between three and four hundred chests of strawberries daily, flour, bran, vegetables, etc., and as the berries are fresh when they reach San Francisco, and ready for the morning market, it is a great convenience to the farmers, and as it is a pleasant trip, many people prefer it to the cars.

We will pass over our visit in the city, where we went and what we saw; and a few days later we reached our mountain home, fatigued it is true, but bringing with us the memory of a very enjoyable time.

Flume Mill, May 20th, 1875.

TRIFLES.—Our lives—or rather their happiness or misery—are in a great measure made up of trifles, just as time is made up of moments. The discomfort of having to wait for a meal beyond its regular hour, or of finding things ill-prepared or carelessly done, or of meeting slovenliness or discomfort when a little thought and pains might have introduced ease and even elegance, or of being brought up sharp at every turn by want of punctuality and of method—these are ills more difficult to bear than the uninitiated imagine. Most houses might be comfortable and elegant. Yes, elegant! For comfort consists in finding everything where and as it should be, elegance, in adding to what should be there, that which need not be there, but whose presence surprises, attracts and gratifies.

There is often neither comfort nor elegance in the richer mansions, while both are found in the laborer's cottage. A jug filled with flowers, a neat white curtain, a couple of flower pots, may effect what the expenditure of as many dollars has not achieved. Let it not be said that these are mere trifles, unworthy of attention. Distrust the pretence of that spirituality whose eyes are too lofty for the common things of life. In the long catalogue of things to "think on," they rank at any rate among the "whatsoever things are lovely." You say these are trifles? Then all the more they ought not to be neglected. But trifles though they be, to neglect them is not a trifle; it is a breach of plain duty.

LIFE'S LESSONS.—For me nothing is more interesting than to see a man in the first intense strain of a new enterprise. It may be a new cider mill; it may be a new newspaper. It is a great crisis in that man's life. He lives thirty days in one. Old, trite proverbs take on new and startling meanings. He looks upon all men and all things in a strange new light. He judges all men and all things with regard to the accomplishment of his one, supreme design. During a certain time the stars in their courses fight for him; then the very universe changes its direction, and pushes with all its weight against his tottering wall; another change, and a thousand accidents are in his favor. He does not know until years afterward with what concentration he labored in those days of beginning. He smiles at himself, and tells pleasant stories of his make-shifts and ab-ortions; and now when he sees another and younger person starting his cider mill with the old, outworn enthusiasm, he looks on with the same half-sympathetic, half-cynical interest with which an old married couple contemplate two young people who have just fallen in love.—Scribner's Monthly.

"HUMAN felicity," said Benjamin Franklin, "is produced not so much by great pieces of good fortune that seldom happen, as by little advantages that occur every day."

HOME AFTER BUSINESS HOURS.—The road along which the man travels in pursuit of competence or wealth is not a macadamized one, nor does it ordinarily lead through pleasant scenes and by well-springs of delight. On the contrary, it is a rough and rugged path, beset with "wait-a-bit" thorns, and full of pitfalls, which can only be avoided by the watchful care of circumspection. After every day's journey over this worse than rough turnpike road, the wayfarer needs something more than rest; he requires solace, and he deserves it. He is weary of the dull prose of life, and thirsts for the poetry. Happy is the business man who can find that solace and that poetry at home! Warm greetings from loving hearts, fond glances from bright eyes, the welcome shouts of children, the many thousand little arrangements for our comfort and enjoyment that silently tell of thoughtful and expectant love, the gentle ministrations that disencumber us into an old and easy seat before we are aware of it—these and like tokens of affections and sympathy constitute the poetry which reconciles us to the prose of life. Think of this, ye wives and daughters of business men! Think of the toils, the anxieties, the mortification and wear that fathers undergo to secure for you comfortable homes, and compensate them for their trials by making them happy by their own firesides.

THE SLANDEROUS TONGUE.—The tongue of slander is never tired. In one way or another, it manages to keep itself in constant employment. Sometimes it drips honey, and sometimes gall. It is bitter now, and then sweet. It insinuates, or assails directly, according to the circumstances. It will hide a curse under a smooth word, and administer poison in the phase of love. Like death, it "loves a shining mark." And it is never so available and eloquent as when it can blight the hopes of the noble-minded, soil the reputation of the pure, break down or destroy the character of the brave and strong. What pleasure men or women can find in such work we have never been able to see. And yet there is pleasure of some sort in it to multitudes, or they would not betake themselves to it. Some passion of soul in high estate can take delight in it. It indicates lapse, tendency toward chaos, utter depravity. It proves that somewhere in the soul there is a weakness, waste, evil nature. Education and refinement are no proof against it. They often serve only to polish the slanderous tongue, increase its force and give it suppleness and strategy.—Arthur's Magazine.

LAUGHTER.—Laughter very often shows the bright side of man. It brings out his happier nature, and shows of what sort of stuff he is really made. Somehow we feel as if we never thoroughly knew a man until we hear him laugh. We do not feel "at home" with him till then. We do not mean a mere snigger, but a good, hearty, round laugh. The solemn, sober visage, like a Sunday's dress, tells nothing of the real man. He may be very silly, or very profound, very cross, or very jolly. Let us hear him laugh, and we can decipher him at once, and tell how his heart beats.

SOME one has well said that "parents who spend money judiciously to improve the house and grounds about it, are paying their children a premium to stay at home and enjoy it; but when they spend their money unnecessarily on fine clothing and jewelry for their children, they are paying them a premium to spend their time away from home—that is, in places where they can display such ornaments." In other words, parents of sense set a sensible example to their children, in dress, as in everything else.

THE Woman's Journal asks these questions: "Is it not as much a crime and sin to trample on the rights of 15,000,000 of women now, as it was to do the same thing to a much smaller number of men a century ago? Was it worse to tax men without their consent then, than it is to tax women now? Was it worse to govern men without their consent then, than it is to do the same to women now?"

EVEN THE HAIRS NUMBERED.—Somebody has discovered that when the hair is light or blonde, the number of hairs on a person's head averages 140,000. When the hair is brown, the usual number is much less, being only 110,000, while black hairs reach only the average of 103,000. Blonde hair is the finest.

SENSIBLE.—Says a clear-headed woman:—"I see no reason why a girl should not be taught the use of a jack-knife, the hammer and saw, to drive a nail, tighten a screw, or put up a shelf in her room. She should if possible have a garden, and be taught to take pride in her acquaintance with Nature."

If you desire to enjoy life, avoid unpunctual persons. They impede business and poison pleasure. Make it your own rule not only to be punctual to a little beforehand. Such a habit secures a composure which is essential to happiness.

THERE is a pleasure in contemplating good; there is a greater pleasure in receiving good; but the greatest pleasure of all is in doing good, which comprehends the rest.

AS STORM follows storm, and wave succeeds wave gives additional hardness to the shell that encloses the pearl, so do the storms and waves of life add force to the character of man.

A Spelling Puzzle.

The Chicago Tribune furnishes the following ingenious paragraph, as furnishing words some of which are pretty sure to spell down the brightest spelling class which can be brought together. It is much handier to carry around than a Webster's Unabridged:

A vigilant gazetteer, with the sobriquet of "Colonel," who has combated the railery of the plebeians and the euphuisms and soisms of the vacillating, idiosyncratic, erudite patriots, received, with unparalleled eschination, a challenge to an orthographical competition. To his transcendent surprise, the proffered prize was, daguerreotypes of Mendelssohn, Kosciuszko, and Besselaer, or, if the conqueror preferred, copies of the Septuagint, Apocrypha, and the Westminster catechism. He thought, with debatably admissible egotism, of the gratuitous applause of the populace, and the appearance of his name in bourgeois the next day, and his choice was discernible in his hilarity and the hieroglyphic acknowledgment which he transmitted to the embarrassed and stupefied gypsy, who left with a rough courtesy. He changed his apparel, donned his Nassau, Ulster, and his worsted gauntlets, and traveled toward the trying place. He stopped at the druggist's to obtain a dose of chloral and a dozen troches. Here he found a physician who was purchasing a dram phial of ipecacuanha and an ounce of licorice for a colicky patient, who not only had the colic, but rheumatism, neuralgia, bilious erysipelas, and was threatened with hemorrhage, cerebro-spinal meningitis, pneumonia, and hemiplegia. He met a surveyor and an architect who were gauging the width of Eighth street for a criss-cross trestlework bridge. A ferocious derrick almost mauled his cranium, and he bawled aloud. His clamor brought an ally from a neighboring alley, who administered a draught of rectified whisky, and a teaspoonful of paregoric mixed with chloroform. At the same time this thief, with consummate villainy, purloined his chronometer and the balance of specie in his pockets. He committed this piece of rascality with impunity, and it went unpunished, for our punctilious friend was harassed and perplexed at the lateness of the hour. He next met a sibyl, who wore a de bege polonaise with a cuirass basque, and a shirred tablier, all elaborately trimmed with bliss pleatings and passementerie—and carried a schel, portemonnaie, and reticule. She smilingly offered him a tempting bouquet of fuchsias, lilies, mignonette, and phlox in a coach-like basin. But he saw a caterpillar cosily ensconced among the posies, and refused the nosegay. A groceryman tried to inveigle him into buying a supply of peas, potatoes, celery, cauliflower, or kerosene, but he thought of his embezzled funds, and passed on. A Teutonic tenant of a tenement house, forgetting the tenet of the law, was bastinadoing the soles of an incorrigible stripling with a surcingle. The murmur of parental harangue, preceded by a volley of virulent imprecations, filled the auditory meatus of our friend, and he proceeded toward the goal. A flaming advertisement of recent discoveries of auriferous and argentiferous deposits in the argillaceous country of the Black Hills now caught his eye. He did not stop to criticize the italicized statements, but he saw several salable specimens of cinnabar, more precious than bdellium, onyx, or beryl. When he reached his destination he was exceedingly roiled to find that the gnomon of the dial indicated that he was delinquent. An ostentatious pedagogue, with a ferule or gavel in his hand, was endeavoring to mystify his audience with the appellatives that emanated from his larynx. "Refutable," "gossamer," "medieval," "kaleidoscope," and "mnemonics," dismayed some, and "hymn" was a plenary word to the Colonel, for he spelled it with an "i." Feeling symptoms of a phthisicky catarrh, he left, amid the ridiculing clapping of hands of his competitor.

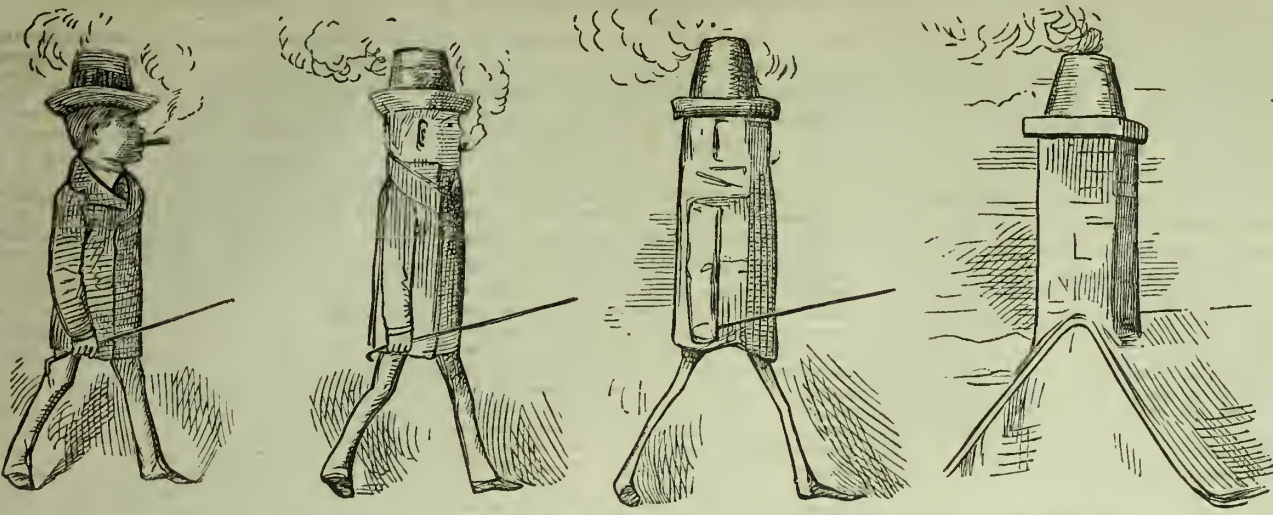
Hired Men.—Get the best hands and keep them. When a man has become used to his work and his employer, he is worth more than a stranger. There is a way of making men interested in their work, of satisfying their self-respect, treating them courteously and reasonably, giving them credit for success, while holding them strictly responsible for failures, and above all by paying them promptly and liberally, that will make their work worth double what it otherwise would be. As land advances in price, more labor must be expended on it to make it pay a profit, and by and by we must have a settled laboring class.

SERMONS WITH BLADES.—Passing along the road the other day, we thought we had found a very beautiful knife. On picking it up, we found it to be a bundle with a blade. So do we bear very beautiful sermons—well written and well read; but they are without a blade—they cut out no cankers of sin and carve out no models of piety. Sermons must have blades.

THE TIME FOR STUDY.—Rev. Dr. Bellows, who may be considered good authority, says: "All the studying of children should be done in school. Six hours hard work a day is all that should be put upon a child, and time out of school hours should be devoted to innocent recreations of mind and body."

A BILL has been introduced in the Maine Legislature to sell eggs by weight. Its effect will be to encourage the laying of larger eggs.

VERY often men out their love-teeth, as they do their wisdom teeth, very late in life.



RETROGRESSIVE EVOLUTION—HOW A BOY WAS CHANGED INTO A CHIMNEY.

Peace at Home.

It is just as possible to keep a calm house as a clean house, a cheerful house, an orderly house, as a furnished house, if the heads set themselves to do so. Where is the difficulty of consulting each other's weaknesses as well as each other's wants; each other's tempers, as well as each other's characters? Oh! it is by leaving the peace at home to chance, instead of pursuing it by system, that so many houses are unhappy. It deserves notice, also, that almost any one can be courteous and patient in a neighbor's house. If anything goes wrong, or is out of time, or disagreeable there, it is made the best of, not the worst; even efforts are made to exonerate it, and to show it is not felt; or, if felt, it is attributed to accident, not to design; and this is not only easy, but natural, in the house of a friend. I will not, therefore, believe that what is so natural in the house of another, is impossible at home, but maintain, without fear, that all the courtesies of social life may be upheld in domestic societies. A husband as willing to be pleased at home, and as anxious to please as in his neighbor's house, and a wife as intent on things comfortable every day to her family, as on set days to her guests, could not fail to make home happy. Let us not evade the point of these remarks by recurring to the maximum allowances for temper. It is worst than folly to refer to our temper unless we could prove that we ever gained anything good by giving away to it. Fits of ill humor punish us quite as much, if not more, than those they are vented upon; and it actually requires more effort, and inflicts more pain, to keep them up, than would be requisite to avoid them.—*Ex.*

Our Worship of Skeletons.

The irrational reverence for things that are old is standing all the time in the path of progress. Old forms that are outlived, old habits that new circumstances have outlawed, old creeds which cannot possibly contain the present life and thought and opinion, old ideas whose vitality has long been expended—these are stumbling-blocks in the way of the world, yet they are cherished and adhered to with a reverential tenderness that is due only to God. A worn-out creed is good for nothing but historical purposes, and when they are answered, it ought to go into the rag-bag. Forgetting those things which are behind, the wise man will constantly reach forward to those that are before. The past is small, the future is large. We travel toward the dawn, and every man who reverences the past, simply because it is the past, worships toward the setting sun, and will find himself in darkness before he is aware. Of all the bondage that this world knows, there is none so chilling or so killing as that which ties us to the past and the old. We wear out our coats and drop them; we wear out our creeds and hold them, glorying in our tatters.—*Dr. Holland, in Scribner.*

DO THE RIGHT THING.—Whenever you are in doubt which of two things to do, let your decision be for that which is right. Do not waver, do not parley; but square up to the mark and do the right thing. Boy! when you divide that apple with your little sister, be careful not to keep the largest half yourself. Young man! don't sneak out of the basement door because you wish to escape your father's eye. Madame! let not the most trifling deceit pass current in those little acts which make the sum of your life. No matter who you are, what your lot, or where you live, you cannot afford to do that which is wrong. The only way to obtain happiness and pleasure yourself is to do the right thing. You may not always hit the mark; but you should, nevertheless, always aim at it, and with every trial your skill will increase. Whether you are to be praised or blamed for it by others; whether it will make you richer or poorer, or whether no other person than yours-elf knows of your action, still, always, and in all cases, do the right thing. Your first lesson in this will grow easier, until finally doing the right thing will become a habit, and to do a wrong will seem an absolute impossibility.

Young Folks' Column.

Grammar in Rhyme.

The following is a complete grammar of the English language in a small space. Old, as well as young, should commit these lines to memory, for by their aid it will be difficult, if not impossible, for them to fall into errors concerning parts of speech:

I.
Three little words you often see
Are articles, a, an, and the.

II.
A noun's the name of anything,
As school or garden, hoop or swing.

III.
Adjectives show the kind of noun,
As great, small, pretty, white, or brown.

IV.
Instead of nouns the pronouns stand,
Her head, his face, your arms, my hand.

V.
Verbs tell us something to be done,
To read, count, laugh, sing, jump, or run.

VI.
How things are done, the adverbs tell,
As slowly, quickly, ill, or well.

VII.
Conjunctions join the words together,
As men and women, wind or weather.

VIII.
The preposition stands before
A noun, as in, or through the door.

IX.
The interjection shows surprise,
As oh! how pretty—oh! how wise.

The whole are called nine parts of speech,
Which reading, writing, speaking teach.

Keep Your Promises.

A boy borrowed a tool from a carpenter, promising to return it at night. Before evening he was sent away on an errand, and did not return till late. Before he went, he was told that his brother should see the article returned.

After he had come home and gone to bed he inquired, and found that the tool had not been sent to its owner. He was much distressed to think that his promise had not been kept, but was persuaded to go to sleep, and rise early and carry it home the next morning.

By daylight he was up, and nowhere was the tool to be found. After a long search, he set off for his neighbor's in great distress, to acknowledge his fault. But how great was his surprise to find the tool on his neighbor's doorstep! And then it appeared from the print of his little bare feet in the mud, that the lad had got up in his sleep and carried the tool home, and gone to bed again, without knowing it.

Of course a boy who was prompt in his sleep was prompt when awake. He lived respected, had the confidence of his neighbors, and was placed in many offices of trust and profit.

If all the grown folks felt as this boy did, there would be a good many tracks of bare feet found some of these bright mornings; and what piles of tools and books would be found lying at their owners' doors!

SHE REMEMBERED.—A Sunday-school teacher of this city, having taken much trouble to explain to her class the parable of the wise and foolish virgins, thought on the following Sabbath she would see if they remembered her instruction. Telling them to stand up (they were all under ten years of age) she said: "Now, girls, what did I tell you about last Sunday?" A perfectly blank look on the faces of all—no one remembered—till a pair of black eyes sparkling with delight and a little hand raised to call attention, caused the teacher to ask, "Well, Louisa, what was it about?" The answer was, "Why, about them women that forgot their kerosene!"

Good Health.

Fetid Feet.

Some persons can be "smelled" a mile off, more or less; it is a misfortune, and a source of very great mortification to the refined and sensitive. It may be "born" with some; with others, if not all, it is the result of a diseased condition of the system, or of a neglect of personal cleanliness. There is a peculiar odor emanating from the feet, which is, perhaps, always the result of uncleanness. If daily washings do not remove these odors, a very efficient wash is found in red oxide of lead, one part to twenty-nine parts of the liquor of the sub-acetate of lead; the first to be bruised in a porcelain mortar, gradually adding the latter; apply a few drops once a week, oftener in summer.

A specific odor escapes every one, and is peculiar to the individual; the dog knows it, and by it follows his master through any crowd of human beings, and never makes a mistake. A man's organ of smell is not thus acutely developed; still there are persons whose peculiar penetrating odor is readily recognized. This does not come from the "sweat" of the person, as no such odor issues from the hands, but from the arm-pits and other parts kept covered by the clothing, so that the air cannot penetrate; nor is the application of soap and water too frequently allowed. When the "sweat" remains in contact with the skin, it undergoes a chemical change, and it is this which disengages the peculiarly disagreeable odor, as to the feet particularly; thus this chemical formation is a kind of fetid fat, which is absorbed into the pores of the leather, and there it is detained with fresh additions daily, for weeks and months, with increasing rancidity, as the smell of any old boot or shoe will demonstrate. Some persons wear stockings without change from the time they are first put on until they are worn full of holes. Very many do not wash their feet oftener than once a month; only a few as often as once a week. To be scrupulously clean, the feet should be washed every night before going to bed, and no stocking, boot, or shoe should be put on a second time, until it has had a whole day's sunning, at least by those who have an ambition to be and feel as sweet and clean as a dew drop on the rose of summer; or put two tablespoons of the compound spirits of ammonia (hartshorn) in a basin of water, and wash the face, hands, arms, arm-pits and feet with it. The skins left fresh, clean, and sweet; it is perfectly harmless, and costs but little.—*Hall's Journal.*

SALICYLIC ACID—THE NEW DISINFECTANT.—The powers of carbolic acid to arrest fermentation and putrefaction are well known. But its odor is to most persons decidedly offensive, and if taken internally, even in minute doses, it is apt to produce very serious results. According to the recent investigations of Professors Kolbe, Knap and others, salicylic acid possesses the same antiseptic power without the accompanying disadvantages. It is inodorous, of a faintly sweet taste, and can be taken internally, even in relatively large doses, without injurious effects. It will, therefore, prove of great value in preserving meats, eggs, fruit, preserves, beverages, medicinal preparations, inks and a great variety of organic matters from mouldiness or putrefaction. One part of the acid is capable of preserving 26,000 parts of water from becoming tainted. Small traces of it prevent wines, malt liquors, etc., from turning sour in cask or bottle.

SUNFLOWERS FOR FEVERS.—Favorable mention continues to be made of the virtues of sunflowers as preventives of bilious fever, chills, fever, etc. A correspondent writing from a place in Alabama, which he says was peculiarly subject to fevers, gives the results of his experience on the premises, and in not a single instance where he planted sunflowers around his negro cabins did their inmates suffer from fevers, while his wife, two children and two house servants all had fevers, he not having planted any of the sunflowers around his dwelling, which, in his opinion, accounted for the difference in the results.

DOMESTIC ECONOMY.

Hints for the Household.

A correspondent of the Germantown Telegraph furnishes the following "trifles" under the head of "Hints for the Household:"

TRIFLES.—There are many little things in the household, attention to which is indispensable to health and happiness. The kind of air which circulates in a house may seem a small matter, for we cannot see the air, and not many people know anything about it; yet if we do not provide a regular supply of pure air within our houses, we shall inevitably suffer for our neglect. A few specks of dirt may seem neither here nor there, and a closed door or window appears to make little difference; but the little dirt and the little bad air are apt to sow the seeds of ill-health, and therefore ought to be removed. The whole of the household regulations are, taken by themselves, trifles—but trifles tending to an important result.

PREVENTIVE AGAINST MOTHS.—A very pleasant perfume, and also preventive against moths, may be made of the following ingredients. Take of cloves, caraway seed, nutmeg, mace, cinnamon and Tonquin beans, of each one ounce, then add as much Florentine orris root as will equal the other ingredients put together. Grind the whole well to powder, and put it in little bags among your clothes, etc. This will answer for furs also; but I never tried anything more certain as a protection against moths in furs than to first shake out or beat out every foreign substance before putting away for the season. Then wrap them up in a perfectly sound newspaper. What I mean by sound is that there shall be no holes or breaks in the paper. Make a bag of the paper by pasting; pack it and paste up the month of the bag. Put it in a drawer where it will not be disturbed. If well done not a moth will ever be found inside. Try it.

WASHING WOOLENS.—Professor Arins, who has devoted himself to the discovery of the reason why woolen clothing, when washed with soap and water, will insist upon shrinking and becoming thick, and acquiring that peculiar odor and feeling which so annoys housekeepers, says these evil effects are due to the decomposition of soap by the acids present in perspiration and other waste of the skin which the clothing absorbs. The fat of the soap is then precipitated upon the wool. These effects may be prevented by steeping the articles in a warm solution of washing soda for several hours, then adding some warm water and a few drops of ammonia. The woollens are then to be washed out, and rinsed in lukewarm water.

LEMON-DROPS FOR CHILDREN.—Squeeze the juice of six lemons into a basin; pound some lump sugar and sift it through a fine sieve; mix it with the lemon-juice and make it so thick that you can hardly stir it; put it into a stew-pan, and stir it over the fire for five minutes; then drop out of a teaspoon on writing paper and let it stand until cold.

TREACLE PIE.—Line a dish with thin paste, cover with treacle as for roly-polly pudding, and continue alternate layers of paste and treacle till the dish is full, finishing with paste; bake in a moderate oven.

VIOLET POWDER.—Violet powder is made by scenting finely-sifted arrow root with a little orris root.

THE MOSAIC DIETARY LAWS.—It is strange that the Mosaic prescriptions for man's diet, chiefly taken from the tabernacle rites, have become, by common consent, the bill of fare of modern society, with variations, of course. In the cities, especially, the main articles of food are those which the laws of Moses recommend. When in former days people dined largely on pork, many became hogs themselves, and many diseases, still raging among men, have been conveyed into the human system by the consumption of pork, rabbits, hares and other animal food which the law forbids.

Physiologists understand well enough the importance of diet, and yet none have gone to the trouble of giving the Mosaic dietary laws a thorough scientific examination. Here are the Jews, after 3,000 years, a healthy, intelligent, energetic and fertile race. Much is said about their longevity, temperance, charitable disposition, etc.; still no scientist has taken the trouble to examine the food on which this race lived and thrived. The point is certainly, scientifically, very important.

NEW METHOD OF CLEANING WOOLEN GOODS.—It is well known that wool when first taken from the sheep contains an unctuous secretion from the skin of the sheep called "yolk." This soapy substance contains potash, and can be washed out with water, with which it forms a sort of lather. In Elbeuf this yolk is employed with advantage as a substitute for fuller's earth in cleaning woollens. The raw wool is put in a large vat, and covered with water. Here it is left for three hours; then the water is let out into a second vat, and afterwards pumped back into the first vat for two hours longer. This operation is repeated two or three times, and then the wool is taken out of the vat freed of water. New wool is now put in the vat and manipulated as above, until the water is sufficiently soapy. The cloth is put in the fulling machine with a sufficient quantity of this liquor, and fulted for two or three hours. After washing it is found to be perfectly clean.



PUBLISHED BY
DEWEY & CO.
A. T. DEWEY. W. B. EWER. G. H. STROGO. J. L. BOONE
PRINCIPAL EDITOR.....W. B. EWER, A. M.

OFFICE, No. 224 Sansome street, Southeast corner of California street, where friends and patrons are invited to our SCIENTIFIC PRESS, Patent Agency, Engraving and Printing establishment.

SUBSCRIPTIONS payable in advance—For one year, \$4; six months, \$2.25; three months, \$1.25. Remittances by registered letters or P. O. orders at our risk.
ADVERTISING RATES.—1 week. 1 month. 3 months. 1 year
Per line.....25 .50 \$2.00 \$5.00
One-half inch.....\$1.00 \$3.00 \$7.50 24.00
One inch.....2.00 5.00 14.00 40.00

Large advertisements at favorable rates. Special or reading notices, legal advertisements, notices appearing in extraordinary type or in particular parts of the paper, inserted at special rates.

No Quack Advertisements inserted in these columns.

GET UP CLUBS FOR THE RURAL PRESS.

OLD SUBSCRIBERS and other reliable persons are authorized to get up clubs of five or more subscribers for this paper at \$2 per annum for each name. Our terms for all subscribers are cash in advance. Postage will be prepaid by us after January 1st, 1874. The papers will be addressed singly to each individual. Regular subscription price \$4. Sample copies free. Let those who will work for the Rural Press bear in mind that they will confer a lasting benefit on new subscribers, besides improving their own talents by business practice. Try your hand and report at once. We offer all a chance. You do not know what can be done till you try!

SAMPLE COPIES.—Occasionally we send copies of this paper to persons who we believe would be benefited by subscribing for it, or willing to assist us in extending its circulation. We call the attention of such to our prospectus and terms of subscription.

SAN FRANCISCO:

Saturday, June 5, 1875.

TABLE OF CONTENTS.

GENERAL EDITORIALS.—The Sweepstake Thresher; Blind Stagers and Sheep; City Water; That Wager, 369. Salvation by Irrigation; Book Notices; More Foothill Strawberries; Silk Worms; Memorial Day, 376. Points for Immigrants; The Paper Tree, 377. Patents and Inventions, 380.
ILLUSTRATIONS.—The Sweepstake Thresher, 369. Retrogressive Evolution—How a Boy was Changed into a Chimney, 375. The Paper Tree; Utilizing Old Bottles, 377.
CORRESPONDENCE.—Cherry Vale; Live Fences Wanted; Prospects in Southern Ohio; The Farmer of the Yosemite Valley; San Marcos; The Reclamation of Our Salt Marshes; Grain About Denver, 370. Rice's Straw-Burning Engines, 380.
SHEEP AND WOOL.—Sheep Raising; Eastern Wool Markets, 371.
THE HORSE.—Rheumatism in Horses; What is a Blooded Horse? 371.
USEFUL INFORMATION.—To Form Perfect Squares; Ballooning; Waterproof Paper; Detection of Beef Fat or Lard in Butter; To Preserve Posts; Alcohol—Curious Change of Meaning; Prairie Chickens and Grasshoppers, 371.
PATRONS OF HUSBANDRY.—Progress of the Patrons in California; New Grauges; Meetings; Etc., 372-3.
AGRICULTURAL NOTES from various counties in California, 373.
HOME CIRCLE.—The Voice of the Grass (Poetry); Pen Droppings; Trifles; Life's Lessons; Home after Business Hours; The Slanderous Tongue; Laughter; Even the Hair Numbered; Sensible; A Spelling Puzzle; Hired Men; Sermons with Blades; The Time for Study, 374. Peace at Home; Our Worship of Skeletons; Do the Right Thing, 375.
YOUNG FOLKS' COLUMN.—Grammar in Rhyme (Poetry); Keep Your Promises; Sho Remembers, 375.
GOOD HEALTH.—Fetid Feet; Salicylic Acid—The New Disinfectant; Sunflowers for Fevers, 375.
DOMESTIC ECONOMY.—Hints for the Household; The Mosaic Dietary Laws; New Method of Cleaning Woolen Goods, 375.
HORTICULTURE.—Yuccas and Echeverias; Utilizing Old Bottles, 377.
MISCELLANEOUS.—Diamonds from Sugar; A Boiling Lake, 371. Irrigation Meeting; General News Items; Agricultural Items, 380.

THE STATISTICIAN.—The May number of this excellent hand book contains one noticeable feature. We refer to the complete, accurate and admirably arranged list of postoffices in California, Oregon, the Pacific Coast Territories and British Columbia. By consulting this list the inquirer can ascertain at a glance the time of the arrival and closing of mails for any desired point. The other tables and the general fund of useful information it contains make the *Statistician* indispensable to the business man.

NEVADA STATE FAIR.—In our list of coming fairs and exhibitions this week will be found a notice of the second annual fair of the Nevada State Agricultural, Mining and Mechanical Society, which occurs the first week in October. The society has our best wishes in this as in all other efforts to advance the industrial interests of their State.

ON FILE.—"From Yosemite," W. H. B. "Sonoma Grange," J. T.; "About Yellow Jackets, etc.," S. W.; "Will Alfalfa Pay?" I. S. W.; "Deep Plowing and Irrigation," W. R. O.; "Notes on Southern California," J. W. A. W.

Salvation by Irrigation.

Even the casual observer is enabled to realize that the agricultural salvation of California is only to be brought about by irrigation. But those who take only a casual look at the matter—like those whose attention is suddenly engrossed by any other important matter—are too apt to think that this idea is just dawning upon the farmers of this State. The necessity for irrigation was made apparent in the early stages of California farming. The conviction was soon forced upon the minds of farmers, gardeners and fruit growers, that something must be done in this direction, and with the conviction efforts were at once made to supply this urgent need; and if those who are now—very properly—pointing out what should be done in the way of irrigation, would pay a little more attention to what has been done in this difficult matter, and give due credit for the same, it would do much toward conveying to the world at large a just impression of the merits of California agriculture.

It is quite a common fault with the press generally, to aim too high in matters like this of irrigation; giving too little consideration to the day of small things. The attention is so engrossed by grand schemes of irrigation that people fail to realize that the marked success of these great enterprises, and the almost total absence of failure in connection with them, is owing, in a great degree, to the practical teachings of the humble pioneer of irrigation. The State has cause to congratulate itself in the fact that our system of irrigation is founded on this practical basis. A person passing over the country at the present time, even going through the mining districts, will be surprised at the extent to which the available local water supplies have been pressed into the service of agriculture. The time has now come when the waters of the lakes and large rivers of the State are to be brought into requisition; and we may reasonably hope that before ten years more have passed, we shall have a system of irrigation unexcelled in its economy and usefulness. When that epoch in the history of our agriculture arrives, we may well thank providence for the supposed unfortuitous state of things that compelled farmers to resort to irrigation; for we shall be in a position that may well excite the envy of those who have hitherto bestowed their pity upon us for our lack of summer rains; and we shall really expect to see the California system of irrigation adopted by the agriculturists of the Atlantic States. These important steps in progressive farming are not mere matters of agricultural ambition; a change of circumstances renders them imperative; and Eastern farmers will soon find themselves in a condition where they can no longer afford to be at the mercy of the weather. And it is proper to state here, that the standard contrast between the need of summer rains on our part and their abundance at the East, is not justified by the circumstances of the case. So much has been said by Eastern people about our want of rain, that they apparently forget the consequences that a brief summer drouth brings to the farmers there. In the matter of summer drouth, the capacity for endurance is greatly in our favor. We are acquainted with districts there where a three weeks' drouth is as disastrous to growing crops as one of four months' continuance in California.

In connection with this great question it is a satisfaction to know that the people at large, as well as the farming community, realize its importance to the country. The result of this popular discussion will be a general understanding of the matter, which will very naturally secure adequate legislative consideration and judicious enactments.

Book Notices.

"MANUAL OF JURISPRUDENCE AND CO-OPERATION OF THE P. O. H." This is a valuable acquisition to the literature of the Order. On questions of form and jurisprudence it is reliable authority, and every live Patron should become acquainted with its contents. A. B. Smedley, Master of Iowa State Grange, is the author, and the book bears evidence in every part of thorough work. Instruction, rather than entertainment, is evidently the object of the work, but we can assure the reader that its perusal will be anything but a task. Its price, \$1.25, places it within the reach of all, and for this a hasty perusal will afford ample compensation; after which it will continue to be equally valuable as a manual for reference. This book is fresh from the press, and is fully up to the advanced condition of the Order, is practical in all respects, and evidently supplies an existing want.

An invoice will be received in a few days, when copies may be had from Dewey & Co., 224 Sansome street.

"DISEASES OF THE HORSE," by Robert Chawver. This is a manual of special pathology, for the use of those having charge of horses, and for the instruction of students. It is concise and brief in its treatment of the various subjects taken in hand, and is apparently up to the requirements of the time; forming a cheap, ready and complete reference in veterinary matters. For sale by A. L. Bancroft & Co.

PEACHES are in the market.

More Foothill Strawberries.

Of course they came from our friend Felix Gillet, of Nevada City, and of course they are superb. On this, as on many similar occasions, the RURAL PRESS office has ample cause to thank its considerate friend; but in this case especially we feel as though the community at large is under obligations to Mr. Gillet for these additions to the pomology of the country. The following note which accompanied the present describes the contents of the box:

EDITORS PRESS:—I have the pleasure of sending you to-day another sample of our foothill productions—that is a box of strawberries of the following varieties—General Grant, light orange red; The Lady, pale-colored; Granger, entirely new; Baron Lyman de Ly-nich, red. You will find them in the box packed in strawberry leaves, with a little hay at the bottom, the Lady on the top of General Grant, and the Granger with Baron side by side with the Lady. I could not get but very few of those two varieties ripe enough to be picked. I keep a large number of varieties of strawberries—twelve being English, ten from the East, including Col. Cheney, Jocunda, etc., and four of my own, viz: General Grant, Governor Booth, Nevada and Granger; all obtained from the seed and so named by myself.

General Grant is a magnificent variety, always large, triangular shaped, of a bright orange red, fruit stem short, and standing up among the leaves, very productive and half late. I regard it as one of the most desirable varieties to raise for market, the slip being hard enough as to not get so easily bruised, as is the case with Col. Cheney, Lady, Jocunda, etc. Governor Booth is a very late variety. The berry is very large and round and of a pale red color. It is a stout grower. Nevada is also very late, about two inches long and one inch in circumference, quite red. As to the Granger, it is my last berry, and all I will say is "hurrah for the Granger!" I should not be surprised if Granger would beat all other varieties. I obtained it from Princess Dagmar, a pale colored strawberry; but it does not look at all like the Princess, though like it, it is very sweet and well flavored. Would you believe that the six large berries of that Granger variety which I send you are only one-third of the crop of a single vine one year old, having sowed the seed last spring and set the plants early in the fall? Such is the fact.

As I intend to cut and introduce those magnificent varieties in this State and the East, I wish that you would just take note of the sample I send you; and I would wish that strawberry growers of Santa Clara county could take a look at them, so as to compare them with the wretched berries they shipped all over the State in the spring. It is as easy and cheap to raise large berries as small ones; and it is better to keep all sorts of varieties—early, half late and late. I wish you would let me know whether the way I packed them works well. The Lady and Granger are not very ripe, but General Grant is.

I am sorry to add that I will not have the pleasure of sending you any more samples of fruit this year, the frost having entirely destroyed our peaches, plums, almonds and pears up here, and badly injured our apples, of which we shall have but a small crop. On the other hand, the grapevines look splendid. I have succeeded very well with my chestnut grafting, and hope that those among your readers who got chestnut, pear and cherry scions from me will succeed as well.

I am now raising 50,000 silkworms. The weather is most favorable, and the food excellent, but I detected already the presence of pebrine. I expect, however, to meet with rather good success. FELIX GILLET.
Nevada City, May 30th, 1875.

We have the satisfaction of assuring Mr. Gillet that his present arrived in excellent order. The Grangers and the General Grants would have endured still further transportation. The latter would perhaps have passed creditably through a brief third term. The Lady and the Baron are also attractive varieties, but we agree with Mr. G. in the opinion that the Granger will probably prove the most popular berry.

We do not hesitate to recommend the above varieties to our fruit growers, who will appreciate the advantage of having stock that partakes of the foothill healthiness.

The RURAL PRESS sends its regrets to Mr. Gillet at the loss of his choice fruit by frost. We most heartily wish that we could keep this invoice of fruit to exhibit to those who desire ocular proof of what the foothills of California can produce.

DEMAND FOR CALIFORNIA STOCK.—Jesse D. Carr has recently sold several head of his thoroughbred Short-horn stock to go to the Atlantic States. Both Mr. Carr and Mr. Ashburner are regular advertisers in the RURAL PRESS, and the RURAL PRESS is rapidly gaining in influence at the East. Do our stock breeders see the point?

REPORTS from Hueneme state that the crops are as good as in any year, and the yield of corn, barley and wool will be large.

Silk Worms.

Mr. Joseph Neuman, the indefatigable laborer for the silk interests of California, is now feeding a very large stock of worms, with a view to produce something that will represent at the approaching Centennial Exhibition proofs of California's capacity for producing this material. By invitation we visited Mr. Neuman's place at 1142 Folsom street, and inspected some millions of silk worms now in course of feeding. He is fitting up racks for holding about 300 feeding frames, about half of which are already in their places and occupied by thriving colonies of worms, embracing various stages of growth, from the minute objects just emerged from the eggs, to those an inch in length. The frames are made of laths and are 2x4 ft in size. These frames are covered with paper and on this the worms are placed, having been onticed on to the mulberry leaves soon after leaving their eggs, when the leaves with the clinging worms are placed upon the feeding frame; and as their advanced growth or other circumstances require shifting, large fresh leaves are placed on the frame, and the worms taking to these are transferred in this condition. Mr. N. and his family are attentive and judicious keepers to their interesting stock. He expects to produce about 1,000 lbs. of cocoons the present season.

Memorial Day.

Memorial day was generally observed throughout the country—not a city or a hamlet but its flags were lowered and its people did homage to the memory of those brave souls whose bodies were offered a sacrifice to maintain the nation's honor.

There is something sadly beautiful in the idea of a nation dressing the graves of her dead heroes with mournful emblems of respect and love. The memories this day awakens are not all sorrowful. The knowledge that those we loved and lost fell in defence of a great and pure principle will heal the hearts that would bleed afresh, check the sorrows that would otherwise be inconsolable. One of the most cheering evidences of the true unity of our country is found in the reports that come to us of the mingling and interchange of courtesies among those who not more than a decade since stood opposed in mortal combat. Over the grave of their dead brothers, the Union and Confederate clasp hands and swear allegiance to a common cause, for

"Under the sod and the dew,
Waiting the judgment day,
Love and tears for the brave,
Tears and love for the gray."

In San Francisco the ceremony of decorating the graves at the cemetery was attended to during Saturday, under the auspices of the Grand Army of the Republic, and in the evening Pacific Hall was crowded to repletion with ladies and gentlemen who listened to an appropriate memorial address delivered by Governor Pacheco.

EARLY PEACHES AND BLACKBERRIES.—Mr. H. E. Stewart, of Knight's Ferry, who has remembered us before in the way of fruit, sends us a sample box of ripe Beatrice peaches. These are only a neck behind the "May peaches," which were received in this city the last day of May; these coming on June 3d, and were sent on May 31st. Mr. Stewart will please accept our thanks for his complimentary present.

The "May peaches" alluded to above were grown by Mr. Briggs, of Marysville, who has succeeded in producing this variety from a seedling which he noted as ripening its fruit unusually early, and by budding from this he has now a large number of trees in bearing with this desirable variety.

For the early blackberries we are indebted to our friend Mr. G. Aughinbaugh, the originator of the berry of that name. He informs us that the frost rather got the better of him in the speed contest this season, for at the time of its occurrence his berries were far enough advanced to be injured by it, while other varieties were not; consequently the set back which his bushes received gave the later varieties a chance to lessen the gap between them and the Aughinbaugh berries. Mr. A. will also please accept our thanks.

REMOVAL.—Crossett & Co.'s employment agency, one of the most reliable in the city, have removed from their late place of business to the building known as Gray's Mensio Store, No. 623 and 625 Clay street, nearly opposite the old stand of Crossett & Co.

"SEMI-TROPICAL FARMER."—This is the title of a new agricultural and Grange paper published weekly at Los Angeles, T. Glancey, editor and proprietor. The make up of our new contemporary, both mechanical and editorial, is highly commendable.

DOUBLE SHEET POSTPONED.—The issuing of the RURAL PRESS double sheet for June has been postponed until the last of the month, when the revised Grange Directory, with other extra matter, will be published.

AWINDSOR correspondent of the Sonoma Democrat writes that the corn looks well in that section, some standing ten and twelve inches high. There is a good acreage.

Points for Immigrants.

Every issue of the *RURAL PRESS* contains in its correspondence department much that will be of interest to those who desire information from different parts of the State. It is not necessary that we should say much in favor of our correspondence; the good sense and candor pervading these letters will at once secure the respect and confidence of the reader. We have the satisfaction of knowing that by the aid of these contributions to its columns the *Press* has been the means of disseminating facts and suggestions of much service to new comers and prospective immigrants, and has also served the permanent interests of the localities to which they relate. In addition to this we have endeavored to obtain from our contemporaries in different parts of the country such points as may possibly be available to the immigrant.

We find in the *Petaluma Argus* the following, which may be of interest to those interested in wool growing:

"The production of wool has become one of the most important industries of Sonoma county. Not only has the number of sheep largely increased in the last few years, but their quality has greatly improved, and it may safely be said that Sonoma contains a larger number of flocks of fine sheep than any other county in the State. Sheep are not owned and herded here in such large numbers as in some other counties, but great pains have been taken to improve the breeds and take care of the flocks, and the consequence is the superiority of our sheep and wool as compared with those of other sections. The spring clip this year will be the largest and best ever shorn in this county. The good feed and absence of long, cold storms during the winter have prevented any cessation of the steady growth of the fiber, and it is consequently longer and stronger than usual. Several of our sheep raisers estimate that their spring clip will average five pounds per head. This is, of course, much above the general average for the county. Ewes are now lambing, and the increase promises to be unusually large. The shearing season this spring will commence about the first of May. Estimating that there are 100,000 sheep in the county, and that the average yield of wool for the year will be five pounds per head, the wool product for the county for the year 1875, will be 500,000 pounds—enough to keep two or three good sized woolen mills in constant operation."

Parties wishing to embark in mining will perhaps be interested in the following item from the *Yreka* (Siskiyou county), *Union*, of April 22d:

"As there are a number of more claims than heretofore being opened this season on the Klamath river, and they all work more or less hands, some of the working immigrants that are coming into this State would be sure to find employment on the river in about a month from now."

In answer to enquiries concerning the climate, soil and resources of Humboldt county, the *West Coast Signal* of March 17th has the following: We give as nearly as possible correct replies to the twenty-five queries propounded by Mr. Meyer:

Really we have but two seasons—the wet and dry—the rainy season commencing about the first of November and ending about the first of April. The wet season must not be understood as bringing continual rain. Often during the winter we have days and even weeks of warm, sunny weather. And the dry season is not so entirely so as to parch the earth or impede the growth of vegetation. During the summer months, the atmosphere is tempered by sea breezes and light fogs, which are very beneficial to crops of all kinds. No such thing as failure of crops from drouth has ever occurred in Humboldt county.

The climate is mild and very rarely cold enough in winter to make ice. Although changeable, the changes are more sudden than severe. Always cool at night, both summer and winter, whether in the neighborhood of the sea coast, or beyond the redwood timber belt, or coast ranges of hills. In the latter region, the weather is generally warmer and more tropical in summer than in the neighborhood of the coast.

The winters are mild. Freezing weather seldom occurs in the coast region; snow seldom falls, and then not in sufficient quantity to more than cover the ground, or to remain longer than a few hours. In the mountain regions snow often falls to the depth of one or two feet, but never causes serious disaster to flocks of cattle and sheep, if provided with sufficient food. During what is specified as the wet season, the average fall of rain is from twenty to thirty inches. Considerable fog at some seasons, but in this respect the climate improves (less fog) every year.

Frosts are unrequent, and a drouth or failure of crops from that cause has never been known since the settlement of the county by white people. The naturally moist atmosphere, particularly in the region of the coast, prevents such a result. As for cold weather, many flowering plants bloom throughout the winter months.

The county territory is, in the main, hilly though frequently traversed by streams which have rich bottom lands on their borders. In

the vicinity of Humboldt Bay the lands are low and level.

Much of the country, especially in the interior, is unusually agreeable and attractive—in short romantic and grand to those who can appreciate grand diversified scenery. From some of the higher mountain points the scenery is described by foreign visitors to be as truly grand and romantic as that in the mountains of Switzerland.

The bottom lands along the streams and about the bay are always moist, the hill or grazing land less so, especially in summer and autumn. No great extent of swamp and overflowed lands, except in the vicinity of Humboldt bay, all of which are yet unreclaimed.

The country is timbered to such an extent that it would astonish the most ardent representative of the land of Tell or any other. A heavy belt of redwood timber, from five to thirty miles in width between the coast and the "Hills" country, as it is termed. The hills are ordinarily bald, with occasional patches of timber. The statement may be safely made that there is no more finely timbered region than Humboldt county under the sun.

The bottom and much of the hill lands are as rich for agricultural purposes as found in any country. There are instances in the Eel river valley where the black loam deposit is fifteen to twenty feet in depth. In the vicinity of the coast, apples, pears and plums flourish and produce well. The Hills country offers a fine opportunity for grape growing, although the

at tolerable advances over first cost. Most of the hill lands in private hands have cattle and sheep on them.

Government lands can be had by pre-emption and homestead entry, which requires settlement, at \$1.25 per acre. Hill lands in private hands can be had at from \$3.50 to \$10 per acre, and bottom lands at from \$15 to \$40 for unimproved, and \$25 to \$125 for improved.

There are excellent public schools, and the strictest attention is given to the education of the young. There are also first-class seminaries and private schools."

The Paper Tree.

The paper tree, *Tung tsan*, grows wild in the forests of Formosa, a beautiful island situated about eighty miles from the Chinese coast. It grows much like the palm, with a slender trunk and corrugated bark, and often attains the height of thirty feet. Its top is crowned with a profusion of small, but delicate yellow flowers, in clusters, below which are a number of large leaves. It is a very pretty tree in the flowering season, but its value does not consist in its ornamental qualities. Like the elder, it has a pith, which in the full grown tree is not less than two inches in diameter. This is driven out by a punch after the tree has been cut into sections, and then put into hollow bamboos, when it dries straight. After it dries, it is cut



THE PAPER TREE.

unsettled condition of that portion of the county has thus far prevented the taking advantage of that fact. The more delicate fruits, as peaches, apricots and nectarines flourish well in the same region. As a stock-raising section, Humboldt county is not surpassed by any on the Pacific coast.

Besides the home market (the demand of 15,000 people) San Francisco affords a market for everything the county can produce. Carrying facilities are on the increase, both by land and sea, and all products are easily and profitably disposed of.

With all the facilities afforded, and the demand which prevails, outside of the manufacture of lumber, there are no important enterprises. For the manufacture of woolen goods, leather and beet sugar, no portion of the State offers better facilities, but thus far they have not been taken advantage of. A splendid field is open for capital and enterprise.

All produce is shipped by sea, on steam or sailing vessel. By steam the transit to San Francisco occupies twenty-four to thirty hours; by sail, two to six days.

Population increasing rapidly; principally of American descent, but includes the representatives of nearly all nations.

There is not a choice of eligibly located lands except by purchase from present owners. The only government lands free to homestead and pre-emption location are hill lands, suitable for grazing, fruit or vines. And it may be well enough to add that the choicest of hill lands have been located.

The greater portion of the lands are in private hands, and of the agricultural, a very considerable portion is under cultivation. Still there are thousands of acres of good farming lands as yet untitled, which can be purchased

into sheets about four feet long, by a machine something like that by which leather is split. These are pressed until they become firm and smooth, after which they are cut into sheets, the desired size.

This makes a very good paper, and is extensively used in Eastern countries. It has the peculiar quality of swelling when it is wetted, and then of retaining its enlarged size. This makes it very desirable for fancy work, such as taking the impression of leaves and flowers; also for drawings, as the moistened surface rises and gives the effect of relief.

This paper has been in use a long time by the Chinese, though they make other kinds of different material.

Paper of some kind has long been in use, but probably at first the skins of animals were used. We are told that the early Arabs made their inscriptions on the shoulder blades of their sheep. The papyrus was early used in Egypt, and continued in use long after the Christian era. This was prepared by separating the different layers of the bark of the papyrus, a reed-like plant, and then pressing them together, with each alternate one laid crosswise. This is said to have made a very strong and durable paper.

The Buddhist priests still write their sacred literature on the leaves of the sacred palm. I have often seen them reading from these books, and I have a part of one in my possession now. They are neat in appearance, and not inconvenient.

Modern invention has done much for the world, but not as much as one would naturally suppose. Most of us would be astonished to see how well the world got along, and how neatly paper was made before the days of paper mills.

HORTICULTURE.

Yuccas and Echeverias.

Two years ago, in studying the newer plants adapted to our rainless summers, I obtained through the kindness of Prof. Grey, very fine additions to our stock of fleshy leaved house-leeks and sedums.

Every one is familiar with the humble sedum acre, so much used for our borders, and which bears neglect and drouth admirably; but few are aware that there are some forty other species, some larger and some finer foliaged, well adapted for the dry rockery. Upon the rocks at Humboldt bay a fine silvery echeveria abounds. We have another gorgeous flowering species to the southward; both are eminently deserving a place in our gardens. A corner can be given to this family of plants which would prove an interesting variation to the standard, set styles now in vogue. Pretty high up, I would put a plant of variegated agave, leaving room for it to spread on all sides, then a semi-circle of yuccas, so selected that they would be likely to bloom together. Then a row of echeveria metallica with any other echeverias, and just on the edge, sedums and sempervivums. A good name would be the "live for ever garden," as two or three waterings in a season would carry it through, if the bed or mound was made of good rich soil in the first place. The little sedums would creep in and out and carpet every inch of surface between the larger plants.

Yuccas are among the finest architectural plants, especially *Y. pendula* or *recurva*, which made such a splendid show in the grounds of the military academy last year. When the bloom shafts are dried, the plant appears to be dead, but it should not be moved for three or four months, when if lifted carefully a large number of fleshy buds will have protruded, and will already have strong roots. These may be separated and planted, or potted at once. One should always have a supply in the reserve garden. The houseleeks may be divided at any time.

JEANNE C. CARR.

Utilizing Old Bottles.

Scarebirds for Cherry Trees.

EDITORS *PRESS*:—I remember reading a simple device for keeping birds away from the peas and fruit, which has afforded me no little amusement in practice.



Scare-bird.

Get three or four bottles of different sizes, and cut off the bottoms, which may be done by tying a string around them wetted in spirits of turpentine or kerosene, and after letting it burn off, immersing the bottle in cold water. If it does not come off itself, a slight blow with a stick will separate it. Make a hole in the cork and suspend by a string or fine wire coiled two or three times to give it a little spring. A good sized nail, a stone or anything will make a clapper for your glass bell. Then drive in the cork securely or wire it down, and leave wire enough to hang the bottle to some delicate bending twig. The bell will be rung by the wind. Larger and smaller bottles and different kinds of tongues will give out different tones. Sometimes when there is no wind, the birds will set the bells ringing, when they instantly fly away without attempting any further familiarity. J. C. C.

[A string can also be attached for ringing the bells by hand from a distance.]

Inexpensive Jelly Jars, Etc.

By cutting off the tops of glass bottles in the manner above described, a very cheap device is obtained for holding jellies and preserves. It will also be found convenient for other household purposes.—*Eds. Press.*

WINE CELLARAGE.—One of our subscribers from St. Helena, Napa county, informs us that in the district embracing St. Helena, Rutherford, Slater and Oakville there is a want of cellarage for the wine produced there. It is expected that the wine product of this district will reach 200,000 gallons this season, while the cellar capacity will scarcely reach half this amount. The gentleman alluded to expresses a belief that an addition to the wine cellarage of this district would prove a good investment; and that the grape growers in all the places named above would take stock in the same. This want should be supplied. The wine product of California is assuming more importance each year, and its commercial value, as well as its real merits, will depend largely upon the capacity for storing which the wine districts themselves afford.

Three hundred and fifty tons of grain were shipped from Dixon last week.

DEWEY & CO., American and Foreign Patent Agents, No. 224 Sansome St. SAN FRANCISCO.

Patents Obtained Promptly.
Caveats Filed Expeditiously.
Patent Reissues Taken Out.
Patents Secured in Foreign Lands.
Assignments Made and Recorded in Legal Form.
Copies of Patents and Assignments Procured.
Examinations of Patents made here and a Washington.
Examinations made of Assignments Recorded in Washington.
Examinations Ordered and Reported by TELEGRAPH.
Interferences Prosecuted.
Opinions Rendered regarding the Validity of Patents and Assignments.
Rejected Cases taken up and Patents Obtained Every Legitimate Branch of Patent Agency Business promptly and thoroughly conducted.
SEND FOR CIRCULAR.

A NEW DISCOVERY To Save Time and Labor.

The Magical Effect of

ENGWER'S PURE BORAX SOAP

Is wonderful. Washes without much rubbing. Every one knows the value of

AMMONIA and BORAX
For Washing Purposes;

This Borax Soap is principally composed of the combination of the two ingredients, so that it entirely does away with hard labor. A trial will convince any one of its superior qualities. Warranted to give satisfaction and not to injure the finest fabric. Ask your Grocer for

Engwer's Pure Borax Soap.

IF HE DOES NOT HAVE IT, ASK HIM TO GET IT.

GRANGER SOAP.

Once Used, Always Used.

Manufactured by
FALKINBURGH & CO.,
Oregon Street, near Front, San Francisco, Cal

SEEDS. PLANTS. OF EVERY VARIETY.

Fresh and reliable, such as experience and care only can select.

GRASS AND CLOVER SEEDS, KENTUCKY BLUE GRASS, HUNGARIAN, ORCHARD, ITALIAN RYE, RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL, CHOICE CALIFORNIA ALFALFA, WHITE CLOVER, RED CLOVER, Etc.

Also, RAMIE, JUTE AND TOBACCO SEEDS; together with a fine and complete collection of TREE SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGANTEA, PINUS INSIGNIS, Etc.

For Sale, wholesale or retail, by

B. F. WELLINGTON,

(Successor to E. E. Moore).
425 Washington St., San Francisco. 22v7-1y

CARD.

EXCELSIOR FORCE PUMP greatly improved. COPPER LINED BRASS VALVES AND VALVE SEATS every way equal to a BRASS PUMP. PRICES reduced. Send for Circular. BRITTAN, HOLBROOK & CO., Agents.

GREAT EASTERN AND WESTERN

Horse and Mule Market,

Cor. Fifth & Bryant Streets, San Francisco.

A choice stock of Carriage, Draft and Farm Horses on hand, and constantly being received from the East. All classes of Horses and Mules purchased and sold.

WASHBURN & RANDALL, Props

EMPIRE PARLOR MATCHES

We have imported the requisite Machinery and Chemicals to add to our previous assortment of Matches the celebrated Parlor Match, deviously popular among families and smokers, on account of its brilliant burning qualities, and absence of smell or odor. Manufactured from the best sugar pine, a wood superior to any other, and found only upon the Pacific Coast. They are full cown, and without objection of any kind. Packed in boxes of most desirable style. Brimstone and Safety Matches of superior quality manufactured, and are guaranteed to give entire satisfaction. Encourage Home Industry, and get superior goods at less cost than the imported article. Ask your grocer for the EMPIRE PARLOR MATCHES, and be sure you get no others. For Sale by all Grocers.

B. BENDEL & CO.,

MANUFACTURERS, 318 FRONT STREET.

FACTORY—Corner Eleventh and Harrison streets, S. F. 166-60w

BREEDERS' DIRECTORY.

PURCHASERS OF STOCK WILL FIND IN THIS DIRECTORY THE NAMES OF SOME OF THE MOST RELIABLE BREEDERS. OUR RATES—Six lines or less inserted in this directory at 50 cts a line per month, payable quarterly.

CATTLE.

R. ASHBURNER, Baden Station, San Mateo Co., Cal., breeder of Short-horn cattle. Pure Bred Bulls for sale, from cows of choice milking strains.

J. BREWSTER, Galt Station, Sacramento Co., Cal., breeder of Short-Horn Cattle.

J. D. CARR, Gabilan, Monterey Co., Cal., breeder of Trotting Horses, Short-Horn Cattle, Thoroughbred Spanish Marino Sheep and Swine.

A. MAILLAIRD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.

W. L. OVERHISER, Stockton, San Joaquin Co., Cal., breeder of Short-Horn Cattle and Berkshire Swine.

PAGE BROTHERS, 304 Davis street, San Francisco, (or Cotate Ranch, near Petaluma, Sonoma Co.): Breeders of Short-Horns and their Grades.

STANTON & POWERS, Sacramento, Cal. Breeders of Jersey Heifers and Bull Calves at low rates. Address L. C. Powers, Sacramento, Cal.

MOSES WICK, Oroville, Butte Co., Cal., breeder of Short-Horn Cattle. Young bulls for sale.

SHEEP AND GOATS.

H. F. BUCKLEY, Hopeton, Cal. Thoroughbred also 3/4 and 1/2 Cotswold grade sheep.

MRS. ROBERT BLACOW, Centerville, near Niles Station, Alameda Co., Cal. Pure-Blooded French Merino Sheep for sale.

N. GILMORE, El Dorado, El Dorado Co., Cal., importer and breeder of Angora Goats.

LANDRUM & RODGERS, Watsonville, Santa Cruz County. Pure-Bred Angora Goats and Cotswold Sheep for sale.

SEVERANCE & PEET, Niles, Alameda Co., Cal., breeders of Thoroughbred Spanish Merino Sheep.

A. G. STONESEFER, Hill's Ferry, Stanislaus Co., Cal., breeder of Pure-Blooded French Merino Sheep.

L. U. SHIPPEE, Stockton, Cal. Importer and Breeder of Spanish Merino Sheep, Durham Cattle and Essex Swine.

POULTRY.

GEO. B. BAYLEY, Cor. 16th and Castro streets, Oakland, Cal. Imported Brahmas and other choice Fowls for sale.

ALBERT E. BURBANK, 43 and 44 California Market, San Francisco, importer and breeder of Fancy Fowls, Pigeons, Rabbits, Etc.

M. EYRE, Napa. Bronze Turkeys, Emden Geese, Choice Fowls, Pigeons, Rabbits, Ferrets.

WILLIAM KNOWLES, Brooklyn, Alameda Co., Cal. has for sale Eggs for Hatching, carefully packed, from pure-bred Bronzes Turkeys, at \$7.50 per dozen; Brown Leghorns at \$4.00 per dozen; Houdans, White Leghorns and Buff Cochins at \$3.00 per dozen; two dozen for \$5.00. Sent C. O. D. to any address.

Mrs. L. J. WATKINS, Santa Clara. Premium Fowls. White Leghorns, S. B. Hamburg, Game Bantams, and Aylesbury Ducks, Also, Eggs. 21v8-3t

Live Stock Notices.



Pure Blooded French Merino Rams

For sale by MRS. ROBERT BLACOW, of Centerville, Alameda County, Cal., near Niles Station, on the Western and Southern Pacific Railroad.

These Sheep are guaranteed of pure descent, from the French Imperial Flock at Rambouillet, and are equal, if not superior, to any of this breed in size and quality of wool, and are proved to be the heaviest shearers in the world.

JUST ARRIVED FROM THE EAST,
Fifty Head of
Choice Spanish Merino Ewes,
Thoroughbred.

MAY BE SEEN AT SWEENEY'S STOCK YARDS,
Cor. Tenth and Howard Streets.

These Ewes are in lamb, and of the best stock produced in Addison County, Vermont. The owner has also one Ram remarkable for fineness, who is half brother to Big Leg, recently sold by Messrs. Severance & Peet, of this State, for \$1,400. As an assurance that these Sheep are what I claim them to be, I refer parties interested to CHRISTY & WISE, No. 407 Front Street, San Francisco.

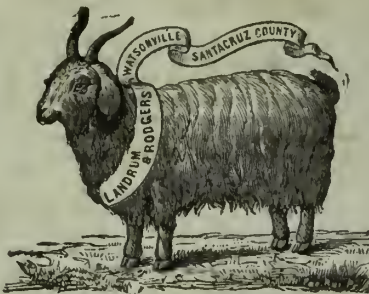
F. E. BENTON.

FOR SALE.

400 Pure Blood French Merino Rams,

On the Oristimba Ranch, six miles west of Hill's Ferry, Stanislaus County, Cal. All Rams delivered at the railroad, free of charge. Terms easy and prices liberal.

A. G. STONESEFER.



We respectfully invite the attention of wool growers to our fine stock of Cotswold Sheep and Angora Goats. We have 200 head of Pure Bred Angoras to select from; we have some of the finest Goats in America; we guarantee everything we sell to be as represented; our prices are as low as any in America for the same grade of stock. Call and see, or address,

LANDRUM & RODGERS,

13v7-60w-1f

Watsonville, Cal.

E. W. WOOLSEY, BREEDER OF



Thoroughbred Spanish Merino Sheep,

From Vermont Premium Stock,

At Berkeley, Alameda County. Horse cars every half hour from Broadway Station, Oakland.

CITY OFFICE, 418 CALIFORNIA STREET, S. F.

Thoroughbred Spanish Merinos FOR SALE.

60 one and two-year old Thoroughbred Spanish Merino Rams, California bred, from Ewes imported from Vermont, and sired by Severance & Peet's Celebrated Ram "Fremont," and by their Ram "Green Mountain," which took the first premiums at the Bay District and State Fairs. Last shearing—35 1/2 lbs.—years' growth.

Also, about 100 Ewe and Ram Lambs, all of "Green Mountain" Stock, bred this year.

B. F. WATKINS,

Santa Clara, Cal.

12 Short-Horn Bulls,

fat and sleek, thoroughbred, just from Kentucky, at Saxe's Stables, 35 Bitch Street, between Folsom and Harrison, two blocks from Grand Hotel. Inquire at Saxe's Stables, or Room 32 Russ House. 3v9-3m

CHARLES CLAYTON & CO., Commission Merchants

—IN—

GRAIN, FLOUR and WOOL,

N. E. COR. FRONT & CLAY STREETS,

SAN FRANCISCO.

THE CELEBRATED

H. H. H.

HORSE MEDICINE

IS STILL AHEAD OF ALL OTHERS.

The Wholesale Druggists of San Francisco, give evidence of its appreciation throughout the State, by and rapidly increasing orders. We pledge it a cure for SPRAINS, WIND GALLS, SWEENEY, SCRATCHES, LAME AND STIFF JOINTS, CALLONS, LUMPS, AND ALL BLEMMISHES, SPRAINS OR BRUISES.

It is a household blessing and no family should be without a bottle in the house. For sale everywhere.

WILLIAMS & MOORE, Prop's.,

Stockton, Cal.

FARM HANDS.

The Grangers' Scandinavian American Employment Office

Has been removed from 6 Liedesdorff to 608 Clay street, and Consolidated with the Pacific Coast Employment Office. This office is in constant communication with Grange Headquarters, and is the only one in the city conducted by members of the Order. Our facilities for furnishing MALE and FEMALE help of all kinds are unexcelled by any office in the city. Great care taken to select reliable help. Chinese Orders for Servants, in door and out, promptly filled.

In ordering help, be particular in describing work, wages, fare, etc., Real Estate and General Business Agency.

PHILIPS & FLIGGLE.

The Employment Office of Talbot & Co. has no connection whatever with the Granges.

I. G. GARDNER.

Banking.

Grangers' Bank of California.

(Incorporated April 27th, 1874.)

Offices, 415 California street, San Francisco.

CAPITAL authorized, \$5,000,000, in 50,000 shares of \$100 each. Subscribed, \$2,568,700. (Number of shareholders, 1,571). Paid up, \$481,200.

DIRECTORS—J. V. WEBSTER, President; CALVIN J. CRESSEY, Vice-President; C. S. ABBOTT, J. P. CHESMAN, G. W. COLBY, J. H. HILL, J. LEWELLYN, THOS. MCCONNELL, J. C. MERRYFIELD, A. F. WALCOTT, F. J. WOODWARD.

OFFICERS—Managing Director, CALVIN J. CRESSEY; Cashier, ALEXANDER WATSON; Secretary, FRANK A. CRESSEY.

The bank was opened on the 1st of August, 1874, for the purpose of affording additional banking facilities to the producers of the State, and for the transaction of ordinary banking business.

CURRENT ACCOUNTS are opened and conducted in the usual way, and interest allowed on the minimum monthly balance at the rate of three per cent. per annum.

CERTIFICATES OF DEPOSIT are issued in sums of \$50 and upwards, payable on 30 days' notice of withdrawal, bearing interest at rates varying with the current rate of discount.

TERM DEPOSITS are received in gold, silver or currency, and interest allowed as follows, namely: Three months, six per cent. per annum; six months, seven per cent. per annum; one year, eight per cent. per annum.

COLLECTIONS are made throughout the State on the most favorable terms.

DISCOUNTS—The bank advances on real estate in the different counties, on merchandise and grain in warehouse, etc., with a fair margin, charging a uniform rate of one per cent. per month. Discount days, Tuesday and Friday.

ALEXANDER WATSON, Cashier.

Anglo-Californian Bank.

LIMITED.

Successors to J. Seligman & Co.

London Office.....No. 3 Angel Court
San Francisco Office.....No. 412 California street.

Authorized Capital Stock, \$6,000,000,

Subscribed, \$3,000,000. Paid in, \$1,500,000.

Remainder subject to call.

DIRECTORS IN LONDON—Hon. Hugh McCulloch, Renben D. Sassoon, William F. Schollfield, Isaac Seligman, Julius Sington.

MANAGERS:

F. F. LOW and IGNATZ STEINHART,
SAN FRANCISCO.

The Bank is now prepared to open accounts, receive deposits, make collections, buy and sell exchange, and issue Letters of Credit available throughout the world, and to loan money on proper securities. 2v7i-cowbp

California Farmers Mutual Fire Insurance Association.

Office, 6 Leidesdorff St., - San Francisco.

Directors:

A. W. THOMPSON, I. C. STEELE,
I. G. GARDNER, J. C. MERRYFIELD, J. D. BLANCHARD,
G. P. KELLOGG, Treas.

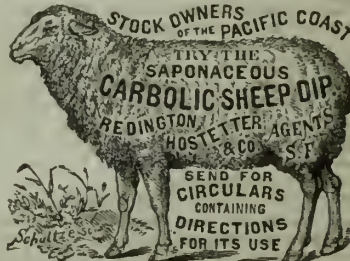
Finance Committee:

I. G. GARDNER, J. C. MERRYFIELD, A. W. THOMPSON

Trustees:

J. M. HAMILTON, Lake Col. C. STEELE, San Mateo Co
J. C. MERRYFIELD, Solano Co. A. B. NALLEY, Sonoma Co
G. W. COLBY, - Butte Co. O. S. ABBOTT, S'ta Barba Co
H. B. JOLLEY, - Merced Co. A. W. THOMPSON, Sonoma Co
A. WOLF, San Joaquin Co. E. W. STEELE, S.L. Obispo Co
J. D. BLANCHARD, Pres't. W. H. BAXTER, Sec'y.

This association is organized for the purpose of affording the farmers of this State the means of safely insuring against loss by fire, at actual cost of insurance, without being connected with city risks. a823-1f



This is a Sure Cure for Screw Worm, Scab and Foot Rot in Sheep. It also kills Ticks, Lice, and all Parasites that infest Sheep.

Prevents scratching and greatly improves the quality of the wool. One gallon of the Dip properly diluted with water will be sufficient to dip one hundred sheep, so that the cost of dipping is a mere trifle, and sheep owners will find that they are amply repaid by the improved health of their flocks.

The Dip is guaranteed to cure when used according to directions, and to be vastly superior to Corrosive Sublimates, Sulphur, Tobacco, and other remedies which have heretofore been used by farmers.

Circulars sent, post paid, upon application, giving full directions for its use, also certificates of prominent sheep growers who have used large quantities of the Dip, and pronounce it the most effective and reliable known Cure and Preventive of Scab and other kindred diseases in Sheep. mrl3-bp

FOR SALE

In the Riverside, New England and Santa Ana Counties, in the valley of the Santa Ana river, San Bernardino county, California, twenty thousand (20,000) acres of clean, rich, level, valley land, with an abundance of water for irrigation. There is no better land in the State for the orange and all other semi-tropical fruits, and no finer climate in the world. Inquire of W. T. SAYWARD, 420 Montgomery street, San Francisco; S. C. EVANS, Fort Wayne, Indiana; C. I. HUTCHINSON, 314 California street, San Francisco; L. UPSON, General Agent, Riverside, San Bernardino county, Cal.

Brittan, Holbrook & Co., Importers of Stoves and Metals, Tinners' Goods, Tools and Machinery, 111 and 113 California, 17 and 19 Davis streets, San Francisco, and 179 J street, Sacramento.

SAFE INVESTMENT.

The Pacific Coast Twelve Per Cent.
Consols.

NEW METHOD WITH ASSURED AD-
VANTAGES.

A rapidly growing interest is being taken in the Pacific Coast Twelve Per Cent Consols, in consequence of the many advantages offered in regard to investment, interest and dividends. So much uncertainty exists in connection with nearly all mining and other speculative companies, there is something very assuring in an incorporation which not only guarantees twelve per cent. per year to all stockholders, but provides for the honest payment of dividends. The Twelve Per Cent. Consols were incorporated on the 12th of February last, for the purpose of transacting a general business in buying and selling mining properties, city real estate, and agricultural and other lands, in the States and Territories of the Pacific Coast. Determined to do only a strictly legitimate business, the Directors rejected the old method in vogue by mining companies generally, and adopted a new one which secures to all parties who become shareholders, equal advantages in the business transacted. By the provisions of the by-laws,

A Sinking Fund

Is to be made of one-half the proceeds of the total capital stock, which shall be sold on the joint account of the original co-owners. The stock will be classified as follows: Sinking Fund, mining property, city real estate and agricultural lands. Before any stock is issued in any class, the property will be appraised by the owners, and the stated value entered upon the books of the Company. Shares for not more than fifty per cent. of the valuation will be issued in any of the classes, and the amount of shares offered for sale in any one class, exclusive of the sales of stock in the Sinking Fund, will not be allowed to exceed 50,000, if sold at less than the par value of a dollar per share.

Guarantees of Safety.

In regard to the Sinking Fund, which will constitute fifty per cent. of the par value of the stock, all moneys received as the proceeds of sales of stock on account of the fund will be deposited with some solvent banking institution, which pays interest on deposits invested in interest bearing stocks, bonds and other securities, which can be realized on in thirty days, and in no case will it be lawful for the directors or trustees to invest any moneys of the Sinking Fund in the purchase of stocks, bonds or other securities of any incorporation whatever, which shall have failed to pay interest or dividends for a period of six months preceding any proposed investment pertaining to the Sinking Fund of the Company.

Payment of Interest.

The by-laws further make positive provision for the payment of interest monthly on all stock issued in each class at the rate of twelve per cent. per annum, payable on the 5th day of each month. Another important concession is that any shareholder has the option to take stock in payment for interest at par value in any class that may be preferred. No assessment will be levied until the total stock of the Sinking Fund shall have been sold and paid out as provided by the by-laws. Indeed, so secure is the plan of the Company that in case the whole capital stock of the Company should be sold immediately and the Sinking Fund invested as provided, the proceeds would be sufficient to pay the interest for eight years and a half on the total capital stock. Perhaps no other company in the world has ever been able to present so brilliant a certainty.

Dividends.

Stockholders will not only be sure of their twelve per cent. per annum, but will share in all the surplus profits. The dividends will be paid from the profits and sales of property, and only on shares of consols that have been issued for property valued and entered on the books of the Company. As there can be very little question that the transactions of the Company will be very extensive, and that the profits will rapidly reach something handsome, the dividend prospect should serve as a strong inducement to stock purchasers, for perhaps in no other direction can they be positive of receiving one per cent. a month for money invested, and almost a certainty of large yearly dividends in addition.

A further provision can be made at any time by the Company by setting aside the percentage agreed upon of the sales of the properties of the Company. The main object of the directors is to incorporate a more legitimate and assured method of transacting business in mining and property than has hitherto obtained on this coast. They are therefore resolved to touch nothing but bona fide investments, and to make it a rule to have nothing to do with speculative values. Every possible care will be taken to protect the interests of shareholders; and in order that they may be constantly posted in the transactions of the Company, a monthly statement of affairs will be prepared by the officers, and the books will be at all times open for inspection. Shares for the first series issued for mining property in Washoe, Storey and Lyon counties, and on the Consol stock lode in Nevada, and for account of Sinking Fund, will be ready for delivery to subscribers and purchasers to-morrow, at Greenbaum & Co's, 306 Montgomery street. The set selling rate will be one-twenty, and the buying rate one-nineteen. The principal office of the Company is at 306 Montgomery street. T. Phelps is the President, and W. S. Reynolds the Secretary.

my22eowbp

J. M. NEVILLE.

G. H. BRYANT

NEVILLE & CO'S FACTORY

113 Clay and 114 Commercial Sts.,

SAN FRANCISCO.

BAGS of All Kinds,
TENTS, All Sizes and Descriptions.
HOSE for Hydraulic Use.
CANVAS, All Numbers.
TWINE for Sewing, Etc.

O. LAWTON & CO.

1875.

Established 1852.

FRUIT JARS.

"THE GEM."

Glass Cover, with Metal Ring.

"THE MASON."

Porcelain Lined, Screw Cover.

Fruit Comes in Contact with no Metal or Rubber in these Jars.

In offering "The Gem" and "The Mason" Jars to the Pacific Coast Dealers, it is with the full assurance that they are the best in market, and that the most desirable qualities of all other Jars will be found combined in these two. Send for Circulars and Price List.

O. LAWTON & CO.,

Nos. 609 & 611 Market St.,

SAN FRANCISCO.

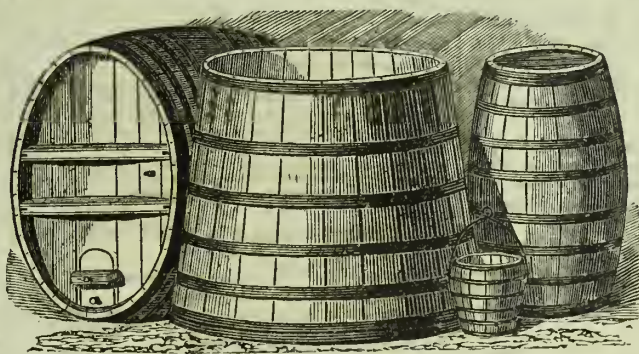
CALIFORNIA WINE COOPERAGE AND MILL CO.

30, 32 & 34 Spear St.

M. FULDA & SONS

Proprietors.

Manufacturers of

WATER TANKS, SHIP
TANKS, MINING
WORK,WINE, BEER AND LIQUOR
CASKS, TANKS, ETC.Cooperage and Tanks, Steamed
and Dried Before or After
Manufacture at Reason-
able Rates.Sawing, Planing, etc.
at Short Notice. eowhp

THE CALIFORNIA

STANDARD BURLAP SACK COMPANY

OF SAN FRANCISCO,

Now offer for sale their GRAIN BAGS, 22x36 and 20x36, sewed by Machinery with the best of Flax Twine, warranted not to rip in filling, the stitch being the same as the Dundee hand-sewed Sack. The sewing has been examined by good judges, and pronounced superior to any other.

SAMPLES SENT ON APPLICATION AT THE

Factory, No. 36 Clay Street.

A. J. GOVE, Superintendent.

For Sale in Quantities to Suit by

I. FRIEDLANDER,

Cor. California and Battery Sts.,

SAN FRANCISCO, CAL.

Books Published by

A. ROMAN & CO.,

SAN FRANCISCO.

THE RESOURCES OF CALIFORNIA. By John S. Hittell. Sixth Edition, rewritten. "The most complete and comprehensive work of the kind."
One volume, 12mo., cloth.....\$1 75
One volume, 12mo., paper.....1 25
NEVADA AND CALIFORNIA PROCESSES OF GOLD AND SILVER EXTRACTION. By Guido Kustel. The best practical work on the subject.
8vo., cloth.....4 00
8vo., leather.....5 00
LEGAL TITLES TO MINING CLAIMS AND WATER RIGHTS IN CALIFORNIA. By Gregory Yale. 8vo., leather.....5 00
TREATISE ON SILK AND TEA CULTURE AND OTHER ASIATIC INDUSTRIES. Adapted to the soil and climate of California. By T. A. Kendo. 16mo., cloth.....50
SULPHURETS. What they are, how Concentrated, how Assayed, and how Worked, with a chapter on the Blow-pipe Assay of minerals. By Wm. Barstow, M. D. 12mo., cloth.....1
A liberal discount to Booksellers and Newsdealers from the above prices.
Any of the above works will be sent, postage prepaid, on the receipt of the price, by the publishers,
A. ROMAN & CO., No. 11 Montgomery St., S. F.
eow-bp

LAND PLASTER.

(Sulphate of Lime.)

This fertilizer is especially well adapted to California lands and climate, and is destined to be used to immense advantage.

PRICES GREATLY REDUCED.

In bulk, \$10 per ton; in barrels or bags, \$12.50.

Golden Gate Plaster Mills.

LUCAS GESNER & CO.,

216 and 217 MAIN STREET, SAN FRANCISCO.

FARMERS' UNION.

SUCCESSOR TO A. FRYSTER & CO.,

Cor. Second and Santa Clara Sts., San Jose.

CAPITAL, \$100,000.
WM. ERKSON, PRESIDENT
H. E. HILLS, MANAGER
Directors.—Wm. Erkson, L. F. Chipman, Horace Lillie, J. P. Dudley, David Campbell, James Singleton, Thomas E. Snel, O. T. Settle, E. A. Bailey.
Will do a General War and Business, also receive deposits, on which such interest will be allowed as may be agreed upon, and make Loans upon approved security.

Averill Chemical Paint,

MANUFACTURED BY THE

Cal. Chemical Paint Co.

PURE WHITE, AND ANY SHADE OR COLOR.

This Paint is prepared in liquid form, READY FOR APPLICATION—requiring no thinner or dryer, and will not spoil by standing any length of time.

It is Cheaper, more durable, more Elastic, and produces a more Beautiful Finish than the best of any other Paint.

It will not Fade, Chalk, Crack, or Peel off, and will last twice as long as any other Paint.

In ordering White, state whether for Outside or Inside use, as we manufacture an Inside White (Flat) for inside use, which will not turn yellow, and produces a finish superior to any other White known.

Put up in $\frac{1}{2}$, $\frac{1}{4}$, 1, 2 and 5 gallon packages, and in Barrels. Sold by the Gallon.

For further information send for Sample Card and Price List, or apply to the office.

OFFICE and DEPOT:

117 Pine Street, near Front.

FACTORY:

Cor. 4th & Townsend Sts.

3v3-cow-hp-ly

SAN FRANCISCO, CAL.

SANBORN & BYRNES.



Mechanics' Mills, Mission Street,

Between First and Fremont, San Francisco. Orders from the country promptly attended to. All kinds of Hair Material furnished to order. Wood and Ivory Turners, Billiard Balls and Ten Pins, Fancy Novels and Balusters.

BRASS MOUNTED MICROSCOPES.

Just arrived, another lot of those Brass Mounted Microscopes. Just the thing to examine fungus in wheat, mites on trees, shrubs, etc. Sent free to any address on receipt of (\$1) one dollar greenbacks, postage stamps or silver.

Address, CHAS. P. KIMBALL,

513 Hayes Street, San Francisco, Cal.

LOOK TO YOUR INTEREST!



MANUFACTURED BY THE

PACIFIC RUBBER PAINT

COMPANY.

For many years chemists and others have experimented in mixing India Rubber with Oil, Lead, etc., in order to produce a perfectly

WATER-PROOF PAINT,

And at last successful in their effort, have formed a chemical combination of Rubber with oil paints, which when applied becomes hard and elastic enough not to crack or peel, from the action of the atmosphere, with a gloss equal to work finished with varnish. The

Pacific Rubber Paint Company,

Of San Francisco, California, together with the RUBBER PAINT COMPANY, of Cleveland, Ohio, own all the patents covering perfect combinations like the above, which is known and sold by them as "Rubber Paint."

The great demand for the Rubber Paint induced this Company to purchase of the Cleveland, Ohio, and New York Rubber Paint Company, the patents for this coat, and are now manufacturing this paint in all colors, in large quantities, and have put the price below the best lead and oil paints. The Rubber Paint is prepared in Pure White, in all Cottage and other colors, comprising any number of different shades and put up ready for use, being a great advantage, as it can be spread by any one.

It Flows From the Brush Freely, Works

Easily, and Settles Promptly. It is avail-

able for all kinds of Painting,

And may be used with equal advantage on iron, stone

wood, brick, or plaster.

The Rubber Paint will cover more surface, cover it better, and last much longer than Lead and Oil. Two coats of the Rubber Paint is better than three coats of Ordinary Paint.

SAN JOSE, CAL., March 20, 1875.

PACIFIC RUBBER PAINT CO., San Francisco.—Gentlemen:—I have used and sold the Rubber Paint in this city during the last four years. We have about one hundred buildings painted with the Rubber Paint. Among the prominent ones are the State Normal School, Gates Institute, City Market; the residence of Josiah Belden, J. W. Hinds, President Gold Note Bank, J. R. Arquello, Santa Clara, etc. It has never failed to give satisfaction, with a test of from one to four years, so that its durability has been well tested. My sales last year were nearly five thousand gallons.

Truly Yours,

AMASA EATON.

REFERENCE:

CAPT. EDWIN MOODY, San Francisco.

AMASA EATON, San Jose.

WILLEY & RINALDO, San Jose.

WALLACE EVERSON, Oakland.

F. K. SHATTUCK, Oakland.

ISAAC KNOX, Esq.

Office and Factory:

Pacific Rubber Paint Co.,

No. 207 Sacramento street,

SAN FRANCISCO, CAL.

my27-sa

AMMONIA!

For Washing and Cleaning Purposes.

For Sale by all Grocers.

This article is universally used in Europe, and recently introduced for general family use in San Francisco and neighborhood, is already in great demand. It is now the intention of the manufacturers to introduce it all over the Pacific Coast, at prices which will bring it within the reach of every household.

It is unequalled for cleaning Woolen Fabrics, Cutlery, Carpets or Crockery; for Scrubbing Floors, Washing Paint, Removing Grease Spots, Spinning or Basting.

It renders water soft, and imparts a delightful sense of coolness after washing.

DIRECTIONS.—For Laundry, use two to four table-spoonsful to a wash tub of water. For bathing, use one table-spoonful in the bath tub. For removing grease spots, apply with a brush, undiluted, and wash with water afterwards. For stimulating the growth of plants, use a few drops in every pint of water used in watering.

PRICE.—Per Pint Bottle, 25 cents; per quart Quart Bottle, 40 cents; per Half Gallon, 75 cents.
Also, SULPHATE OF AMMONIA for chemical purposes, fertilizing, and the preparation of artificial manures. AMMONIACAL PREPARATION for the prevention and removal of boiler scale. CRUDE AMMONIA for general manufacturing and PUR LIQUOR and AQUA AMMONIA for chemical and pharmaceutical purposes.

Manufactured by the

SAN FRANCISCO GAS-LIGHT CO.

eowbp

Grangers' Business Association of Cali-

fornia. Principal place of business, City and County of

San Francisco

Notice is hereby given, that at a meeting of the Board of Directors of the Grangers' Business Association of California, held on the 7th day of April, 1875, an assessment of ten per cent. two dollars and fifty cents per share, was levied upon the capital stock of the corporation, payable May 15th, 1875, to Wm. Vanderbilt, Secretary of the Grangers' Business Association, at his office, No. 6 Leidesdorff street, San Francisco, Cal.

A stock upon which this assessment shall remain unpaid on the day fixed, to wit: May 15, 1875, will be delinquent, and advertised for sale at public auction, and unless payment is made before, will be sold on the 16th day of June, 1875, to pay the delinquent assessment, together with costs of advertising and expenses of sale.

WILLIAM VANDERBILT,

Secretary Grangers' Business Association of California.

Office—No. 6 Leidesdorff street, San Francisco, Cal.

Rice's Straw Burning Engines.

EDITORS PRESS:—On the 24th of May I visited H. W. Rice's machine shop, at Haywood's, Alameda county, and found there thirteen Straw Burning engines in course of construction. Mr. Rice is the pioneer inventor of Straw Burners on this coast. I notice many improvements in the engines for the season of 1875, over the ones of last year. The engines of 1874 were bolted on to the side of the boiler, a plan generally condemned by engineers who have had experience in our harvest fields, on account of the weight and heavy side strain on the boiler, the unequal expansion, liability of leaking by the bolts which secure the engine to the boiler, and the danger of upsetting the engine when moving on steep side hills.

I know of several engines that were upset last season partly from this cause. When the engine is on a side hill, the engine side of boiler on the lower side, with the water, of course, on the same side, it does not require a very large chock hole to upset the machine.

The engine for the present season is on a bed plate and is secured on top of the boiler by eight bolts, in such a manner that it prevents the heating of boxes and reduces the expansion and strain on the boiler. This engine can be easily removed from boiler and used as a stationary if desired. The shaft is extra strong, three and three-eighths inches in diameter, and fitted with two belt pulleys, so that two machines can be run direct from the engine. This is a great advantage over the side engine with its one pulley. The boiler has a dome, made of boiler iron; some engine builders use cast iron for this purpose. To obtain the necessary strength it requires a much greater weight of cast iron than of boiler iron. The engine is fitted with the famous Shive governor, which is so arranged as to change the speed of the engine while running. Every thrasher will readily see the advantage of this changing the speed to suit the work he is doing. The heater passes entirely around the bed plate, thus causing the water to enter the boiler at a very high temperature. The boiler has 205 feet of heating surface; is forty inches in diameter, eight feet long, and weighs about 6,000 pounds. It is mounted on wood or iron wheels, with wide or narrow ties, as ordered. Mr. Rice, on this account, desires to receive early orders, so as to have time to make his wheels suitable for purchasers for their respective localities. Mr. Rice made two sales the morning I called on him, the writer being one of the purchasers. J. W. R.

[The above is written by one of our traveling correspondents, an active engineer in the field during threshing seasons.—EDS. PRESS.]

Irrigation Meeting.

The land owners on the West Side met, pursuant to adjournment, last Thursday at Grayson, for the purpose of taking the preliminary steps toward a permanent organization, and to consider the reports of the various committees appointed at the last meeting.

Contra Costa, San Joaquin, Stanislaus and Merced counties were well represented; there were probably 500 land owners present, many of whom were authorized to speak for the whole community from where they hailed. There was a noticeable absence, however, of the larger owners or speculators.

The assemblage being too large to be accommodated in the hall, the large warehouse on the bank of the river had been prepared for holding the meeting, and thither they adjourned to meet at one P. M.

The first business taken up was the report of the Committee on Constitution and By-Laws. No action was taken on it, however, until after the report of the Committee on Legislation, who presented the rough draft of a bill to be presented to the next Legislature. They say that the work is one of great magnitude, and one which is new to them, that they only present this draft for discussion as to its main features and hope that the convention will return it to them, giving them at least ninety days time to put it in shape to be presented to the Legislature.

The provisions relate almost entirely to the manner of raising the construction fund for irrigating the San Joaquin valley on the West Side from Tulare lake to Antioch, and are essentially as follows:

That the Legislature create the territory above named into an irrigation district; conferring thereon municipal power to levy special taxes, and to issue bonds—which bonds shall be a lien on the land similar to county bonds. The taxes shall be sufficient to pay the interest on the bonds for the first ten years, after which they shall be increased sufficiently so as to pay the whole indebtedness by the end of ten years more.

This municipality, under the new name of the West Side Irrigation district, is to be divided into five divisions, each of which elects a commissioner, who form a Board of Commissioners, and who manage the entire affairs of the district. The sum necessary, under the provisions of the bill, for any one year, having been ascertained by the commissioners, is filed with the Board of Supervisors of the different counties together with a list of the land subject to taxation, and is levied and collected in the same manner and by the county officers at the same time as other State and County taxes, and is paid over with the State tax to the State Treasurer, who also handles the bonds of the district and pays the coupons when due out of the fund as above.

The right to water is free to land owners other than the construction expenses, and is made inseparable from and to pass with the title of the land.

The discussion on the various clauses of this report took up the time of the convention until five P. M., when the convention adjourned to meet at seven P. M.

After recess the report of the Finance Committee was accepted, and after much discussion on the subject of immediate action, what might be done and under whose supervision, the meeting again adjourned to meet at eight A. M. next day, when it was decided that under the name of the West Side Irrigation district, divided into five divisions by county lines, the people of each division here assembled should respectively nominate a commissioner to act in this matter under instructions from this convention until an election of permanent officers could be held.

The result of this resolution was the nomination and ratification by the unanimous vote of the convention of the following temporary commissioners: Contra Costa, A. C. Wristen; San Joaquin and Alameda, Mar-

tin Lammers; Stanislaus, J. R. McDonald; Merced, J. L. Crittenden; Fresno and Tulare, G. Majors. The committee was then instructed to take the report of the Committee on Legislation as their general guide in whatever might be done for the present, and a general election was ordered for the 19th of June, to be held at various election precincts in the several counties. Grayson was selected as the principal place of business. GEO. COPLAND, Secretary.

—Stanislaus News, May 28th.

General News Items.

THE Committee of the New York Board of Trade on postal affairs having received information from a large number of merchants in New York that the postal expenses on newspapers and letters under the new law have doubled, will soon confer with Postmaster-General Jewell and the Postmaster of New York upon the measures necessary for the repeal of the obnoxious law.

A TERRIBLE calamity occurred at Holyoke, Mass., last Thursday evening. The Catholic church took fire during service, and 75 men, women and children were killed, either burned to death or trampled under foot by those who escaped from the building.

THE total value of imports of silk manufacture at New York in May was \$1,315,039. During the same time 1,062 packages of raw silk were received, of which 856 were via Panama, 20 via overland routes, and 186 from Europe.

THE express office of Wells, Fargo & Co., at Quincy, Plumas county, was entered on Monday night by parties unknown. The safe was taken from the office, cut open, and robbed of \$2,600 in coin and treasure.

THE Sioux still haunt the halls of the Interior Department in Washington. Meanwhile the Black Hills adventurers are turned back and have their outfits destroyed by Government troops.

THE Japanese, finding that imported American catspaw tickled their palates, essayed an imitation compound made from domestic felines, but were unsuccessful.

JAMES SULLIVAN shot Thomas Carroll through the heart in a saloon in this city last Sunday, and the Coroner's jury says he did it in self defence.

EARTHQUAKES in Asia Minor are serious things. One last week destroyed 600 houses and killed and wounded 300 people.

BAKERSFIELD has experienced an earthquake shock, and they say some of the people are shaking yet.

ADMIRAL POLO, formerly Spanish Minister to the U. S., was killed by a shot from a Carlist battery, one day last week.

PRESIDENT Grant has written a letter (not a book) defining his position on the third term question.

MONEY is a drug in the Eastern market, and five per cent. is the best rate for loans on first-class securities.

FRANK MELVILLE was assassinated by a man named White on the Barbary coast last Sunday night.

THE James M. Donahue now makes two round trips each day in connection with the N.P. & R.

FIFTY clerks are soon to be discharged from the Pension Bureau in Washington.

OUR State exchanges are beginning to sgitate the question, "Shall we celebrate."

DECORATION day was generally observed throughout the country.

THE British Arctic expedition sailed from Portsmouth last Saturday.

THE Svalara has returned from the Transit of Venus expedition.

THE steamer City of Hartford was sunk in Hellgate last week.

BOYTON has succeeded in crossing the English channel.

THEY have an immigration bureau in Kern county.

GEN. COXY has been presented with a gold medal.

ONE thousand and seventeen acres of the Guadalupe rancho, situated about eight miles south of Salinas city, were rented the other day for a term of years to A. Blouquist, for \$1,000 per annum—less than \$1 per acre.

J. EMORY, of Pintah creek, commenced his wheat harvest Monday, May 17th. Mr. Emory for the two last preceding years has commenced his wheat harvest on May 16th.

THE editor of the Merced Argus has been shown club wheat whose heads are five to six inches in length, well filled, and the kernels exceedingly large and plump.

THE crops of wheat and barley from Sonora to Jacksonville look very fine for the season.

My Microscope and What I do with it—My wife finds a flea; under the microscope he goes, and what do we have? Why, an animal nearly an inch long, pointed at one end, and with bands running round it somewhat like an armadillo. By daughter brings in the branch of a peach tree covered with animalcula; some of them go under the microscope, and what do we have? Why, animals like grasshoppers, some with wings and some without, and so on. Each day I carry it in my waistcoat pocket. Going into the country, something bothers my neck; up goes my hand and I have it. What is it? Why, a tick; under the microscope, and he looks like a big bed bug, only black. And so it goes; each day brings its studies. The tiny flower assumes large proportions. Wheat, barley and oats are easily examined. All this for one dollar. See Kimball's advertisement in a late number of this paper, as I have one of his microscopes.

PATENTS & INVENTIONS.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

[FROM OFFICIAL REPORTS FOR THE MINING AND SOLENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.]

By Special Dispatch, Dated Washington, D. C., June 1st, 1875.

FOR WEEK ENDING MAY 18TH, 1875.

MACHINE FOR REMOVING BROKEN DRILLS FROM HOLES.—John W. Platt, Mineral City, Nevada.

SASH BALANCE.—JOHN J. PRICE, S. F., Cal.

WAVE POWER MACHINE.—Charles Beckner, Jr. S. F., Cal.

WATER VALVE.—Anthony Chabot (two cases), S. F., Cal.

TRAIN TELEGRAPH.—Alban N. Towne, S. F., Cal.

TRADE-MARK.

FOA MEDICINE.—Yerba Buena Bitters Company, S. F., Cal.

The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue. NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & CO., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with perfect security and in the shortest possible time.

Coming Fairs and Exhibitions.

[Officers of industrial societies will please inform us of their approaching fairs and exhibitions.]

Twenty-second annual fair of the California State Agricultural Society, to commence on the 15th and end on the 25th of September, 1875, at Sacramento.

The Centennial International Exhibition, at Fairmount Park, Philadelphia, will open on the 19th of April, 1876, and close on the 19th of October following.

International Exhibition of Chili, Santiago, will open nominally August 15, 1875, continuing until April 2, 1876. Officially from September 16, 1875, to January 1, 1876. Articles for exhibition may be entered at any time from the 15th of August to the 16th of September and can remain on exhibition if the exhibitor so desires until the 2d of April following.

Tenth Industrial Exhibition of the Mechanics' Institute of San Francisco, commencing Tuesday, August 17, 1875, to continue open at least one month.

American Pomological Society, Fifteenth session, at Chicago, Wednesday, September 8, 1875, continuing for three days.

The Alabama State Grange Fair, at Salina, Alabama, Tuesday, October 26, 1875, continuing five days.

Fifteenth Annual Fair of the Oregon State Agricultural Society, at Salem, commencing Monday, October 11th, 1875, and continuing six days.

The sixteenth annual exhibition of the Santa Clara Valley Agricultural Society will commence Oct. 4th, 1875, at San Jose, and continue for six days.

The second annual Fair of the Nevada State Agricultural Mining and Mechanical Society will commence on the 4th and end on the 5th of October, 1875.

A Noble Helper.

Compliments like the following are richer than fine gold—incentives to us to do our level best for the readers of the RURAL PRESS:

SAN LUIS OBISPO, NOV. 23, 1874.

MESSEURS DEWEY & CO.,

GENTS:—Please find inclosed a check on Messrs. Stuart & Elder for \$4.00, to pay my subscription for the PACIFIC RURAL PRESS for one year. Some two years since I was induced, at the solicitation of Mr. F. M. Shaw to become a subscriber for your invaluable paper. Have been a constant and attentive reader of its columns since that time. My interest increases with the reading. Believing, as I do, that no intelligent farmer, nor any one who wishes to become so, can afford to do without it, you can write me down as a life subscriber. I believe there was a club made up in our Grange for the PACIFIC RURAL PRESS. My name was one of that club. Shall exert myself to have that club subscription continued and enlarged this year. I believe I also subscribed for a copy sent to Mr. W. R. S., Lake P. O., Ohio. When that subscription is about to expire please notify me, as I wish to renew it, and oblige.

Yours very respectfully, G. S.

SUBSCRIBERS are requested to examine the printed address on their papers. If mistakes occur at any time, please report them to this office. The last figures (at the extreme right) represent the year that your subscription is paid to. Next to these the day and month is represented. For instance, your subscription being paid to July 4th, 1876, it would be represented, viz: 7-4-76; or 4/17/76; or July 4, 76.

SANTA ROSA, SONOMA CO., CAL., Jan. 27, 1875.

MESSEURS DEWEY & CO.—Sirs: My Patent is at hand, the receipt of which is hereby acknowledged. Accept my thanks for your energy and promptness in the premises. Yours, etc., Q. C. TEBBS.

OUR Music Teachers use Getze's School for the Parlor Organ, almost exclusively; a fair index of the merit of the work. Price, \$2.50.

WOODWARD'S GARDENS embraces an Aquarium, Museum, Art Gallery, Conservatories, Tropical Houses, Menagerie, Seal Ponds and Skating Rink.

14 GMG OZ.

STEARIC ACID CANDLES
GEO. M. GRANT & CO.
PHILADELPHIA.

The Candles sold under the above well known "brand" are made only of Pure Stearic Acid, twice hydraulic pressed, are not cheapened by adulteration with crude material, and upon burning, give a large and brilliant flame, without running. 1379-2ambp

IRRIGATED LANDS.

Sure Crops and Large Yields—Water Communication with San Francisco and Cheap Freights.

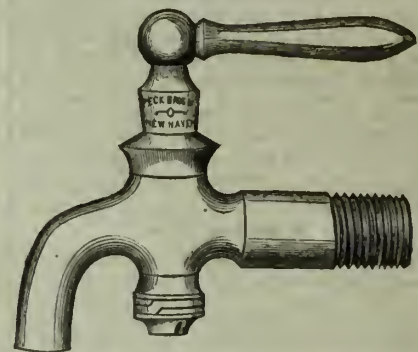
WILL SELL

Three (3) Tracts of Land on Staten Island. The Jersey Tract, 4,000 acres, on San Joaquin River. The Bradford Tract, 2,230 acres, on San Joaquin River. Also, offer other Tule Lands in tracts to suit purchasers.

These are the most desirable grazing and farm lands in the State. Partly cultivated, improved and easy of access.

L. C. McAFEE, Real Estate Agent,
411 1/2 California street, Room 4. S. F.

IRON PIPE



Pipe Fittings & Brass Goods,
AT BOTTOM PRICES.

JAMES L. BARKER,

406 and 408 Market street, San Francisco,

Orders by mail will receive prompt attention mrl3-cow-bp



COOLING, REFRESHING, AND
INVIGORATING ARE THE
EFFECTS OF
ROWLANDS' KALYDOR

On the face and skin of all exposed to the scorching rays of the sun and heated particles of dust. It eradicates freckles, sunburns, tan, and all Cutaneous Eruptions, and produces a beautiful and delicate complexion. In cases of stings of insects it is of the greatest value. Sold everywhere by all chemists, druggists, and patent medicine dealers.

Ask for Rowlands' Kalydor, of 20, Hatton Garden, London, and avoid imitations.

SAN FRANCISCO
EMPLOYMENT OFFICE,
CROSSETT & CO., Prop'rs,
623 and 625 Clay Street, S. F.

COUNTRY ORDERS for MEN almost invariably filled, and with FIRST-CLASS HELP.

German, French, American and Scandinavian help, a specialty. Farmers will secure men in any number desired, especially by giving a little timely notice. Hotels can always get the best of MALE or FEMALE HELP. We have the BEST OF FACILITIES FOR PROCURING DESIRABLE HELP. Send us your orders and we will endeavor to give you satisfaction in every particular at all times.

Farmers and Threshers

WISHING TO HAVE

Straw Burning Engines

For next season must engage them soon, as most of those now building are already sold. Three Engines for Repairs should be sent in now. A number of Second-hand Engines—taken in exchange for "Straw Burners"—for sale cheap. For particulars and prices, address: H. W. RICE, Haywood, Alameda County.

LOCKE & MONTAGUE,

IMPORTERS OF

Stoves, Ranges,

Tin Plate, Sheet Iron, Iron Pipe,

House Furnishing Hardware,

Plain Japanned,

Planished and Stamped

TIN WARE,

112 and 114 Battery Street.

SAN FRANCISCO.

12p

S. F. MARKET REPORT.

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, June 2, 1875.

By reference to our "Agricultural Notes" it will be seen that reports from different sections of the State continue encouraging for the Grain crop. In some sections the farmers are already well engaged in harvesting the Wheat, a good deal of Barley is already taken care of and the Hay crop which has been cured, although light in sections, will on an average prove a good one.

The Liverpool market still continues dull, and this morning's dispatches to the Produce Exchange show a further decline in California Wheat, it being quoted at 8s 10d@9s 1d, while Club is held at 9s 1d@9s 5d. There have been no engagements during the week, and, in fact, there are very few ships in this harbor compared with last year.

On the 22d of May reports were received at Chicago from numerous points in Illinois, Iowa, Michigan, Wisconsin, Minnesota, Kansas, Missouri, Nebraska and Dakota in regard to the condition of spring Wheat in these States. The substance of the information is that the Wheat is generally poor in Illinois. In Michigan an increased average is shown, and the prospects are flattering for a fair crop. In Wisconsin, Minnesota and Dakota the outlook is decidedly encouraging, and an extraordinary yield is probable in Nebraska, if the grasshoppers do not interfere. In some sections the season is backward, and the Wheat is just above ground, but with favorable weather it is thought the general average, in all the States taken together, will not be below the average. In Missouri and Kansas the crops will depend on the result of the grasshopper raid entirely.

Agricultural Implements—We give below the prices of most of the leading agricultural implements in demand at the present season. The prices given is for the machines and implements at the warehouses of the dealers in this city:

MOWERS, REAPERS AND RAKERS—Buckeye Mower, \$125@140; Harvester, \$150; Self-Raker Mower and Reaper combined, \$240; Waiter A. Wood Mower, \$110; Reaper, \$170; Mower and Reaper combined, \$225; Champion Reaper, \$215@240; Mower, \$135@150; Kirby Reaper, \$150@175; Etna Mower, \$125; Mower and Reaper, \$225; Buckeye Rake, \$40; Chaplain's Revolving Rake, \$10; Taylor Rake (steel teeth), \$45; Champion Self-Dumping Rake, \$45; Barnes' Revolving Wood Rake, \$10@12; Paddock Sulky Rake, \$45; Treadwell Revolving Rake, \$35@40.

HEADERS, THRESHERS, ENGINES AND SEPARATORS—Sweepstake Header, \$350@400; Haines' Headers, \$325@400; California Header, \$350@400; Sweepstake Thresher with Carey Power, \$900; Russell End-Shake Thresher, \$425@700; Vibrator Thresher, \$850; Hoadley's Engine, \$1,300@1,800; Ames' Threshing Engine, \$600@3,200; Pitts' Band Separator, \$425@700; Pitts' Horse Power, \$280@335.

MISCELLANEOUS—Hand Rakes, \$4.50; Scythes, \$9.50; Snaths, \$9; Gradles, \$40; Forks, \$7@15; Hoes, \$6@7; wood Barley Forks, \$8@10; steel Barley Forks, \$20 per dozen.

Beans—Receipts since our last, 713 cts. Price unchanged.

Barley—Receipts since our last, 11,547 cts. The market is a trifle weaker. We quote Coast at \$1.37 1/2. **Dairy Produce**—Fresh butter is in good supply at 28@32 1/2 for choice. Oregon may be had for 20@25. Fresh eggs are plenty at 25@26; Ducks, 22 1/2@24, while Oregon bring 24.

Feed—Hay is firm at \$13@17, the latter price being for the best of the old crop. Receipts since our last, 821 tons against 1,345 tons the previous week. Straw, bran and middlings remain unchanged.

Flour—Receipts since our last, 10,629 qr sacks. The market has undergone no change. We quote extra at \$5@5.50.

Fruits—An invoice of peaches was received last Saturday afternoon, but were in hardly a marketable condition. A few boxes have arrived each day since. They are small and hard, but bring 37 1/2¢ per lb. Apples are coming in, but look green and suspicious. The old crop of Strawberries is about gone and the second crop is beginning to come in. They look fine and bring 25 cents per pound. Chile Strawberries are also in the market at 25 cents. Red Raspberries are quite plentiful at 35¢; Apricots of the Royal variety bring 6@12¢, Green Almonds may be had at 12 1/2¢ per lb. Cooking Peas are quoted at \$1.00@1.50 per box. Currants are plentiful at 7@9¢. Cherries come in in large quantities and range in price all the way from 8 to 35¢, according to quality. Sicily Lemons are in the market, retailing at 75¢ per doz.

Fresh Meat—Pork continues firm; Beef and Mutton are higher.

Onions—Receipts since our last, 1,008 sks. We quote them at 1¢@1 1/2¢ per pound.

Potatoes—Receipts since our last, 7,890 sks. The price remains unchanged and there is a ready market for all received.

Provisions—The market remains firm, with but few transactions.

Vegetables—There is a good supply of all seasonable Vegetables. Green Chile Peppers are to be had now at 75¢ per lb.

Wheat—Receipts since our last, 21,768 cts., as against 3,189 the previous week. The aspect of the market is unchanged. Choice milling is to be had at \$1.70.

Wool—Receipts since our last, 2,512 sks., as against 3,189 sks the previous week. Moody & Farish report sales for the week, 125,000 lbs at \$24¢. For latest aspect of the Eastern market see our Wool Department. For other changes see our tables below.

RETAIL GROCERIES, ETC.

WEDNESDAY M., June 2, 1875.

Butter, Cal. oh. 35	@ 40	Brown Bro. large	@ 40
do common 30	@ 32 1/2	can per doz 5.00	@ 5.00
Chesse, Cal. 18	@ 20	Small, do 2.50	@ 2.50
Lard, Cal. 15	@ 20	Can Oysters, doz 2.00	@ 2.00
Flour, extra 15	@ 20	Syrup, S. E. 1.25	@ 1.25
Corn Meal, 24	@ 30	Dried Apples, 8	@ 10
Sugar, wh. 35	@ 40	Dr. Ger. Prunes 15	@ 20
do lb. brown, 22	@ 24	Dr. Figs, Cal. 9	@ 10
do green, 22	@ 24	Dr. Peaches, 11	@ 15
O. G. Java, 22	@ 24	do Peels, 11	@ 15
Tea, fine 35	@ 40	Oils, Kerosene 30	@ 40
do, fine 35	@ 40	Wines, Old Port 3.00	@ 3.00
do, fine 35	@ 40	do Fr. Claret, 1.00	@ 1.00
Candles, Adamant 7	@ 8	do Fr. Ch. 1.00	@ 1.00
Soap, Cal. 8	@ 10	do Fr. Ch. 1.00	@ 1.00
Rice, B. 8	@ 12 1/2	Whisky, O. E. 3.50	@ 3.50
Yeast Powder, 1.50	@ 2.00	Fr. Brandy 4.00	@ 4.00

DOMESTIC PRODUCE.

[WHOLESALE.]

WEDNESDAY M., June 2, 1875.

BEANS.			
Bayo.....	2 1/2	@ 3	
Butter.....	3 1/2	@ 4	
Peas.....	3 1/2	@ 4	
Pink.....	3 1/2	@ 4	
Sm'l w. 3 1/2	@ 4		
BROOM CORN.			
Per B.....	2 1/2	@ 3	
COTTON.			
Cal. 1874.....	15	@ 15	
DAIRY PRODUCE.			
BUTTER.			
Cal. choice.....	27 1/2	@ 32 1/2	
Firkin.....	27 1/2	@ 31	
Oregon.....	20	@ 25	
Chesse, Cal.....	15	@ 15	
Eastern.....	15	@ 15	
EGGS.			
Cal. fresh.....	25	@ 26	
Ducks.....	22 1/2	@ 24	
Eastern.....	18	@ 20	
FEED.			
Brn. per ton.....	20	@ 21	
Corn Meal.....	35	@ 35	
Middling.....	13	@ 15	
Oil cake meal.....	63	@ 65	
Straw, per bale.....	60	@ 65	
FLOUR.			
Extra.....	5.00	@ 5.50	
Super.....	4.00	@ 4.50	
FRESH MEAT.			
Beef, let quality.....	6	@ 7	
Second do.....	4 1/2	@ 5 1/2	
Third do.....	3 1/2	@ 4 1/2	
Mutton.....	4	@ 5	
Pork, undressed.....	7 1/2	@ 8 1/2	
do, dressed.....	10	@ 10 1/2	
Veal.....	5	@ 6	
GRAIN, ETC.			
Barley, Dist.....	137 1/2	@ 140	
do, hewing.....	150	@ 155	
Buckwheat.....	1	@ 1 1/2	
Corn, White.....	1	@ 1 1/2	
do, Yellow.....	1	@ 1 1/2	
Oats, choice.....	2	@ 2 1/2	
Rye.....	1	@ 1 1/2	
Wheat shipping.....	150	@ 155	
do, milling.....	170	@ 175	
HOPS.			
California, 1874.....	27 1/2	@ 30	
MISCELLANEOUS.			
Beeswax, per lb.....	26	@ 27 1/2	
Honey in comb.....	18	@ 22 1/2	
do, strained.....	5	@ 10	
POULTRY & GAME.			
Broilers, small.....	3.00	@ 3.50	
do, large.....	5.00	@ 5.50	
DOVES, PER DOZEN.			
Doves, tame, doz.....	7.00	@ 7.50	
Geese, per pair.....	1.00	@ 1.50	
Hare, per doz.....	1.50	@ 2.00	
Pheasant, per pair.....	1.50	@ 2.00	
Live Turkeys.....	1.50	@ 2.00	
per B.....	18	@ 22	
do, dressed.....	18	@ 22	
Mallard Ducks.....	18	@ 22	
do, small.....	18	@ 22	
Princetons.....	18	@ 22	
Quail, per doz.....	18	@ 22	
Rabbits.....	25	@ 50	
do, same doz.....	3.00	@ 6.00	
Salp. Eng. doz.....	15	@ 15	
Hens, Cal.....	12	@ 14	
Wild Geese, gray.....	15	@ 15	
do, white.....	15	@ 15	
PROVISIONS.			
Cal. Bacon, Light.....	16	@ 17	
do medium.....	15	@ 15 1/2	
do Heavy.....	17	@ 18	
Cal. Smoked Beef.....	10	@ 10	
Eastern do.....	8 1/2	@ 9	
East'n Should's.....	9	@ 10	
do new hams.....	14 1/2	@ 15 1/2	
do Heavy.....	15	@ 15 1/2	
do Whittakers.....	15	@ 15 1/2	
do Duffield, ch.....	14 1/2	@ 15	
do Armort.....	14 1/2	@ 15	
do Boyd's.....	14 1/2	@ 15	
do Stewart's.....	15 1/2	@ 15 1/2	
Lard.....	15	@ 17	
SEEDS.			
Alfalfa, Chili.....	9	@ 14	
do California.....	19	@ 20	
Cenary.....	15	@ 18	
do Heavy.....	17	@ 18	
do White.....	6 1/2	@ 7 1/2	
Cotton.....	6	@ 10	
Flaxseed.....	8	@ 10	
Hemp.....	8	@ 10	
Italian Ryegrass.....	20	@ 20	
do Heavy.....	20	@ 20	
Millet.....	10	@ 12	
Mustard, white.....	1 1/2	@ 2 1/2	
do, Brown.....	1 1/2	@ 2 1/2	
Rape.....	11	@ 12	
do 2d quality.....	40	@ 50	
do 3d quality.....	30	@ 40	
Sweet V. Grass.....	75	@ 100	
Orchard do.....	30	@ 35	
Red Top do.....	25	@ 30	
do Heavy.....	25	@ 30	
Lawn do.....	50	@ 60	
Mequit do.....	15	@ 20	
Timothy.....	8	@ 12	
WOOL, ETC.			
NEEPS.			
Fine long & short.....	13	@ 16	
Medium, good con.....	13	@ 16	
dition.....	13	@ 16	
Medium grade.....	21	@ 24	
Long Staple.....	14	@ 17	
Heavy free.....	13	@ 16	
Ilides, dry.....	15	@ 16	
do wet salted.....	8 1/2	@ 9	
Tallow.....	6	@ 6 1/2	
do Refined.....	5	@ 5 1/2	

FRUITS AND VEGETABLES.

[WHOLESALE.]

WEDNESDAY M., June 2, 1875.

FRUIT MARKET.			
Teatit Or. M 35	@ 40		
Leta, do.....	10	@ 15	
Oal. do.....	10	@ 15	
Limes, M.....	20	@ 30	
Cel. Lemons, M 30	@ 40		
Australian do.....	10	@ 15	
do, do.....	10	@ 15	
Bananas, bch 3	@ 5.00		
Cocoanuts, 1000	@ 100.00		
Pineapples, doz	@ 10.00		
Apples, box 50	@ 35		
Cherries, 14	@ 20		
Blackberries, 20	@ 25		
do wild.....	10	@ 15	
Huckleberries.....	10	@ 15	
Strawberries.....	10	@ 15	
Gooseberries.....	10	@ 15	
Raspberries.....	10	@ 15	
Currants.....	10	@ 15	
do black.....	10	@ 15	
Apricots.....	10	@ 15	
Plums.....	10	@ 15	
Peaches.....	10	@ 15	
do, do.....	10	@ 15	
do ext Mount.....	10	@ 15	
tain, do.....	10	@ 15	
Pears, Bart's.....	10	@ 15	
do Cooking.....	10	@ 15	
Crab Apples.....	10	@ 15	
Apples, box 50	@ 35		
Pears, box 50	@ 35		
Peaches, box 50	@ 35		
Apricots, box 50	@ 35		
Plums, box 50	@ 35		
Pitted, box 50	@ 35		
do Extra, box 50	@ 35		
VEGETABLES.			
Asparagus.....	4	@ 5 1/2	
Beets.....	1	@ 1 1/2	
Cabbages.....	1	@ 1 1/2	
Carrots.....	1	@ 1 1/2	
Cauliflower, doz.....	15	@ 20	
Celery, doz.....	40	@ 50	
Garlic, doz.....	10	@ 15	
Onions, doz.....	10	@ 15	
Raspberries.....	10	@ 15	
Green Corn, doz.....	8	@ 10	
Sun's Squash, doz.....	8	@ 10	
Marro'fat Squash, doz.....	20	@ 35	
Artichokes, doz.....	20	@ 35	
String Beans, doz.....	15	@ 20	
Parasips.....	20	@ 25	
Shell Beans.....	20	@ 25	
Peppers, green, doz.....	15	@ 20	
Okra, Green.....	30	@ 75	
Tomatoes, lb.....	10	@ 15	
Egg Plant, box.....	2	@ 3	
Rhubarb.....	2	@ 3	
Lettuce.....	3	@ 4	
Corn, doz.....	10	@ 15	
Pumpkins, doz.....	3	@ 4	
do New.....	3 1/2	@ 4 1/2	

LEATHER.

[WHOLESALE.]

WEDNESDAY M., June 2, 1875.

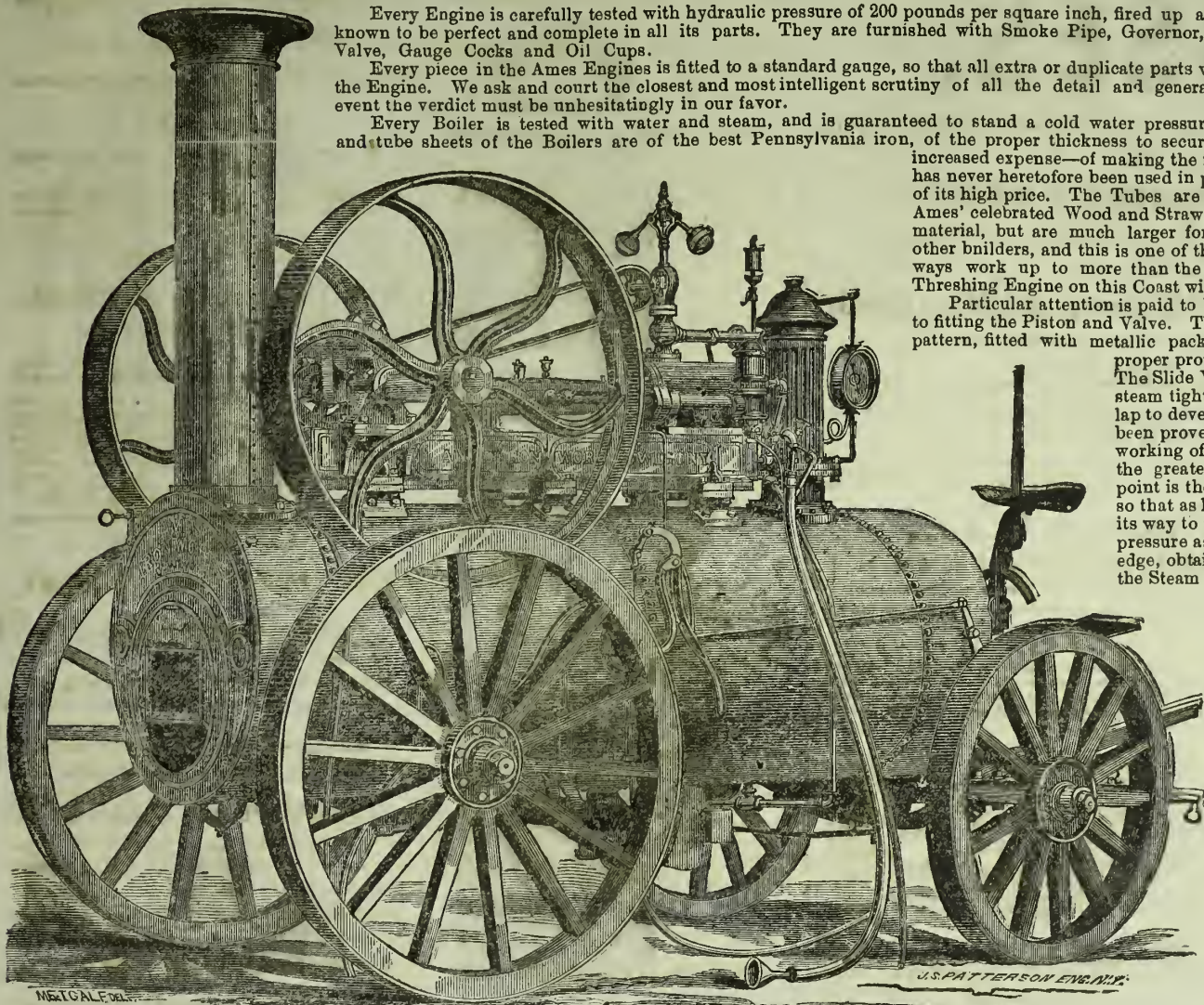
City Tanned Leather.			
Santa Cruz Leather, # B.....	25	@ 29	
Country Leather, # B.....	25	@ 29	
Stockton Leather, # B.....	25	@ 29	
Jodot, 8 Kil. per doz.....	85	@ 90	
Jodot, 11 to 13 Kil. per doz.....	85	@ 90	
Jodot, 14 to 19 Kil. per doz.....	85	@ 90	
Jodot, second choice, 11 to 16 Kil. per doz.....	57	@ 60	
Cornellian, 12 to 16 Kil.....	57	@ 60	
Cornellian Females, 12 to 13.....	57	@ 60	
Cornellian Males, 12 to 13.....	57	@ 60	
Simon Ulmo Females, 12 to 13.....	57	@ 60	
Simon Ulmo Males, 12 to 13.....	57	@ 60	
Simon Ulmo Females, 16 to 17 Kil.....	73	@ 75	
Simon, 18 Kil. per doz.....	61	@ 63	
Simon, 24 Kil. per doz.....	72	@ 74	
Robert Aft, 7 and 9 Kil.....	35	@ 40	
French Kips, # B.....	10	@ 15	
California Kip, # B.....	40	@ 45	
French Sheep, all colors, doz.....	8	@ 10	
Eastern Calf for Backs, doz.....	9	@ 10	
Sheep Roans for Topping, all colors, doz.....	9	@ 10	
Sheep Roans for Linings, doz.....	5	@ 10	
California Russett Sheep Linings.....	1	@ 1 1/2	
Best Jodot Calf Boot Legs, pair.....	5	@ 5 1/2	
Good French Calf Boot Legs, pair.....	4	@ 4 1/2	
French Calf Boot Legs, pair.....	4	@ 4 1/2	
Harness Leather, # B.....	30	@ 37	
Fair Bridle Leather, # B.....	48	@ 50	
Skirting Leather, # B.....	33	@ 37	
Welt Leather, # B.....	30	@ 37	
Wax Side Leather, # B.....	17	@ 20	

LUMBER.

[WHOLESALE.]

WEDNESDAY M., June 2, 1875.

REDWOOD.		Retail Price.	
Rough, # M.....	18	Rough, # M.....	22
Rough refuse, # M.....	14	Fenoin, # M.....	20
Rough clear, # M.....	20	Flooring and Step, # M.....	25
Rough clear refuse, # M.....	20	Flooring, narrow, # M.....	30
Rustic, # M.....	32	Flooring, 2d quality, # M.....	25
Rustic, refuse, # M.....	24	Laths, # M.....	20
Surfaced, # M.....	30	Furring, # lineal ft.....	20
Surfaced refuse, # M.....	20	REDWOOD—Retail	
Flooring, # M.....	20	Rough, # M.....	22
Flooring, refuse, # M.....	20	Rough, # M.....	20
Beaded flooring, # M.....	20	Rough Pickets, # M.....	18
Beaded floor, refuse, # M.....	25	Rough Pickets, p'd, # M.....	20
Half-inch Siding, # M.....	22	Fancy Pickets, # M.....	30
Half-inch siding, ref. # M.....	16	Siding, # M.....	20
Half-inch, Surf. ref. # M.....	25	Surfaced and Long	
Half-inch Surf. ref. # M.....	25	Beaded.....	30
Half-inch Battens, # M.....	22	Flooring.....	20
Pickets, rough, # M.....	13	Do to refuse, # M.....	20
Pickets, rough, p'nt'd.....	16	Half-inch surfaced, # M.....	30
Pickets, fancy, p'nt'd.....	25	Rustic, No. 1, # M.....	40
Shingles, # M.....	30	Battens, # lineal foot.....	20
		Shingles, # M.....	30

AMES' CELEBRATED STRAW AND WOOD BURNING ENGINES.**BEST AND MOST COMPLETE THRESHING ENGINES IN THE WORLD.**

Every Engine is carefully tested with hydraulic pressure of 200 pounds per square inch, fired up and run with 120 pounds steam pressure, until known to be perfect and complete in all its parts. They are furnished with Smoke Pipe, Governor, Heater, Steam and Water Gauges, Whistle, Safety Valve, Gauge Cocks and Oil Cups.

Every piece in the Ames Engines is fitted to a standard gauge, so that all extra or duplicate parts will fit as well as those that originally came with the Engine. We ask and court the closest and most intelligent scrutiny of all the detail and general "make up" of our Engine, being satisfied in that event the verdict must be unhesitatingly in our favor.

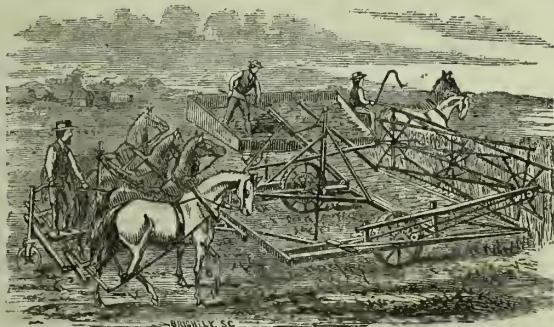
Every Boiler is tested with water and steam, and is guaranteed to stand a cold water pressure of 200 pounds to the square inch. The shell and tube sheets of the Boilers are of the best Pennsylvania iron, of the proper thickness to secure strength—while extra precaution is taken at an increased expense—of making the furnace of the Best Solid Fire Box Plate, which has never heretofore been used in portable engines for threshing purposes, on account of its high price. The Tubes are the best American lap-welded. The Boilers of Ames' celebrated Wood and Straw Burning Engines are not only made of better material, but are much larger for the same price and horse power than those of any other builders, and this is one of the many reasons why the Ames Engines will always work up to more than the horse power at which they are rated; this no other Threshing Engine on this Coast will do.

Particular attention is paid to boring the Cylinder accurately and smoothly, and to fitting the Piston and Valve. The Piston is of the most approved locomotive pattern, fitted with metallic packing rings, which are adjusted by steel springs of proper proportion regarding tension, elasticity and strength. The Slide Valve and its face are made perfectly true and steam tight, and it is constructed with the proper amount of lap to develop the most improved data of expansion that has been proved by numerous experiments to point the correct working of the Engine, in relation to the use of steam, with the greatest economy and efficiency. Another important point is the proper size of the steam and exhaust passages, so that as little as possible of its force is lost by friction on its way to the cylinder, and that there may be as little back pressure as possible in the exhaust. From absolute knowledge, obtained from careful practical experience and use of the Steam Engine Indicator, we have had constructed and proportioned these ever important parts of our Straw and Wood-Burning Engines, and we have no hesitation in claiming decided advantages for them regarding economy in fuel and increased power and efficiency. The Boilers of Straw Burners are of the return tubular pattern, with a large flue in the center, and return flues or tubes, two inches in diameter. Every Engine is fired up and run at our store before it is turned over to the purchaser, so that we know every Engine will give perfect satisfaction.

SOLD ONLY BY

BAKER & HAMILTON,

San Francisco and Sacramento.

OUR IMPROVED HAINES' HEADER,

With Compound Leverage,

Doing away with all Ballast or Weights,

Either on the Lever or Frame; will be appreciated by Header Men. Also, a new device for driving the Knife, making the Header run one horse lighter than any header ever imported. The driving of the Reel is an improvement; in turning, the Reel runs just as fast as when driving straight ahead. The improvements will be found to meet the demands of California trade.

Our Excelsior Mowers are Improved for 1875.

Three Sizes—"Junior," "Medium" and "Senior."

J. I. CASE & CO.'S**SEPARATORS AND STEAM ENGINES**

Are the Largest Works of the Kind in the World.

The Threshers and Engines are Made Expressly for this Trade.

Pitts' Down and Mounted Powers, "Foust's" Hay Loader, and Keller & Co's Sulky Revolving Hay Rake,

An age in advance of any other Rake. See these goods before buying; they can be found with us only. Our Stock of Implements is Complete.

Haines' Header Sickles, Excelsior Mowing Knives, Buckeye Mowing Knives, (Nos. 1 and 2), Sections, Rivets, Etc.

THRESHERS, ENGINES, POWERS, HEADERS, REAPERS, MOWERS, RAKES, HAY PRESSES, CORN PLANTERS, CORN CULTIVATORS, CORN SHELLERS, CIDER AND WINE MILLS, HAY CUTTERS, DERRICK FORKS, BELTING, PUSH CARTS, PLOWS, HARROWS, CULTIVATORS, GORHAM SEEDERS AND CULTIVATORS COMBINED, FISH BROS., PACIFIC WAGONS, REGULATOR WINDMILLS AND PUMPS, ETC.

KELLER & CO., 43, 45 & 47 J Street, Sacramento, Cal.

SEND FOR CIRCULAR.

A GOOD BARGAIN.

\$500 will buy a good, pre-emption claim of 160 acres in Monterey County, with a good Dwelling House that cost more than that amount, situated one-half a mile from the Los Angeles Stage Road, and about the same distance from the line of the Southern Pacific Railroad. Apply to

MRS. ROWLANDSON,
On the Premises, San Antonio, Cal.

**LOOK!**

ALBERT E. BURBANK, Importer and Breeder of Fancy Fowls, Pigeons, Rabbits, etc. Also Eggs for hatching from the finest of imported stock. Eggs and Fowls at reduced prices. Send for Price List.

ALBERT E. BURBANK,
178-8th 43 & 44 Cal. Market S.F.

The Hoadley Regulating Cut-off**THRESHING ENGINES.**

The above cut represents the Hoadley New Style Threshing Engine, 15-horse power, with Patent Cut-off Governor. We also have the same style and size, with HOADLEY'S NEW PATENT STRAW-BURNING FIRE BOX. This new Engine has been thoroughly tested, and we are prepared to warrant it to give satisfaction. OUR GUARANTEE GOES WITH EVERY ENGINE INTO THE FIELD. This new engine is fitted out complete, with High Seat, Foot-Board for Driver, California Roller Brako (not shown in engraving), Iron Hub, Patent Wheels, Forged Bent Axle, and all Mountings in Perfect Order.

THE**Hoadley Straw-Burning Threshing Engine**

Is no heavier than wood-burning engines of same power, and is unquestionably the Best Threshing Engine in the world. It is Lighter, Better Made, Safer, and will do More Work than any other engine of same size and price ever built. THIS FACT IS INDISPUTABLE.

Farmers and Threshers desiring to buy Straw-Burners for coming season, should secure their Engines Early, as the number is not large, and many are already engaged. All Engines will be tested in presence of customers, when required. Send for Circular and Prices. Address,

TREADWELL & CO., Sole Agents, San Francisco.**CHEESE VAT FOR SALE.**

One of the Celebrated Ralf's Cheese Vats, five hundred gallons. Hoops, etc., new, and in perfect order. At a bargain. Enquire at the Carpet and Furniture Warehouse of

JOHN C. BELL.

ALEX. BUSWELL,
BOOK BINDER, PAPER RULER
AND BLANK BOOK MANUFACTURER.

521 Clay Street, S. F.

Blank Books Ruled, Printed and Bound to Order

HAY and WOOL PRESSES.

The Fastest, Strongest, and Best Portable Hay Press in the World is the

PRICE, or PETALUMA PRESS.
400 in Use.

Bales from 12 to 20 tons per day.

Price, \$450, Cash.

The Most Simple, Compact and Effective Cheap Press Known is the

IMPROVED ECLIPSE,

Eight feet six inches high. Weighs 2,000 pounds. Bales from 10 to 18 tons per day. Price, \$300, Cash.

The above machines are delivered at the Factory, San Leandro, Cal.

For further information or for illustrated circulars that answer all questions relating to the above Presses

Address **Price Press Co.,**

16p

Office with **BAKER & HAMILTON, 17 Front Street, S. F.**

GABILAN HERD

SPANISH MERINO SHEEP.

I have just purchased of Mr. George Hammond, of Vermont, three car-loads of Spanish Merino Sheep, (335 head, Ewes and Bucks) which, with others that I purchased last Fall, (also direct from Vermont) makes my band of Thoroughbred Spanish Merinos about 650 head.



I am prepared to sell both Bucks and Ewes, of Pure Blooded Spanish Merinos—as good as can be had in the world—so says Mr. Hammond. Parties interested will please give me a call. I am ten miles from Salinas City, Gabilan P. O., Monterey county.

J. D. CARR.

N. B.—I have also Good Graded Bucks for sale, and can dispose of some Good Graded Ewes. J. D. C.

GEO. B. BAYLEY,
IMPORTER AND BREEDER OF

Jersey Cattle,

Choice Poultry, Etc.



OAKLAND Poultry Yards,

Cor. 16th & Castro Streets, Oakland.

Send stamp for circular, containing a full description of all the best known and most profitable fowls in the country.

G. B. BAYLEY,
P. O. Box 659, San Francisco.

N. B.—A car-load of Jersey Cattle to arrive in June.

PACIFIC RURAL PRESS,

A first-class 16-page Agricultural Home Journal, filled with fresh, valuable and interesting reading. Every farmer and ruralist should take it. It is immensely popular. Subscription, \$4 a year.

DEWEY & CO., Publishers,

No. 224 Sansome street, SAN FRANCISCO.

1874. GUIDE AND CATALOGUE 1875.
FREE.

To persons contemplating purchasing I will send my ILLUSTRATED, DESCRIPTIVE CATALOGUE and GUIDE to the VEGETABLE and FLOWER GARDEN WITHOUT CHARGE. It contains the most extensive and valuable list of



Flowering Bulbs, Roots and Plants, Semi-Tropical Trees, Ornamental Shrubs, Fruit and Shade Trees, etc., ever offered in this market. It tells how to successfully grow the Australian Blue Gum, the Monterey Cypress, Pine, etc., and the proper method of Cultivating Tobacco on this Coast.

My stock of seeds is in part my own raising and in part direct importations from the best European and Eastern growers, and is unsurpassed in all respects by that offered by any other establishment. 100,000 Australian Blue Gums and Monterey Cypress in boxes at from \$30 to \$50 per 1,000, raised at my own Nursery at San Rafael.

R. J. TRUMBULL,

Grower, Importer, Wholesale and Retail Dealer in Seeds, Shrubs, Trees, etc.

2078-6m-16p

427 Sansome street, S. F.

Bronze Turkeys

12 Gobblers from 8 to 20 months old, 22 to 40 lbs each, for sale now. Hens 14 to 18 lbs.



Emden Geese

40 to 50 pounds per pair at maturity.

BLACK CAYUGA DUCKS,

Games, Brahmas, Leghorns, Houdans, Bantams, etc.

Eggs, fresh, pure, true to name; well-packed so as to hatch after arrival.

For Illustrated Circular and Price-List, address—

M. EYRE, Napa, Cal.

FERRETS.

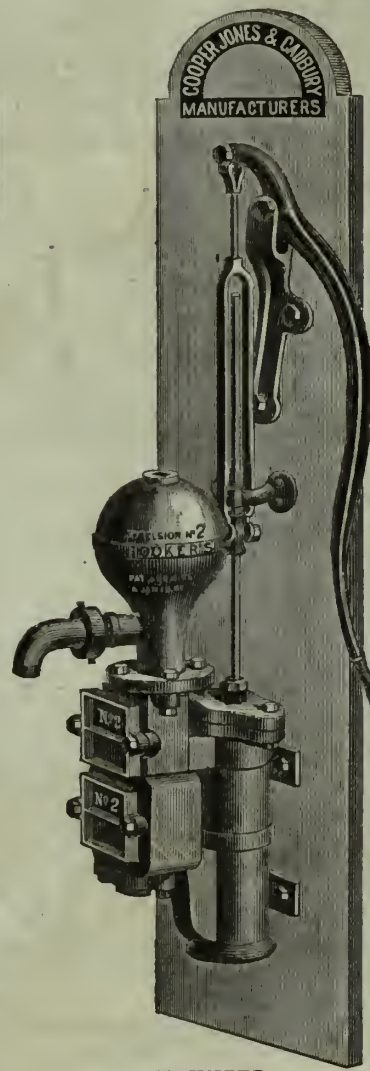
RABBITS.

PIGEONS.

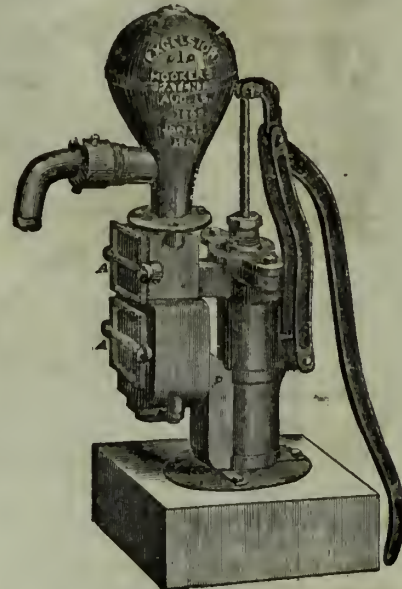
Please state where you saw this advertisement.

THE PACIFIC RURAL PRESS has a larger Circulation than any other Pacific Coast Weekly, independent of a daily issue.

THE "EXCELSIOR" FARMERS' PUMP.
After Eight Years' use, proving itself the Best Pump on this Coast, and consequently the CHEAPEST.



MOUNTED.



BASE.

We can advise all parties to buy the Pump to be worked by hand, windmill or horse power. All sizes for sale.

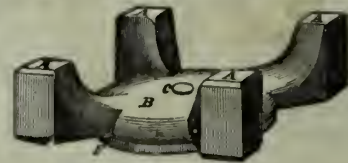
REMEMBER,

Every Pump is tested to 125 lbs. hydraulic pressure per square inch.

Will pump water 250 feet high.

So simple every farmer can keep it in order.

EVERY PUMP WARRANTED.



VALVE.

Send for circular.
mar27-2am

BRITTAN, HOLBROOK & CO.,

111 & 113 California St., S. F., (and also Sacramento,) Gen. Ag'ts

**NEW CROP OF
BLUE GUM SEED.**

GRASS AND CLOVER SEEDS.

FLOWER AND VEGETABLE SEEDS.

TREE AND FRUIT SEEDS.

OF EVERY DESIRABLE VARIETY AND OF THE BEST QUALITY; OFFERED AT WHOLE-SALE OR RETAIL, BY

**GEO. F. SILVESTER,
SEEDSMAN,**

No. 317 Washington Street,

4v8-1f

SAN FRANCISCO

M. FALLON,

Cor. Seventh & Oak sts.,

OAKLAND, CAL.

Light & Dark Brahmas, Buff, White and Partridge Cochins, Spangled, Golden and Silver Polish, Spangled, Golden and Silver Hamburgs, Pure White-faced Black Spanish, White and Brown Leghorns, Silver Grey Dorkings, Houdans, Silkies, Black-Red Games, Bronze Turkeys, Rouen and Aylesbury Ducks.

All from Premium Stock of Best Strains.

Fowls of above varieties for sale; also, Chicks in their season. Eggs packed with care and sent in rotation as orders are received. 1v9-16p-1f

Geo. W. Chapin, Real Estate Agent, 434 Montgomery St., San Francisco, buys and sells Ranches in all parts of the State. City Real Estate exchanged for country property. MONEY LOANED. Post Office Box 1120

Dewey & Co. { 224 } Patent Ag'ts.

Calistoga Real Estate Company.

Calistoga, with a population of about 800 persons, is a village watering place at the head of the valley of Napa, in California. It is four hours' travel north of San Francisco by steamboat and rail.

Its shipping port is Vallejo, on the bay of San Francisco, forty miles distant by rail. It lies at the head of the most charming valley in the State.

THE BEAUTIES OF NAPA.

In traversing this thirty-seven miles of fertile dale, the eye never wearies. If one ascends the sides of the leafy mountains that bound the valley on either side, whether looking up the valley or down, and from whatever point of view, the scene is one of ravishing beauty.

Mounting the summit of St. Helena, which towers over all, far to the east the snowy Nevadas bound the view; and to the west spreads the Pacific ocean, with its winged ships and its blue horizon. To the north are the vast forests of Mendocino, its stately trees, turned to shrubbery and Clear Lake in its pride of expanse dwindled to a mill dam.

THE WARM SPRINGS.

From the beauties of Calistoga we turn to its other attractions. The estate covers 2,000 acres of fertile land. Its warm springs are crowded with invalids, who flock to its healing waters, and who return cured of their rheumatism, their dyspepsia, their torpid livers and their tender kidneys. The medicinal elements of the hot springs are principally iron, magnesia and sulphur. In this climate, the season of watering places is prolonged.

THE SURROUNDINGS.

By consulting a map it will be apparent that Calis-

toga is destined to become a commercial town of importance. It is the center to which converge innumerable highways leading to many of the richest cultivated valleys of California.

INDUSTRIAL ENTERPRISES.

A new industry is now being introduced at the head of the valley of Napa, which will give easy employment to all the boys and girls, and contingently it will support other new industries. It is but the beginning of many others. Three miles below Calistoga is selected as the site of a large factory for saving and canning fruits and vegetables that now go to waste, and encouraging the production of more. In no part of California can these beautiful elements of human food be cultivated more cheaply or more abundantly. Considering the depth of its rich soil, its prolonged season, and the extraordinary vegetable growth in this country, one acre may be considered equal to three wherever this industry is carried on in the Atlantic States. If irrigation be wanted, artesian waterflow may surely be found all along the valley, for it is backed by mountain ranges full of living waters.

MINES:

GOLD AND SILVER AND QUICKSILVER.

Calistoga is the center also of a great mountain range rich in mines of cinnabar and silver. Already its furnaces are producing mercury, and the product is increasing yearly. A number of valuable mines are now being profitably developed in the region around the base of Mt. St. Helena, at Pine Flat, on the Great Geyser road, and near Sillies' Mill, on the Clear Lake road. All of these are from ten to fifteen miles beyond Calis-

toga, to which point their products come, and from which their supplies are carried. The deposits of cinnabar occur in well defined veins, and as they are now being scientifically developed they bid fair to rival in productiveness the celebrated mines of New Almaden.

CALISTOGA REAL ESTATE CO.

The splendid property above described, containing 2,082 acres, divided into town lots, suburban lots, country seats, hotel property and farm tracts, has been bought by the above named company, and is now offered for sale to the public.

The Capital Stock of the Company is \$1,000,000,

Divided into 20,000 Shares of \$50 Each.

The sale of a certain number of shares has been authorized by the Board at the rate of

Twenty-five Cents on the Dollar, Making 12.50 Per Share.

By an arrangement between the former owner and the present company, no portion of this land or the proceeds of its sale, is consumed by expenses or in even the smallest degree diverted from the use and benefit of the stockholder.

Whoever buys Stock in the Company receives his pro rata share of this property, with its Crops and Rents in the meantime, without one cent of deduction for expenses of any kind, even including Taxes. And

this, too, no matter how valuable the property shall become.

Unlike the homestead schemes which have heretofore attracted our people, this plan gives homes and interests in and adjoining a town already built; where trade and growth are already assured, and where daily increase gives promise of greatly added values to all its property. It is a division of this ripened heritage that is now offered to the subscribers.

TRUSTEES:

E. W. BURR,
President Savings and Loan Society.

C. HARTSON,
President Bank of Napa.

J. B. FRISBIE,
President Vallejo Commercial Bank.

JULIUS WETZLAR,
Pres. Capital Savings Bank, Sacramento

COLONEL J. P. JACKSON,
San Francisco.

WILLIAM H. MARTIN,

GENERAL AGENT,

No. 1 Webb Street, cor. California, S. F.

PACIFIC RURAL PRESS

Volume IX.]

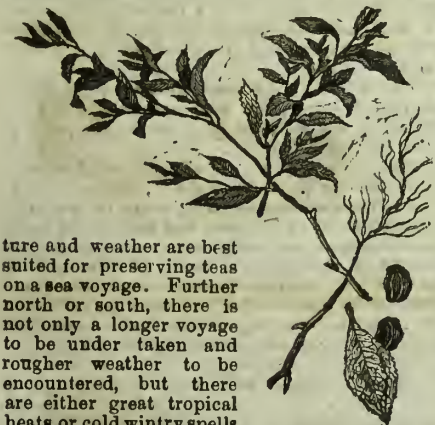
SAN FRANCISCO, SATURDAY, JUNE 12, 1875.

[Number 24.]

Tea.

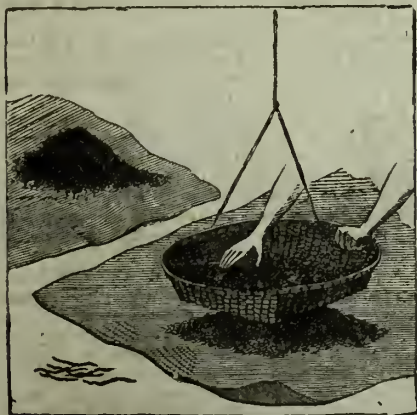
Cultivation and Preparation for Market, and Extent of the Trade.

From the fortunate geographical position of the city of San Francisco, it is destined to become the future tea market of America and Europe. For America, it must be the great distributing center, because of its position with regard to China, and to America, North and South. The sea voyage to it from China and Japan is the shortest and best that can be made from the east of Asia to the west of America, and the parallels of latitude between which it lies are those in which the tempera-



The Tea Plant.

ture and weather are best suited for preserving teas on a sea voyage. Further north or south, there is not only a longer voyage to be under taken and rougher weather to be encountered, but there are either great tropical heats or cold wintry spells with their inevitable concomitant of sea damps to be encountered. This alone will prevent any large cargoes of tea from ever being taken to ports further north or south as depots for supplies, and will also neutralize to a great extent the effect which the opening of the route across the isthmus of Panama by the cutting of the proposed canal might entail. Then the great railroad which unites this city with the empire city of the East, brings us at once into contact with every great commercial city in the United States, from the great lakes and the St. Lawrence to the Gulf of Mexico, and from the Atlantic to the Pacific oceans. And it is certain that sooner or later, that railroads will connect this city with every point on the continent of South America, and the voyage by sea to San Francisco, by rail to New York, and by sea again to, any part of the Old World, is far preferable in the important item of preservation of quality



Sifting.

and prevention of loss by shipwreck, to that by sea direct from China and Japan. By and by, doubtless, the tea trade of China with Europe, will be carried on over transcontinental railroads that shall straddle the Old World, but before this takes place a century must have elapsed; meanwhile the teas of Asia will reach Europe across the American continent. The tea trade of Europe and America is now over three hundred million pounds, worth one hundred and fifty million dollars per annum. San Francisco must become for China the depot and trade center of this vast commerce. In the not distant future, ere a quarter of a century has rolled over our heads, our tea business will be so vast that its docks, wharves and

warehouses will occupy one entire section of our city, and fleets constantly arriving and discharging will crowd our water front. Californians are therefore interested in information concerning tea, and we here present the first installment of an article, embodying a few general facts concerning tea culture and trade.

quite small. When first set out they are planted in circles, the center of which are filled with manure, and in places where they are liable to be damaged by frost they are covered. At the end of the third year they are transplanted to fresh ground. After the third year picking commences and, though the leaves are



PLANTING OUT IN THE THIRD YEAR.

The illustrations accompanying this article are copied literally from original paintings by a Japanese artist. They show the various stages of tea culture in that country as described by Prof. Clark in the *Christian Weekly*,

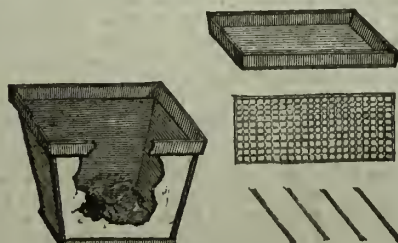
freshly picked each season, yet the plant thrives, and lives about as long as men usually do. It is never entirely stripped, but every spring those bright green leaves are taken which have just appeared on the top of the



PICKING THE LEAVES.

from the picking of the leaf under the shadow of the sacred mountain Fusi-Yama, through all its curing processes, till it is ready for use and sale. The methods employed are described by

bush. The other leaves, and even those of simply the last year, are never gathered, except, perhaps, to make the cheapest kind of tea for poor folks. The finest quality of tea, and

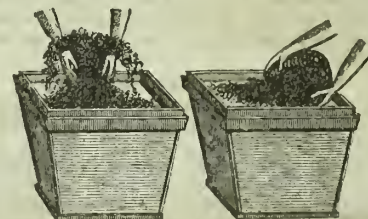


Oven and Pans.

Prof. Clark from personal observation. The tea fields are scattered throughout the country, ranged mostly along the hillsides, or, when found on more level ground, they are mingled among other forms of vegetation. The tea bushes are not more than breast high even at their full growth, and the young plants are

usually in May, and it continues at various intervals for two months, according as the new leaves make their appearance, the teas from the first being known as Garden or Bud teas. Our illustration shows women and girls employed in the work, which is light and pleasant.

When the baskets are full they are taken to a long, low house, where several men are silently at work and where they are prepared for market. The work of preparation differs in different localities. Our illustration represents the placing of the leaves in small quantities upon a series of stout pasteboard trays or pans, set upon brick ovens containing smoldering embers of charcoal and straw. These queer looking pans are ranged in rows, and are maintained at various temperatures, so that the hand can barely be put on the hottest. In front of each of these pans represented in our illustration, stands a man working the leaves between his hands and spreading them back



Working the Leaves.

and forth, to keep them equally heated.

It is here that the real work of the tea-making process is seen. These men stand from morning till night over these slow fires, rubbing and rolling the leaves between their hands continually. The leaves are placed on the hottest pans first, and when they are moist and green; but after being rolled some time and partially dried, they are allowed to cool on straw mats, and then they are placed on a second pan and rubbed and rolled again. This process is repeated twenty times or more, and it is far more laborious than might ever be supposed. Gradually the leaves become dryer and darker in color, and after the last rolling they are spread on moderately warm pans for awhile, and then placed in large baskets. On an average one man will roll and dry in a



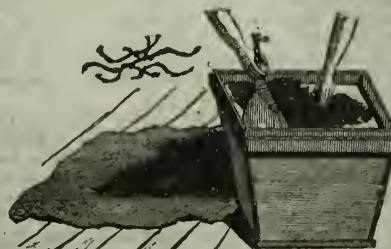
Cooling.

whole day as many leaves as would fill an ordinary tea-chest.

[Concluded next week.]

SAXE'S RECENT CATTLE PURCHASES.—Our Kentucky exchanges inform us that a member of the Saxe firm, the well known importers of thoroughbred stock, has been making purchases of choice stock to bring to California. The *Kentucky Live Stock Journal* gives a list of these recent purchases, and speaks of the Saxes as follows: "They purchase cattle and hogs, more particularly in Kentucky, though they have also shipped quite a large number of Cotswold sheep from the State. They are not breeders, but purchase to sell, and get only pedigreed cattle. Such enterprise must do a vast deal of good, in improving the cattle of the whole Pacific slope, as they sell their animals not only to California breeders, but ship to Oregon, Washington Territory and Mexico, besides Chile, Japan, Australia and the Sandwich islands."

WASHINGTON TERRITORY FAIR.—We learn from the *North-Western Farmer* that the annual exhibition of the Washington Territory Agricultural society will occur during the third week in October, commencing on Monday and closing on Saturday. Active preparations are being made, a committee composed of R. H. Hewitt, George A. Barnes and W. O. Bush has been appointed to report on the erection of buildings and other matters, and we shall expect to hear of a successful exhibition of the products of the Territory.



Heating on the Ovens.

that which costs here several dollars a pound, is made up entirely of those delicate little shoots found at the tip end of the stems, just as the tiny leaf is in process of forming. These minute shoots are always carefully picked at first, and the leaves just below them are gathered afterward. The time to begin picking is

CORRESPONDENCE.

A Trip to Yosemite.

MESSRS. EDITORS:—Here I am in the superlatively grand, totally lost for language to convey the remotest idea of it, and I feel like dropping my pen right here, but having a few moments before lunch I shall employ them in scribbling a little as well as I may be able. To attempt a description of these wonders is simply impossible. No one from any description ever written or artist's skill pictured, can realize in the least degree the overwhelming grandeur and magnitude of the surroundings. We talk about hundreds and thousands of feet high, and compare the little figures expressing height with some familiar or prominent point, but when you approach Yosemite, and the first sight bursts upon your vision, you instinctively shrink from the abyss so suddenly opening up below you—it looks as if it were ten miles deep. Horses appear like mice, human beings like dolls, trees from 200 to 300 feet high like little bushes ten feet high, and as you go rolling down the narrow grade it seems like flying through mid air as we look down and over the valley, and only the implicit confidence which has possessed us in our faithful steeds, and Professor Wilson, knight of the ribbons, who has thus far safely and pleasantly navigated our party, we should vehemently remonstrate against proceeding further. But on we go safely along, down, down, down. An acute point is turned, and in full splendor and beauty indescribable appear the falls of the Bridal Veil, 940 feet, and Ribbon, 3,300 feet, old El Capitan, 3,300 feet, "Cathedral Rocks" and spires, "The Sentinel," 3,270 feet, all with perpendicular faces looming up on the sides of the valley and between which we pass as we go on to our stopping place.

"The Hutchings Hotel"

(The new one I mean), where we were met by the old pioneer himself, J. M. Hutchings, whose head has grown white in working up and informing the world more than any other man of the wonders of the world renowned Yosemite valley, which but for his intelligent writings, lectures and representations would have remained a sealed book to the world till some one of equal intelligence and energy should have developed it.

He had been dispossessed of the old home he had built—by some *hocus pocus*—and after offering to give as much rental as any other man for the place, the commissioners saw fit to give it to some one else who had never expended one cent in improving the valley, or given to the world a single intellectual thought or idea respecting these sublimity glories. But to him we went, and although just preparing to receive his friends we were comfortably provided for with rooms, and on Sunday we partook of as fine a dinner as any one could desire. The wonder is how he could provide himself with all the delicacies we partook of at his table. But he has them and dispenses them with right good cheer, and I would right here recommend all who visit the valley and wish all the creature comforts to call on the old pioneer.

Our party consists of Captain H. C. Pitman and wife, Captain T. H. King and wife, of San Francisco, J. H. Bruen and wife, of Rockaway, New Jersey, your humble servant and wife (who, by the way, is the loveliest woman of them all), and on the whole a delightful party. Our invalids, two, one troubled with gout in the knee joint and ankle, the other with indigestion in the spinal column, have now, after three days' sojourn here, completely recovered; one can trot up Jacob's ladder in a 2:40 gait and the other can digest the political code bound in calf in just four minutes by the watch.

We went up to Snow's to stay all night and found a big crowd there. Mine host Snow (everybody knows Snow) is a host, and didn't he take care of us? although we came down on him like the plagues of Kansas and Nebraska, overrunning him and entering every nook in his hospitable "caravanserie." And the hostess beats the host, for she provided us (there were about sixty there to stay all night) with all the luxuries of the season—strawberries, etc.—with a prodigality that betokens her big-hearted generosity. Oh, how we did enjoy our stay at Snow's.

And here let it be recorded, and history forever repeat this fact, that on Tuesday, the 25th day of May, A. D. 1875, was christened and named a

"Granger Peak"

Amid great eclat and festive pomp. The "Granger Peak" will hereafter be known by tourists, as it is located under Mount Starr King's north wing, rearing its ambitious head to within a few hundred feet of Starr King's height. All hail to Granger Peak. That's glory enough for one day, and to-morrow morning we tear ourselves away from these gay and festive scenes to enter the arena of drudgery and business on the shores of the sunset sea. A word more I must say, visit Yosemite everybody, if it's the last thing you do on earth; visit Yosemite if it takes the last cent you have, and you have

to mortgage your neighbor's farm; go to Yosemite; I beseech every Californian to visit Yosemite. You'll live a thousand years longer and be a thousand fold better.

Fraternally, W. H. BAXTER.
May 26th, 1875.

Deep Plowing and Irrigation.

EDITORS PRESS:—In a recent number of your paper some one calls for a discussion of the merits of deep or shallow plowing, or as I understand it, whether it is better to be a farmer or a barley scratcher. This is a good year for such a discussion, as the tests of deep and shallow plowing are to be seen everywhere; the crop of the former ranges from fair to average, and the latter from bad to nothing. Among the majority there seems to be an irresistible disposition to avoid honest work, and to cheat the ground out of a crop, without a fair equivalent in the shape of cultivation. In other countries farmers take pride in doing their work thoroughly and well, but in California the contrary is the rule, and the thorough farmer the exception. Really good farmers are just as scarce in this section as in other parts of the State, but in riding about our valley, the condition of every crop tells the story, every crop where the land has been decently plowed is good, and directly alongside where the land has been scratched the crop is so poor as to be hardly worth harvesting. Where such facts as these can be presented, discussion of the reasons and philosophy of the thing seems hardly necessary. I for one have discussed the subject fully in previous numbers of the Press.

Irrigation.

I am pleased to see that the people of the State are waking up to the absolute necessity of a general system of irrigation. We in district No. 1, under the law passed last session for Los Angeles county, have inaugurated the movement, and find that the law works admirably; the law is not perfect, but it answers the purpose; it was considerably tinkered by the legislature during its passage, but with a few amendments its operation will be perfect. The object of an irrigation law should be to compel the owners of land in an irrigation district to unite in what may be styled an involuntary joint stock company. The object is to get the water on the land; and each acre of land that is to be benefited should pay its equal proportion of expense. This plan works well in the reclamation of tule lands, and it is the only proper way to raise money for the construction of irrigation ditches; the owner or legal representative of land is the only legal voter, and the voting power should be in proportion to the number of acres of land represented, otherwise it would be taxation without representation.

This latter clause keeps politics and bummer voting out of the irrigating question. We have now to pay taxes enough, that are carried by the votes of those who never pay taxes; the irrigation question is the most important of any in the State and should be kept entirely in the control of those who are pecuniarily interested in it.

Forty acres of irrigated land is the full equivalent of 200 to 300 acres not irrigated. I think, therefore, it is better for each man to sell a part or mortgage his land to pay his tax, than to have bonds issued for the construction of the ditch or irrigation works. Ditches built for coin cost far less than those built by the sale of bonds; in the latter case there are plenty of chances for swindling, which do not exist in the cash plan. Let it be known that an irrigation canal is about to be built on the west side of the San Joaquin, for instance; land there which after repeated failures is comparatively worthless, will at once acquire a selling value, and a sale of a portion of each man's land will enable the seller to pay his proportion of the tax for construction. This is better than a mortgage, but individual mortgages are far better than bonds; if the latter are employed the works will have cost, by the time the bonds are paid, fully three times what they could have been built for for cash. The law should also provide that the tax should be called for in installments as the work progresses, as is customary in joint stock companies. After the works are finished, the water should be sold to those who want it in the order of application, charging therefor just a sufficient amount to pay current expenses and ordinary repairs, thus the expenses will fall on those who use the water, and just in proportion to the amount they use; this is fair to all.

I am most decidedly in favor of the district system. This will accomplish all that is needed and does not cause the creation of a lot of useless officials, that a government system would require. The country west of the San Joaquin and the Sacramento should be in single districts. On the east side of the same valleys, the irrigable land on each side of each stream should form a separate district, the waters of each stream being divided between the opposite districts in proportion to the number of acres included in each district. In this way each community would manage its own affairs without unnecessary government interference. The farmers are able to manage their own business among themselves. WM. K. ALDEN.
Anaheim, May 28th, 1875.

Questions and Suggestions.

MESSRS. EDITORS:—As you, or some, or all of your readers together, seem to know about all that is known concerning farming, horticulture, etc., I want to ask you a few questions, the answers to which may be of great interest to your readers:

1st. Has anyone found out any way by which we can prevent the yellow jackets from destroying our grapes again this year as they did last? Out of five or six hundred pounds we did not get ten pounds fully ripe; the jackets took them as fast as they began to ripen and that was the general complaint through this valley. Some say, find their nests and burn them, but where shall we look for them? I have never been able to find one yet.

2d. One man says he poisons gophers. What does he poison with and how used? Squirrels, ditto.

3d. Are ashes a good fertilizer for trees, vines, etc., on soil that has, as we think, too much alkali? Are they good on a light sandy soil with gravelly subsoil that has no alkali?

I will add a few words about San Diego, which you may do as you please about publishing; in fact, I expect you to do that about the whole of this.

Our local papers tell you that the frost in April last did no. do any damage in this county. If you had been here I could have shown you grape vines that had grown from six inches to one foot in length, and some of them had two bunches of buds on them, that were frozen the entire length. Also, apricots as large as marbles, the upper half frozen; some of them stayed on the trees until as large as walnuts, and one side all withered. Potato vines, one foot high, froze to the ground so that they never recovered. I think that it done me some damage, and I guess there are others in the same fix. I sometimes wish my ranch lay right alongside of your local's office, as it always rains and never freezes there. California locals won't do to trust when writing about home interests. I used to think those in the northern part of the State the biggest liars in the world; but don't think so now.

I see that most every part of the State are putting in their bids for their share of the incoming immigration. Well, we would like to welcome some of them down this way, that is a certain class, those that have plenty of money and are seeking a pleasant place to live in, and don't care to make money. I do think that there is no place in the world where one can live and make them a delightful home any sooner than right here in San Diego. The climate can't be beat from January 1st to December 31st. Please don't ask me any more questions. Truly Yours, S. WHITMORE.

Chollas Valley, San Diego Co., May 21, '75.

P. S.—In reading over my letter I see that I omitted to make a suggestion or two that I had in my mind in regard to those yellow jackets. How would it do to try a little poison on them, say fly poison, or some other kind that would do the work? Think there would be danger of their getting into the poison and then on the grapes and poison them? If so, then set the dish on the outside, say in the brush where the nests are liable to be. The dish containing the poison could be so fixed that the birds could not get at it. I make these suggestions that others interested may try experiments too, as I saw by the Press last fall that we were not the only ones troubled. S. W.

[ANSWER.—1st. We have heard a good many complaints against the yellow jackets, and, in fact, have ourselves had slight cause for complaint; but we do not think it practicable to fight them. If you attempt to poison them you will have to provide something even more inviting than the grapes; and by holding out such inducement you will greatly increase the number of visiting yellow jackets. This is one of the keenest scented of insects, and any sweet compounds that you might prepare for their destruction would advertise your establishment and secure a run of custom exceeding your supply.

Fruit growers are very wisely introducing a sort of fifteenth amendment in their rules of management; allowing certain well identified classes of insects the right to visit their vineyards and orchards; placing them on a scale of social equality which gives them the rights and privileges of birds; and if "S. W." will invest the money and labor requisite in carrying on a war against the yellow jackets in planting a few more vines, allowing them a sort of partnership in the concern, it would undoubtedly redound to his advantage.

Our correspondent will, possibly, say this is a very nice thing to write, but it won't work; we assure him, however, that very practical people, who make no pretensions to humanitarian principles, have adopted this plan with regard to birds, and they are also beginning to think that possibly the birds are not the only visitors that really do more good than harm in their seeming depredations.

To the question about wood ashes being beneficial to land possessing an excess of alkali, we say, emphatically, no. If you have on your place any land of the opposite character to that described in the letter, that is, if it is clayey, stiff and heavy, you can use a large amount of ashes upon it to advantage, both immediate and permanent; even coal ashes may be turned to good account there.—Edu. Press.]

From Santa Clara Valley.

[From our Regular Correspondent.]

MESSRS. EDITORS:—W. W. Montague's place, on the road between Santa Clara and Alviso, is one of the most valuable as well as beautiful ranches in the valley. Driving down the long straight avenue between rows of beautiful trees, as we near the house, it seems approaching a very paradise of a place. It is at this season of the year a picture of so much loveliness, that we must pause and look awhile, before driving round the farm.

The house is not large or pretentious, but is so completely embowered in trees and vines on every side, so artistically arranged and neatly kept, as to give it an air of elegance and taste. The grounds around the house are beautifully laid out with smooth, well graded serpentine drives and walks, through lawns and plots of soft velvety grass, shaded by fine large trees, whose long, luxurious, pendant branches reach nearly to the ground and wave gracefully in the cool breeze from off the bay. Then, there is such a lavish profusion of roses and honeysuckles, geraniums and jessamines, lilies and daisies, and hosts of other flowers, in clumps, festoons and bowers, in every direction—with little cozy dells and shady bowers, and rustic seats, as ever invited a tired mortal to quiet rest.

Just before the door, in the center of a little gem of a circular lawn, bounded and shaded with large trees, and ornamented with choicest flowers, a fountain was playing—throwing jets of water high up among the branches of the trees, sparkling in the light and falling with a soft musical tinkle in the basin below.

An artificial lake—riveling Nature's own, in its smooth grassy banks and graceful zigzag courses of shore—bounds the driveway on the left as we approach the house—then farther on, after we cross it in a narrow place, upon a wide and substantial bridge, it stretches farther away among the trees, until it is lost to our view.

The stables, tool houses, work shops, poultry and stock yards, are well arranged for convenience and comfort, and are neatly painted and white-washed.

The farm consists of 400 acres of choice land, mostly in wheat for hay, looking well. There is an orchard of thirty acres of assorted fruits—the trees trimmed well back, enjoying a good season's rest and growth, as there is but little fruit on them this year. In the way of small fruits, there are twenty acres in strawberries, ten in blackberries, and three in currants. Mr. M. is growing about twelve acres in Florida tobacco—the plants looking well.

The place is abundantly supplied with water from eight artesian wells, some of them flowing very strong. The beautiful artificial lakes are supplied with fresh water from these wells—from thence passing off to the Gaudaloupe.

San Jose, June 2d, 1875.

G. W. M.

Will Alfalfa Pay?

EDITORS PRESS:—Much has been said and written in reference to the wonderful growth of alfalfa, but as we have seen but little on the subject of its actual cash value as a crop, we propose to give a few items in regard to its cost and the profits of the crop. Our first experience was during last year. Arcadia ranch then had seven acres of alfalfa. We then sowed sixty-three acres. From the seven acres of old alfalfa we sold \$400 worth of hay and saved, after paying toll, 1,204 pounds of seed, though only five of the seven were allowed to seed; After the seed crop was cut, we had a small crop which was grazed by sheep. Then seed was worth here fourteen cents per pound, thus realizing \$163.56 for seed and \$400 from hay making \$563.56. The entire expense of this crop was a little less than \$100.

I have just put away nearly one hundred tons of well-cured hay at a cost of \$1.43½ per ton. This includes the cost of cutting, hire of mower, raking and hauling, all of which was paid for at the highest prices for such labor. We sold our last year's crop at ten dollars per ton in the stack and the price will not be less this year.

Many persons writing about the marvelous yield of alfalfa have drawn largely upon their imaginations. The yield is large enough if we tell the truth and hence does not need any exaggeration. From our experience we believe forty dollars per acre can be realized, above the cost of the crop, on every acre well set in alfalfa, where the land is adapted to its growth and water is plentiful.

We believe we can cut on one hundred acres on this ranch at least five hundred tons of good hay this year, and one thousand dollars will pay the entire expenses. This will pay forty per cent. per annum on land at one hundred dollars per acre.

One item in regard to the grazing capacity of alfalfa. During last fall we kept 1,500 sheep on twenty-five acres for twenty-two days and as fast as it was eaten off we turned on the water. By the time they had reached the lower end of the field the young alfalfa was from eight to ten inches high where they began grazing.

As a forage plant we think it excels any grown in this State.

JOHN SHIRLEY WARD.

Arcadia ranch, near San Bernardino, Cal.

POULTRY YARD.

Poultry at the International Exhibition.

The admirers of fine poultry will no doubt have an opportunity during the International Exhibition to gratify their taste fully, as it is the design of the Centennial Commission to provide everything requisite to the proper reception and display of fowls and birds of every class.

It is desired by many that there be a permanent as well as a temporary exhibition of poultry, and if applications for space for the exhibition of fowls during the six months covered by the exhibition, are received in sufficient numbers to warrant the outlay, the Commission will probably adopt measures to afford the proper facilities.

If the design of a permanent exhibition be carried out, the display should be such as would impress the character of each breed upon the mind of the observer.

This cannot be done when the exhibition is confined to tris in separate coops, but only by the display of as large a number as can be placed in one enclosure; thus affording by the multiplication of individual birds, each of the same breed, an opportunity of studying the characteristics of each particular family. Prominent poultry breeders could readily supply the birds for such an interesting and instructive exhibit.

The temporary exhibition will commence on October 25th, 1876, and last till November 10th, a period of fifteen days. The Commission will erect shedding, and the birds will be exhibited in the same boxes or coops in which they were transported. For the purpose of preserving uniformity these boxes will all be made according to specifications furnished by the Bureau of Agriculture.

Exhibitors will be required to assume all responsibility of feeding, and general attendance on their birds.

Only such specimens will be received as are of pure breed, and even these must be highly meritorious.

Further information may be had by addressing the Chief of the Bureau of Agriculture, International Exhibition, Philadelphia.

SHEEP AND WOOL.

Sheep Raising.

[By COL. E. S. STOWEL.—Continued.]
Merino Sheep in Saxony.

"To nothing," says Mr. Hays, Secretary of the National Woolen Manufacturers' Association of the United States, in an address before a convention of woolen manufacturers and wool growers, "is France so much indebted for the beauty and brilliancy of her woolen fabrics as to the perfection of her wool fiber, secured by her skilled breeders of merino, under the protection of a discriminating government, believing in a mutuality of interest between wool growers and woolen manufacturers." I am not here for the purpose of promoting the interests of French sheep in this country, *me ne tene* *tekel*, *upharin* has been written on the wall over against them in time past. I believe them to have excellencies, however, and a modification of their characteristics by experience and skill, or perhaps a change in the American system of keeping, may serve to erase the verdict now against them.

What France lost by delay, Germany gained. In 1764 the elector of Saxony obtained by special negotiation a grant for two hundred merinos to be taken out of Spain. They were accompanied by Spanish shepherds to instruct the Saxons in their care and management. A commission was appointed to superintend and direct the concerns of the sheep establishment, to spread all the information they could obtain before the public, and by every means in their power to induce the sheep owners of the country to improve their flocks, even to compelling the tenants of the government domain to purchase yearly a few fine bred merinos. At first there was much prejudice, and improvement was slow; but "when the commissioners had exercised their functions ten years the call for young rams was so great that they resolved to petition the government to make another importation of ewes and rams from Spain."

Morrell says, "the invaluable properties of pure Saxon wool, and the consequent demand for its manufacture into fabrics, the fineness of which the world has never before produced, is the cause of the high value of Saxon sheep, and their spread over so large a portion of Europe and remote parts of the world. No other breeds are so highly prized on the Continent, and none which command such enormous figures."

"Individual rams of uncontaminated blood often bring from \$140 to \$250; a flock was purchased, destined for Russia, a few years since, for which the average price paid exceeded \$500; and latterly rams have been sold at the almost incredible price of 100 to near 300 guineas per head. The cause of these extravagant prices has been stated; and so long as there exist grades in society, and the highest of these covet a wardrobe of the finest texture, the breed will continue to be appreciated, and sedulously cultivated."

It would expand this paper too much for me to detail the introduction of Spanish merinos into other parts of Germany, Prussia, Austria, etc. Suffice it to say, that many districts rival Saxony; Prussia especially fosters her flocks, not only by premiums, bestowed through her agricultural societies, but by that enlightened protection to domestic industry which so truly characterizes that government, even to the prohibition of manufactured goods, imported, and the export of their raw unmanufactured wools, and probably in no one thing, not even in arms, has Prussia advanced more during the last twenty years than in her wool and woolen interests, under the workings of her prohibitory tariff.

But the high positions of the woolen industry of these countries has not been reached without mistakes, trials and struggles. Fleischmann divides the history of merinos in Prussian Silesia into five periods. From 1785 to 1805 was the introductory period, "when the wool growers were ignorant in the knowledge of wool, and management of merinos." From 1805 to 1815 was the period, "when the difference between merino and common wool began to be understood, and the wool growers traveled for information and brought merinos from Saxony." From 1815 to 1825 was the third stage. "The great desire was extreme fineness; they overlooked many other valuable qualities, as size, shape and constitution of the animals."

"With the highest degree of fineness great softness was required. The Saxon breed, Electoral, combined these qualities. Such sheep were employed in crossing; consequently the finest Silesian consisted of thin fleeced, delicate animals, which, besides a deficiency in wool, were liable to all sorts of diseases. The period from 1825 to 1830 may be called the test for German wool growers, and particularly the test for the Silesian. In that period the price of wool sunk so low, and it appeared as if England had taken leave forever of the German wool market, that many were affrighted and began to diminish their flocks, and change their whole system of farming. It produced a crisis, and their attention was principally directed to an increase of wool in the fleece, to compensate for the loss in the prices. This crisis operated very beneficially upon the whole system of breeding merinos; the wool growers, instead of aiming at the highest degree of fineness, had now a greater quantity of wool in view."

Finally came the fifth stage, "which has for its object to produce not only the finest and softest of wool, but in great quantity." And for aught I know the Prussians have themselves added in the sixth stage, what their sheep when last heard from lacked, to be practically good sheep for the American market (when our upper classes sustain their manufacturers in wanting their fine wool) to wit: form, and oil that will stand a moderate degree of exposure without vanishing like the early dew.

(To be Continued.)

Eastern Wool Markets.

NEW YORK, June 5th.—The wool market has shown less activity this week owing to the combined influence of a dull goods market and the re-occurrence of a legal holiday. The future of this market is hard to foretell, but from present appearances nothing encouraging can be deduced. Several new classes are now arriving freely, and to follow will be choice and other Western fleeces, which will be due inside of a month. Liberal receipts of spring California have had a depressing effect upon the market, and in many cases a much lower price has been accepted than what holders were wont to anticipate. Texas is being received in good condition and quite liberally, but holders of choicest lots are considerably above purchasers in their views. Foreign clothing Wool has been rather quiet, but prices have remained quite steady. Foreign carpet material has met with an active inquiry, and prices have advanced, owing to a scarcity, 3 to 5 cents per pound. Sales for the week are 70 bales of Cape, at 35¢@35½¢; 200 bales Sydney, at about 48¢; 25 do East India, at 22¢@22½¢; and 1,000 do Donskol and 19 do Curacao, private; 188,000 lbs. spring California, at 28¢@35¢, the latter price for very choice; 1,000 lbs. free fall do, at 18¢@21¢; 7,500 lbs. low burry do at 16¢; 6,000 lbs. X and XX Ohio fleece, at 54¢@55¢; 1,300 lbs. old Wisconsin do, at 51¢; 5,000 lbs. fine Western unwashed do, at 36½¢; 8,000 lbs. medium do, at 39¢; and 10,000 lbs. XX Ohio do, and 29,000 lbs. Kentucky do, private; 10,000 lbs. new Missouri do at 35¢@37¢; 10,000 lbs. old Nevada do at 28¢; 18,000 lbs. Georgia, at 38½¢@40¢; 40,000 lbs. Western Texas, at 22½¢@30¢; 166,000 lbs. Eastern do, at 23¢@25¢; 65,000 lbs. scoured California, at 62¢@72¢; 20 bales do black, at 70¢; 178 bags super pulled, at 45¢@50¢; 93 do XX, at 44¢@45¢; and 50 do No. 1 and No. 2 do, on private terms.

Boston, June 5.—The Wool market is unchanged. Manufacturers buy only in lots as wanted, but with small stocks are obliged to purchase frequently, and sales foot up a fair average. Holders are still disposed to meet the market freely at current prices, and are anxious to keep supplies sold up as close as possible. There has been rather more inquiry for fine fleeces, and 154,000 pounds of Ohio and Pennsylvania, principally choice XX, have been sold at 52½¢@53¢. The stock of desirable fleece Wool is now considerably reduced. The

principal transactions of the week have been in California, sales of new spring amounting to 790,000 pounds. Prices have ruled in favor of buyers, but on the whole have been satisfactory. The range has been from 22 to 40¢, a small lot of 3,000 pounds fancy spring selling at 40¢; but the bulk of sales have been at between 31 and 36¢ for good and choice lots. Receipts of California have been considerable, and the stock of this description is now quite large. Some lots of new Ohio fleece have been received, and other supplies are near at hand. Dealers and manufacturers appear to be quite indifferent to the new clip, and will hesitate to purchase to any extent except at lower figures than growers are now willing to submit to. Arrivals of new Kentucky combing have been considerable, but buyers appear to pay the prices asked with reluctance. Good lines of combing are generally held at 50¢, and for selections that price has been offered; but a fair range of prices is from 48 to 50¢. The only sale of new Kentucky the past week was 10,000 pounds at 49½¢. There is still a fair demand for pulled wool, sales of the week comprising 190,000 pounds, at prices indicating no material change. Some choice lots of super have been sold as high as 55¢@56¢, but still the bulk of sales have been in the range of 45¢@50¢. There have been sales of combing fleeces at 58¢; unwashed combing at 45¢@49½¢; scoured, 55¢@80¢; super and X pulled, 30¢@57¢.—Call.

Monthly Report of the Bureau of Immigration.

For the information of our readers we copy the following, addressed to the Executive Committee of the citizens of San Francisco, June 1st: "We have at present on our books 414,423 acres of land for sale, located in the following counties: Santa Cruz, Sonoma, Inyo, San Luis Obispo, Santa Barbara, Santa Clara and Contra Costa, and 194,018 acres which are we authorized to offer for rent in the counties of Santa Cruz, Contra Costa, Kern, San Luis Obispo and Santa Barbara."

Feeling the great necessity of a systematized co-operation throughout the farming districts with this Bureau, as also reliable information from personal inspection of the lands, resources and wants of the several localities, Mr. I. G. Gardner, the Assistant Manager, started out on the 14th of the month, on a tour of organization and investigation. His endeavor was to engage the attention of the business men, in the furtherance of the object of the Bureau, and generally awaken public interest in behalf of the same, and we think it would be well to have him continue and visit all parts of the State.

From irrigation in Kern county Mr. Gardner reports the most satisfactory results, and that many hundreds of immigrants can there find homes and work.

There are also portions of Tulare and Fresno counties which are being irrigated, and in all such districts he finds available places for the new comers.

The class of immigrants now arriving to whom the Bureau has rendered assistance are remarkable for their intelligence, education and practical ability; while the professions, the mechanic arts and the various trades and occupations of life have all been well represented, the farmer has largely exceeded all others in numbers.

We have received a great number of inquiries, by letter, on the part of families preparing to immigrate and form colonies. During the month the Bureau has answered 260 letters of inquiry.

Where personal application has been made, all available information has been given, and the parties have been furnished with letters of introduction to parties in the sections which they desired to visit. To this end the Grange organization has proved of vast service.

But frequently, from the great number of applications by letter and in person, and the wide scope of questions propounded, the want of reliable data at hand, as well as time, has prevented as full a reply as could have been wished. In all cases, however, such questions as could be were satisfactorily answered, and such printed matter as we had at hand, or was obtainable by the Bureau, was furnished the parties. The printed matter thus distributed was as follows: 951 copies of *Resources of California*, 178 copies of the *Grangers' Guide*, and fifty copies of the *Railroad Gazetteer*. In addition to various newspapers there have been distributed 13,789 circulars explanatory of the formation and purposes of the Bureau, 1,500 circulars inviting co-operation of prominent parties and officials in each county. These circulars were sent out immediately upon the opening of the office, to the Judges and Clerks of the various counties, to prominent and reliable parties throughout the State, to every newspaper, and to all organized Granges in the State. A large number were distributed throughout the city, in the various hotels, restaurants and lodging houses; and several thousand sent out to Ogden, which are distributed to the immigrants after taking the cars of the Central Pacific road.

Number of unmarried men applying for situations has been 269; number of unmarried females, 35; number of married persons, 60 couples, equal to 120; total number of persons applying, 424.

With very few exceptions all have been placed in situations.

The number of personal inquiries for land has averaged about twenty per day.

The total receipts have been \$1,066; expenses, rent, salary of officers and extra expense incurred in distributing circulars, \$577.90; office furniture, stationery and postage stamps, \$172.61; printed matter and advertising, \$156.75; traveling expenses, \$80; total \$987.26; balance on hand, \$78.74.

J. EARL, Manager.

USEFUL INFORMATION.

Filing Saws.

The grand secret of putting any saw in the best possible cutting order, consists in filing the teeth at a given angle to cut rapidly and of a uniform length, so that the points will all touch a straight edged rule, without showing a variation of a hundredth part of an inch. Besides this, there should be just enough set in the teeth to cut a kerf as narrow as it can be made, and at the same time allow the blade to work freely without pinching. On the contrary, the kerf must not be so wide as to permit the blade to rattle when in motion. The very points of the teeth do the cutting. If one tooth is a twentieth of an inch longer than two or three on each side of it, the long tooth will be required to do so much more cutting than it should, that the sawing cannot be done well. Hence the saw goes jumping along, working hard and cutting slowly. If one tooth is longer than those on either side of it, the short ones do not cut, although the points may be sharp. When putting a cross-cut saw in order, it will pay well to dress the points with an old file, and afterwards sharpen them with a fine whetstone. Much mechanical skill is requisite to put a saw in prime order. One careless thrust with a file will shorten the point of a tooth so much that it will be utterly useless, so far as cutting is concerned. The teeth should be set with much care, and the filing should be done with great accuracy. If the teeth are uneven at the points, a large flat file should be secured to a block of wood in such a manner that the very points only may be jointed, so that the cutting edge of the same may be in a complete line or circle. Every tooth should cut a little as the saw is worked. The teeth of a handsaw for all sorts of work, should be filed fleaming, or at an angle on the front edge, while the back edges may be filed fleaming or square across the blade.—Ec.

THE STRENGTH OF WOOD AND THE EFFICIENCY OF THE AXE.—In a recent volume of the annals of the Forest Academy, at Mariabrun, near Vienna, Prof. W. F. Exner gives a novel and highly instructive analysis of the elasticity and strength of wood, its resistance to splitting, and the use of the wedge, the axe, etc. The importance of these matters he shows to be very great, because great industries depend upon the applicability of certain kinds of wood. Having deduced a few simple formulae to express the strength of woods and the power of the wedge, he develops a formula for the force with which an axe is handled, and shows what curve should be given to the face or cheek of the axe, in order to secure, under certain conditions, the least waste of power. By these formulae he is able to demonstrate that the splitting efficiencies of the best axes made in Vienna, Prague and America, are to each other as 13.3 and 9.2, and 4.9, respectively; and applying his formulae to the elaborate experiments of Nordlingen, he is able to deduce the absolute ease with which various woods can be split.

TO PREVENT SPLITTING OF HANDLES.—All carpenters know how soon the butt end of chisels split, when daily exposed to the blow of a mallet or hammer, and we are indebted to one of our subscribers, Mr. W. Esmark, a stair builder, in Brooklyn, N. Y., for a remedy to prevent this, which he kindly requested us to publish. It consists simply in sawing or cutting off the round end of the handle, so as to make it flat and to attach by a few small nails on the top of it, two round disks of sole leather, so that the end becomes similar to the heel of a boot. The two thicknesses of leather will prevent all further splitting, and if in the course of time they expand and overlap the wood of the handle, they are simply trimmed off all around.

TEMPERING STEEL.—In hardening and tempering steel, a clean charcoal, anthracite, or coked bituminous coal fire is required; such as is fit for taking a welding heat on iron is entirely unfit for hardening purposes. The sulphur contained in the coal combines with the steel to form sulphuret of iron, and ruins its texture.

In hardening and tempering cast steel, the following is the golden rule:

"Hammer to a polish,
Harden at a blood red,
Temper to a straw color."

TO WORK HARD STEEL.—If steel is rather hard under the hammer when heated to the proper cherry-red, it may be covered with salt and hammered to about the shape desired. More softness can then be obtained, if required to give a further finish to the shape, by sprinkling it with a mixture of salt, blue vitriol, sal ammoniac, saltpeter and alum, made cherry-red again, sprinkled with this mixture and hammered into shape. This process may be repeated until entirely finished. When ready the steel is hardened in a solution of the same mixture. This method is recommended by Mr. W. R. Lake.

PATRON OF HUSBANDRY.

THE HEADQUARTERS of the California State Grange are at No. 6 Liederdorf street, in rear of the Grangers' Bank of California, No. 415 California street San Francisco.

The Rural Press and the Grangers in Montana Territory.

EDITORS PRESS:—I would not be without the Press on any account—the best Granger and farmer paper now published that I know of—and I never will be without it if favored as I have been in the past. We, the farmers of Montana, have organized ourselves in the farmers (Grangers) movement. H. H. MOORE.
Bozeman, M. T., December 27, 1874.

Secretaries will be supplied with a printed list of subscribers for this paper upon sending a list of their offices within the range of their Grange. Also with blank reports, etc., for clubs.

Grange Directory.—A full list of officers of the State Grange, Deputies, names of Councils, Subordinate Granges, Masters and Secretaries will appear in this department on the last Saturday of this month.

Our Friends Outside the "Gate."

It is not a little amusing, at times, to read the disinterested (?) advice given to Grangers and opinions expressed by friends outside the "gate," and the warnings uttered against "the imprudence of attempting too many things at once" or of "undertaking enterprises beyond the legitimate scope of their organization." "The farmers," says one, "are simply qualified to run the Grange organization with reference to agricultural interests; but when they undertake to go into mercantile business, to run factories, railroads, etc., they are touching upon dangerous ground." "Rash expansion in all directions is calculated to make enemies for the organization," etc. One attempts to prove from the elections which resulted in the political "tidal wave" of 1874 that the Grangers were quite given over to politics; while another journal soon after gravely assures its readers that "As a political party the Grangers have disappeared, and it is supposed by many astute philosophers that the organization has failed to meet its purposes, and is quietly undergoing the reactionary process of decay and dissolution." (1) Soon afterwards we are told, "It now appears, however, that the Grangers are a strictly business organization, financial and commercial, and that within the last two years their achievements in behalf of the agricultural interests of the country have been so great as to mark the beginning of a great revolution in the commercial exchanges between the West and the East, and in the Grangers' insurances."

"The doings of these Grangers are exceedingly important and suggestive. They reveal the secrets of many perturbations in our financial and commercial affairs, which cannot otherwise be accounted for. They cut the ground from under the feet of middlemen and speculators and 'corners' in grain and other products. They show in these Granges a degree of strength in numbers and solid capital competent to control any great through railway line against a combination of all the others between the West and the East, or between the South and the North. They indicate a power in behalf of the producer competent to regulate the grain and the cotton markets against any alliance of outside speculators, and they already mark a serious diversion of cash profits from the middlemen of our seaboard cities to the farmers and planters of the interior. We see from these statistics, in short, the inauguration of a positive revolution and of a new system in our commercial exchanges and financial affairs, the possible extension and ramifications of which cannot be estimated."

Again, "can these Grangers, with their enormous balance of power, say a million of votes, be depended upon to maintain their individual independence as Democrats or Republicans? No." "These Grangers will vote with the party pledged to their interests; and so holding the game in their hands, they may still wield the power for themselves in our coming presidential election."

Truly, "these Grangers" are a terrible enigma to most outsiders and a veritable lion in the way of troudest politicians, over-reaching monopolists and unscrupulous corruptionists. But, so far as our observation goes, we have never heard any complaint uttered or fear expressed by upright, well meaning citizens, with regard to any probable outcome from the Grange organization. True, they are emphatically "set for the defense of the farming class;" but they also entertain the warmest sympathy with all industrial classes—all who toil and labor by whatever honest means or in whatever honest way, to add to the wealth and prosperity of the country.

They have no pet schemes to foster, which are not "for the greatest good of the greatest number." They entertain no religious sectarianism; only the principles of charity, truth, morality, temperance and love to one another, and all mankind are inculcated within the Grange.

The vast power which the great and increasing numerical membership gives them will never—never can—be used for their own preferment or that of any particular political party. While no one on becoming a Patron of Husbandry gives up that solemn right and duty which belongs to every American citizen to take a

proper interest in the politics of the State and nation; yet the principles which we teach and observe underlie all true politics, all true statesmanship, and when properly carried out, as we presume they will be, will tend to purify the whole political atmosphere.

Honest men and true statesmen will have nothing to fear or combat in the influence of the Grange. It is only political demagogues and men who live by bribery, corruption and trickery, that will find themselves in antagonism with the principles of the Grange. The true Patron will be found doing his duty in any or all parties, striving to put down corruption wherever he may find it, and using his best efforts—irrespective of party—to see that none but competent, faithful and honest men are either nominated for or elected to office. We hold to the broad principle in both religion and politics, that there is no crime or wrong in honest difference of opinion, in fact that the best "progress toward truth is made by difference of opinion," while error and fault is mainly engendered by "bitterness of controversy."

The tendency to become, like almost everything else in this country, a mere tool in the hands of trading politicians, a new form of political machinery, is one of the things which, above all others, is most carefully guarded against in our organic laws, and one against which the great majority of the Order is most firmly fixed, as the only rock on which it can possibly be wrecked.

Grangers' Business Association.

The assessment on the stock of this incorporation, published for the past month in the RURAL, represents the first payment to be made before stock is issued to the shareholder. It was advertised by the Secretary in accordance with the usual custom, and the form designated in the assessment law. The subscription to the stock by the subscribers is sufficient legal cause for the collection, we believe, aside from the advertisement. It is not, as some have supposed, the intention of requiring a second payment on the stock now, or at any early day. But any who may not have paid their first subscription of \$2.50 per share, should lose as little time as possible in sending it in. We have been requested by the Secretary to make this explanation, that all may be fully informed.

In Memoriam.

WHEREAS, Within a single week, two worthy members of Santa Clara Grange, SISTER CYNTHIA WOODHAMS and BRO. A. E. RUTLEDGE, have been removed by death, therefore,

Resolved, That while we deplore their great loss, we extend to the bereaved husband and kindred friends of our deceased sister and brother our heartfelt sympathies in their sore affliction.

While Sister Woodhams fell a prey to that slow and insidious disease, consumption, Brother Rutledge was stricken down suddenly like the fall of a planet from the sky.

Sister W., as charter member and first Flora, contributed much by her presence and example towards establishing and building up the Grange. She was a genial companion, a reliable friend, outspoken in her convictions of right, and ever faithful in duty.

Brother R., during his brief career with us, has proved his moral worth. Inside, as well as outside the Grange, his standing was that of integrity, good faith and honor.

May their good example be ever held fresh in our memory, and may the broken links be yet united in a brighter future.

J. KNOWLES,
I. A. WILCOX, } Com.
CART PEEBELS, }

Ordered published in RURAL PRESS and local papers.
A. B. HUNTER, Sec'y.

THE DICTIONARY SAYS.—Many of our members spoil the country's English by habitually mispronouncing some of the terms used in our work. We will call attention to some of them, hoping that we may speak as well as think correctly. Grange should be spoken with a long "a," as if spelled *Graynge*, not with a short "a," as we often hear it. National Grange is to be pronounced as if it was spelled *Nash-nal Graynge*. Patron has "a" long, as in lane, and if divided correctly will always be spoken properly as Pa-tron. Matron has also long "a," as Ma-tron. Ma-trons and Pa-trons plural come in the same list. Notice how Matron is divided and save inconvenience to others. Pronounce Steward as spelled—not as if it were Stuart. Notice violate and be careful to call it vi-o-late, not voi-late. Pomona and Flora suffer badly when spoken by some people. Pronounce them Po-mo-nah—Flo-rah; not Pomonay or Floray. Ceres should be pronounced as if spelled Ce-rees, with accent on the first syllable. By a little effort on the part of each officer, or at least of each Master or Lecturer, all in each Grange will soon learn to speak these terms correctly, and our language will be uniform.—*Farmer's Friend*.

Notice.—Should any Grange members or other persons in California have any government claims which they wish to have attended to, by writing to the undersigned they can be placed in communication with two experienced and reliable members of our Order in Washington, who will give their claims prompt and careful attention. J. W. A. WRIGHT.
Borden, Fresno Co., Cal.

SMEDLEY'S MANUAL OF JURISPRUDENCE AND CO-OPERATION.—We expect to receive immediately a supply of this important Grange book. We have been disappointed, with many applicants for the work, by its non-arrival.

Notes on Southern California.

EDITORS PRESS:—In looking over files of the RURAL, which I had not seen until my return, my attention has naturally rested upon an editorial in your issue of May 8th, entitled, "From the Manger." To use a common expression, "It brought me up standing."

Now, permit me to say, I am somewhat worried by that little fraternal "set-to" between our editorial brothers of the *New Italy* and the RURAL, and shall gladly do anything in my power to "pour oil upon the troubled waters."

One cause for my "worryment" is the fact which I must confess, that I find myself, on examination, to some extent the cause of this "scrimmage," though it was entirely unintentional on my part.

True, the matter arises partly from a slight misunderstanding on the side of our friends of the *New Italy*, which a few moments chat with them would enable them to understand and laugh over. For the rest I shoulder the blame myself, whatever blame there may be, and proceed to explain.

I will then add a few items which I learned from observation and listening, while making a delightful and highly appreciated Grange tour, in November and December last, in that splendid portion of Southern California embraced in Los Angeles, San Bernardino and San Diego counties, as well as Ventura, Santa Barbara and San Luis Obispo, their neighboring coast counties. Although in one or two brief letters, which will be found in your columns, I gave in general terms the very favorable impressions I received with reference to our really

Unsurpassed Semi-Tropical Regions.

And though I gave in a letter from Alabama, what I deemed a just comparison between the climate and advantages claimed for Florida, so long noted, and Southern California, whose greater advantages are just beginning to be known and fully appreciated, time has been wanting, from press of business and other circumstances beyond my control, heretofore to give facts as much in detail as I desired.

It is to be hoped that our fellow Patrons and friends there will understand that this comparative silence arises from no want of appreciation of a portion of our State which may so well lay claim to being known as our

New Italy.

The supposed letter, whose surmised fate was that dread of all correspondents, the waste basket, though intended and planned, was never written, much to my regret.

What misled our Los Angeles friends was probably a private letter about their many advantages, known to some of them to have been written, and which in the dimness of memory which we are all at times subject to, may probably have been recalled as a letter for publication.

In justice to my friends, the editors of the RURAL, on whose list of correspondents I have felt myself honored to have my name almost from the first issue of their paper, it is a pleasure and duty to say, that no correspondent could have been treated with more courtesy and friendly consideration in every respect than I have always been by them. Indeed, they have been so considerate, that no article of mine, however trifling, has ever gone to their waste basket.

And after an intimate acquaintance for years with them and their plans and wishes for their paper, which stands as high, wherever it is known, as any agricultural journal in this country or Europe, I must here place on record my belief that no editors have ever more sincerely and without bias or jealousy towards any locality, desired the welfare and full development of every agricultural and other true interest of a State, than the editors of the RURAL PRESS always have for every part of California.

Adhering to the great principle that Comparisons are Odious, Especially when disparaging persons, places or things, they have carefully avoided praising one portion of the State to the injury of the prospects of another portion, though they have always shown a readiness to do full justice to the good qualities and advantages of every locality. I hope and believe that, on the same principle, our State Grange, its officers and Executive Committee, have equally desired the advancement and prosperity of our brotherhood in every part of our State, and have ever been ready to labor for the interests of all, according to the means placed at their command. Our members have but to make known their reasonable wishes, and everything possible will be done to carry them out.

I trust our members in Los Angeles county, or elsewhere, will not think otherwise. If so, they unwittingly do injustice, and weaken all our efforts for good results. While we are far from having accomplished all we wish, let us be thankful to have done so much already. Will all our brotherhood here pardon me for the reminder that it is among our unanimously declared purposes, that "We shall constantly strive to secure entire harmony, good will, vital brotherhood among ourselves, and to make our Order perpetual. We shall earnestly endeavor

to suppress personal, local, sectional, and national prejudices, all unhealthy rivalry, all selfish ambition." The more fully we can carry out these principles, the more surely we shall secure the

Good of Our Order.

Let whatever blame I deserve rest on my shoulders, and I shall try to bear it. Hoping for future harmony and good understanding between the *New Italy* and the RURAL, and lifting my hat in grateful acknowledgement of the kind illusions to myself in both by my editorial friends, we will now take leave of this part of this lecture.

In my letter endeavoring to compare

Florida and Southern California.

Where it speaks of the manifest superiority of our dry, mild and bracing climate for invalids, I had reference especially to the counties of Santa Barbara, Los Angeles, San Bernardino and San Diego. In speaking of superior advantages for the culture of semi-tropical fruits, reference was made especially to Los Angeles and San Bernardino. The advantages of San Diego are chiefly for stock raising and bee culture, so large a part of its area is mountainous. In bee culture, few countries in the world, if any, can rival San Diego county. Along the base of the mountains in their narrow, winding valleys, you see many bee ranches, some with 100 or more stands of bees. The honey is made entirely from wild flowers, and mostly from mountain sage. That made in the early spring is as beautifully white and clear, and as richly flavored, as any honey can be. I was reliably informed that in 1874 the county shipped about 400 tons of honey, and would probably ship at least 600 tons this year. It is becoming the chief agricultural interest of the county, although besides mixed stock, some wheat and barley are also successfully raised in Osojon and Bear valleys, also around San Bernardino and San Pasqual. They greatly need the

Texas Pacific Railroad

To develop their resources.

In San Obispo, Santa Barbara, and Ventura counties, immediately along the coast, the climate was certainly charming and spring-like even in December, and in some of their beautiful valleys they make excellent crops of wheat, barley and corn. But so much of their area is mountainous, and used for sheep and horned cattle, that comparatively little space is left there to be occupied by immigrants, desirable as a residence in those counties certainly is.

In Ventura, about Saticoy and San Pedro, I found much more level, arable land than I expected. It is unquestionably very fertile, and occupied by most industrious, earnest, and thrifty people—almost all of them zealous Grangers.

Immediately along the sea shore in Santa Barbara county, near Carpinteria, I saw green corn, full of fine roasting ears, on the 5th of December. Indeed, it is a peculiarity of the Pacific coast that, as a general rule, the fertile soil extends to the very snuff.

One of the best grain raising regions I saw in these six counties was in the pretty little valley of Santa Maria, along the river of the same name, in San Luis Obispo county. The only cause for regret is that they have not sufficient space there to invite a large immigration. They have an excellent Grange hall, the lower room occupied by a store, and as good a Grange as I have visited in our State. On December 4th, our anniversary, their Worthy Secretary led to the Grange altar one of the fair sisters, and they were married by the Worthy Master.

But when you wish to speak of counties that have plenty of reliable lands to offer to new comers at reasonable rates, on which they can secure the means to raise certain crops every year, either on self irrigated lands, or lands irrigated by river water, or by artesian wells from sixty to one hundred and fifty feet deep; where they can raise, and are raising, to great perfection and with ease, the finest oranges, lemons, limes, olives, and English walnuts; where they can produce the finest grapes and make excellent wine and raisins; where they are beginning to raise bananas and dates, and can produce most Northern fruits well; where they make from sixty to one hundred and twenty-five bushels of corn per acre, good barley, with pumpkins, potatoes, beans and other vegetables in profusion; I verily believe that no country in the world can surpass in all these respects,

Los Angeles and San Bernardino Counties.

I confess I was surprised to see in those counties, and especially in Los Angeles, the large tracts of land on which forty, eighty, or one hundred and sixty acres of the character described above can be bought at say \$20 per acre on easy terms of payment. On most of these it has been proved by actual experiment that artesian wells of seven inch bore, and of the depth indicated above, can easily be had, with an inexhaustible supply of water. With these, each man controls his own water right and can irrigate to his heart's content, by making a cheap reservoir to confine the water and to reduce it to the proper temperature. These facts, and the results of cultivation with and without irrigation are finely illustrated at Westminster, Anaheim, Orange, Los Nietos, San Gabriel, and elsewhere in Los Angeles county, and at Riverside and San Bernardino, in San Bernardino county.

At El Monte, on bottom lands without irrigation, it is not uncommon to raise from 100 to 125 bushels of corn per acre.

But this letter is already so long that I must reserve some facts for the future.

J. W. A. WRIGHT,

Borden, June 1st, 1875.

From the Granges.

Sonora Grange.

EDITORS PRESS.—Sonora Grange is not often heard from, and being the only representative of the Order in Tuolumne county it may be well to bring it to the front. If other Granges progress as the Sonora Grange has progressed since its organization they may be perfectly satisfied with the result.

At the last meeting, first, third and fourth degrees were conferred, finishing with such a harvest feast as only can be spread out by the matron Granger. There is a family principle about these feasts which breaks down much of that dignified formality which characterizes other or similar associations. The introduction of woman to all associations of the Grange is something new of itself, and on that very fact is based the success of the Order. It is only granting rights long withheld, and it will be a stepping-stone to secure for woman many more social and public privileges long denied.

Under the "Good of the Order"—the best best order of business in the book—Sister Kelly gave a recitation something like "Shamus O'Brien," which brought down the house. Miss Kelly is highly gifted as a writer and declaimer. The Grange is a grand school for such, giving an opportunity for displaying native talent. I love to witness the sons of toil congregate for mutual improvement and social enjoyment. Nothing like the Grange has ever opened the doors of social intercourse and intellectual elevation, and its benefits and blessings are only in infancy. It is the dawn of a better day for the producers of bread. Under its Samaritan sway religion becomes practical. Man becomes imbued with a universal fraternal feeling by practicing the precepts taught in "brotherhood's temple."

I am not posted as to the number belonging to our Grange, but I believe it ranges from fifty to sixty. Some of the members reside twelve miles from the place of meeting, and it is refreshing to witness the regularity of attendance and the interest manifested.

At our last meeting, Captain Turner, late Master, exhibited some strawberries of the white order, which averaged the size of a hen's egg—I mean a small egg—large enough to eat like an apple. Captain Turner has gratuitously distributed sets of the plant for propagation. This mode of benefiting brethren through experience and success in peculiar branches of husbandry is one of the Grange's best traits. G. S. Soulsby, our present Master, adorns his position by strict attention to duty and geniality of disposition. The lodge is well officered and conducted with a true fraternal spirit. While we would not depreciate from the secret associations any of the merit they are entitled to, not one of them, ten years hence, will exert such an influence for good as the modern Grange, where matrons and maids, the freeman, farmer, agriculturist and horticulturist meet for social and intellectual culture.

May 27th, 1875.

JOHN TAYLOR.

Successful Co-operation.

EDITORS PRESS:—Westminster Grange was organized in October, 1873, with the full number (thirty) charter members. The number soon increased to sixty, and although few are joining now, our Grange is in a tolerably healthy condition. I do not think it has accomplished as much as it might have done. Sometimes it seems that a lack of confidence in each other and a spirit of jealousy prevails. We have accomplished one good thing at least, and that is the organization of a Grange co-operative store. This store company was our pet Grange measure, and all the details of its organization were developed in the Grange; but just as the matter was about completed, it was deemed best to allow any one to become a member of the organization, and now we have a few members who are not Patrons.

The success of this company is astonishing. Starting in a small building, with a capital of but \$500 and a trade of but \$600 or \$700 per month, it has grown to a business of \$2,000 per month cash and with a largely increased capital. A new building, the dimensions of which are twenty-four by fifty-eight feet, is nearly completed. The store company will use the lower floor and the hall overhead will be used by the Grange and for church purposes. Of course there were croakers and much opposition. One shrewd business man, who has had much experience in California, and who has made a fortune merchandising in this county, said we would "bust" in six months. Others who had experience in business, and who were anxious to see our settlement prosper, prophesied our failure. But in spite of all we have succeeded beyond our most sanguine expectations. Let our prosperity be a guide to other communities. Although we are making money in our business, still groceries, hardware and agricultural implements are sold much cheaper than before. Formerly we were obliged to go from eight to twelve miles to obtain our supplies; now the most distant member of the company has less than four miles to go. Any Grange or number of Granges can go and do likewise, and thus make "millionaires" of themselves, and if any profit is made they will have their share.

Westminster, June 1st, 1875.

O. H.

Rio Vista Grange.

EDITORS PRESS.—Taking it for granted that a few items from this neighborhood will be of interest to the readers of the PRESS, I take the liberty of sending you this communication. Our Grange is in a flourishing condition, notwithstanding the non-attendance of many of our Brothers and Sisters, who seem to have lost all interest in the welfare of the Order. We are not securing many new members now, owing in part to the failure of E. E. Morgan's Sons, said failure having discouraged many who were on the eve of sending in their petitions.

The denizens of these Montezuma hills are in excellent spirits over the prospect of the coming harvest, which promises an abundant yield, contrary to the fears expressed by many a month or two since. The farmers are of the unanimous opinion that the crops here cannot be excelled, if equaled, by any other place in this State, their expectations being that they will yield, at the lowest estimate from twenty to forty bushels per acre.

The "spelling epizootic" has reached us at last, and every Saturday evening a goodly company of "rosy lads and lassies" congregate in Canright district schoolhouse to see how many words they can spell, or rather miss. The old folks generally gave up the field to the young ones, with the remark, "They didn't used to spell so when I was young."

The Patrons of Rio Vista Grange are talking of a grand picnic on the 4th of July, but of this, more anon. Fraternally, E. M. T.

Rio Vista, Solano county, June 1st, 1875.

THE ORDER IN MONTANA.—A lady member of the Sheridan, Montana, Grange sends us a paper containing the proceedings of the meeting for perfecting the organization of a County Council for Madison county, also a notice of death of a sister, Julia A. Bitney, with resolutions passed by the Grange to which she belonged. Our correspondent reports a strong Grange, and adds: "We are getting along well."

REMOVALS.—The Grangers' Business Association are engaged in moving into their new and commodious quarters, 351 Market street, and in a few days will be ready to receive consignments of produce.

Mr. Earl, in his connection with the Bureau of Immigration, has removed his place of business from the Grange Headquarters to 123 California street.

NOTICE OF MEETING.—Santa Clara County Council, P. of H., will hold their next regular meeting at San Jose, on Saturday, June 12th, 1875, at 1 P. M. J. A. WILCOX, Sec'y.

THERE are forty Grangers in Washington Territory.

Industrial Items.

THE Lincoln fire clay has been used in the rolling mills at San Francisco, and found equal to the best Eastern quality. Two car loads of the clay have been used at Selby's works, San Francisco, and found satisfactory, and practical tests have been made in the potteries also at Oakland.

THE Butte Record says: It is announced that H. Hale & Son, of Petersburg, Ills., are willing to bring their woollen mills to California and take one-third the capital stock. Let them come to Chico, and they will not be obliged to repeat the offer.

IN Los Angeles the Board of Directors of the East Los Angeles and San Pedro street railroad have directed the president of the company to proceed at once to order the necessary material to build five miles of road, on the prismoidal plan, from the southern limits of the city to East Los Angeles.

LATE advices from San Fernando tunnel say that five hundred men are at work in the cut. The south end is 150 feet deep, and on the north end the work is on the approaches. Considerable trouble had been experienced from a cave of soapy sand.

MR. A. L. STINSON, proprietor of the Pioneer hosiery manufactory at Jefferson, Oregon, has commenced operations, the carding and spinning rooms being under the charge of Mr. James Barnes, a gentleman lately from a large factory in the East.

CORRECTED returns made to the Bureau of Statistics show that 18,106 emigrants, of whom 9,049 were males, and 8,157 females, arrived at the port of New York during May, 1875.

A NEW planing mill is being erected by the Central Pacific railroad company near the ship yard. Its dimensions are 200x60 feet, and two stories in height.

A JOINT stock company has been formed in Guerneville to manufacture chairs, with a working capital of \$4,000.

FROM 1,200 to 1,400 men are now at work on the El Dorado ditch, about half of whom are Chinamen.

THE wharf at Santa Monica has reached 1,300 feet from the starting point.

HUENEME now has telegraphic communication with the outside world.

OREGON reports are to the effect that there are very few fields in the State which do not promise an average, and many of them extra, and the warm weather which we may reasonably expect very shortly will bring the crop on finely.

"A Nice Little Party."

We have received intimations of an Eastern editorial excursion; a party consisting of seventy-two members of the Eastern press. The party is made up of first-class material, and the affair is under good management. The programme includes a visit to California, Yosemite, Big Trees, Geysers, the vineyards, orchards, gardens and pleasure resorts of the Pacific coast, the canons of Colorado, Utah, Rocky mountains and Sierra Nevada. Thursday, July 1st, is the time fixed for departure from New York, and it is expected that from six to eight weeks' time will be devoted to the excursion.

The objects of this excursion are simply "search for useful information" and to help give facilities to editors and their friends to see the far West under better circumstances than usually fall to the lot of travelers. We feel safe in guaranteeing to our editorial friends a satisfactory visit, for the country itself will surely bear examination, and the people will have an incentive beyond hearty hospitality and attentive courtesy and will realize that this visit will redound to the advantage of the country visited.

The party has expressed a desire for suggestions concerning any places possessing points of interest, and it is to be hoped that the residents of such localities will respond to this request, extending a cordial invitation, and that they will do all in their power to add to the pleasure and comfort of the excursionists. We are in communication with prominent members of this party, and any suggestions or invitations which our friends may wish to forward will be properly attended to if sent through the RURAL PRESS.

We would state here that the fair sex is to be fairly represented in this excursion, many of the editors being accompanied by their wives; and on the list we find the names of several ladies who are members of the editorial profession.

The University.

The Class of 1875—Commencement Exercises To-Day.

The class of '75 had its exercises yesterday at Berkeley, and a large assemblage of friends of the University were present. The class song was written by Harry J. Dam, and was a creditable effort. Following was the programme, part first taking place in the Assembly room, and part second at the Class Oak:

PART I.—Overture, *Stradella*; prayer, L. S. Burchard; oration, W. Carey Jones; music, selection from *La Traviata*; poem, H. J. W. Dam; music, Galop, *Trovatore*; closing address, J. F. Alexander, President of the Day; music, march, by Gung'l. PART II.—Overture, *Entrée*; oration at tree, Frank P. Deering; music, selection from *Somnambula*; class history, D. B. Huntley; music, polonaise, from *Tannhauser*; prophesy, Charles Boardman; class song, members of class.

The class is composed of the following students:

John F. Alexander, John W. Rice, Charles F. Boardman, Chesley K. Bonatell, Joseph G. Brown, Leonidas S. Burchard, Henry J. W. Dam, Alexander D. D'Ancona, Frank Deering, Clement F. Eastman, William P. Gummer, Isaac T. Hinton, Frederick V. Hollman, Dwight B. Huntley, William C. Jones, Herbert G. Lang, Arthur F. Low, George W. Pierce, Samuel R. Rhodes, Robert H. Robertson, Josiah Royce, James E. Simmons, Frank S. Sutton, Harry Webb, William R. Windsor, John O. Wyatt.

Commencement Exercises To-Day.

The programme arranged for the commencement exercises to-day is as subjoined: Salutatory oration, in Latin, Alexander D. D'Ancona, San Francisco. Philosophical oration, Lord Bacon, Isaac T. Hinton, San Francisco. English oration, Arctic Expeditions, Frank S. Sutton, San Francisco. Classical oration, A Passage in Sophocles, Josiah Royce, Oakland. Valedictory oration, Dwight B. Huntley, Oakland. Conferring of degrees. Address, by President Jno. Le Conte. Delivery of military commissions, by Gen. W. T. Welcker, Chief of Military Instruction. The addresses will be relieved with music.—Call, June 8th.

THE Sutter Banner tells of a single stool of wheat, the Proper variety, which contained forty heads and an average of sixty-six grains to the head, making 2,640 grains to the stool.

THE hay crop in the vicinity of Pence's, says the Oroville Mercury, has proved much better than was expected. Thos. Knox and Fred. Horn have cut excellent crops of grain hay.

CROP prospects in Los Angeles county continue to improve under the cloudy weather. Accounts from all quarters, says the Herald, are of the most cheerful character.

HAYING is about over in Calaveras county. Generally speaking the crop was an average one in the mountains, although it was a trifle short lower down in the foothills.

ACCORDING to the Colusa Sun, the late prevailing north winds destroyed thousands of dollars worth of grain in the Princeton section of Colusa county.

General News Items.

BEFORE her examination by the physicians which resulted in declaring her insane, Mrs. Lincoln carried \$57,000 in securities in her pocket. She also spent large sums of money, bought \$600 worth of lace curtains; three watches costing \$450; \$700 worth of jewelry; \$200 worth of Lubin's soaps and perfumeries, and a whole piece of silk.

THE Sioux chiefs have returned from their visit to Washington, dissatisfied with their treatment by the authorities, and it is feared they will take revenge for supposed grievances by attacking the Black Hills pioneers.

MRS. M. L. SANBORN is a candidate for Superintendent of Schools, in San Diego county, and as her qualifications are undisputed, and she is supported by papers of both parties, it is probable she will be chosen without opposition.

INDICTMENTS have been found against several citizens of New York for complicity in the Tweed frauds, and the prosecution of all suits against members of the ring are being pushed vigorously.

AFFAIRS in the Pennsylvania coal regions are still in an unsettled state, and a collision between strikers and miners now at work, may occur at any time.

THE Atlantic cotton mills in Lawrence, Mass., employing 1,200 operatives, will shut down on account of the dull market, on July 10th, and remain closed till September 1st.

MISS MARY TELFAIR, who died in Savannah last week, bequeathed the greater portion of her estate, valued at \$1,000,000, to religious and charitable objects.

THEY have a zinc spring near Quincy, Plumas county, and already wonderful cures are reported from those who have quaffed its waters.

THE suspension, for want of support, of the weekly journal, *Common Sense*, speaks well for the good sense of San Francisco people.

THE meeting of the National Photographic Society which was to have been held in this city next month has been postponed to 1877.

A FINE new barn belonging to Michael Rogers was burned in Sunol, Alameda county, last Monday. Loss, \$15,000; partially insured.

W. H. TALCOTT, buyer for H. B. Claffin & Co., has been arrested on a charge of buying \$400,000 worth of smuggled laces.

A GERMAN named Gotthold Behrens suicided by inhaling charcoal fumes in this city, on Sunday last.

REPORTS from the Fiji Islands state that 50,000 of the natives have lately died of the measles.

REV. A. R. FISK, the new pastor of Howard St. Presbyterian church, preached his initiatory sermon last Sunday.

THE P. M. S. S. Co.'s new steamship *City of New York*, was launched at Chester last Saturday.

THE Aroyo wine cellar in Visalia was destroyed by fire last Wednesday. Loss \$4,000. Incendiarism.

THE International Typographical Convention has been in session in Boston this week.

THE German corvette, *Arcona*, lies at anchor within the portals of the Golden Gate.

Goods intended for exhibition at the Centennial can be imported duty free.

COINAGE of twenty cent pieces has been commenced at the S. F. mint.

THE American rifle team sailed from New York on Saturday last.

A NEW time table on the S. P. R. R. went into effect this week.

MODESTO thermometers marked 105° in the shade last Saturday.

THE small-pox is raging in New York city.

A LETTER from Rohnerville to the Humboldt Times says: Hay making has commenced out in the hills, and there is said to be some demand for laborers in that section. No harvesting has commenced as yet in this section, though the crops are fast maturing and very promising.

FROM Sherman Island reports are to the effect that the wheat crop on all that portion that escaped the flood never was more promising. The straw is heavy and well filled, and the grain free from weeds.

THE Monterey farmers think there is a "special dispensation" for their benefit. They see their grain growing and its heads filling under the effects of a temperature whose laws appear enveloped in mystery.

FROM all quarters, says the Marysville Appeal, we hear complaints over loss of wheat from being whipped from the heads by the winds of last week.

THE Ukiah Dispatch says: The crops on the coast are looking finely. The great coast crop, potatoes, is expected to exceed all other years.

HARVESTING is going on upon the tule lands about Stockton.

FARMERS have already commenced haying in Washington Territory.

FARMERS about Merced are busy heading their grain.



Gossip of the Tea Table—No. 2.

[Written for the Press, by Mrs. C. I. H. NICHOLS.]

"Just to think of my going to a party with my hired girl!"

"What's the matter now?" asked Major Frank, who had only heard a part of Mrs. Bland's remarks, as he rose from the opposite table. "Where have you been with your hired girl, Mrs. Bland, that you are so scandalized?"

"Nowhere, Major, but Hetty was invited to the New Year's party, and I stayed at home, of course. I will not countenance this mixing up with the lower classes; am I not right, Major?"

"Indeed, Madame, that is a question entirely in woman's sphere. But allow me to state the case as I see it; and first, Hetty is good enough it seems, in every respect, to be a member of your family, where you are more 'mixed up' with her than at a public party. I am more particular about my home associates than the persons I may meet at social gatherings. The latter I cannot control beyond my influence as an individual, and am not responsible farther than to withdraw myself from what is positively evil in tendency. Immorality not being peculiar to any class of society, as we find it in our small towns, should be avoided in our associations at home or abroad. But Mrs. Bland, to return to Hetty—begging your pardon—I was at the party and had a very pleasant chat with her, and found her not only intelligent, but modest and lady-like in her manners; and to my thinking it speaks a good word for the mistress who sends out well-mannered servant girls, and two for the servant girl who improves her opportunity in a lady's kitchen to become a lady herself. Good evening, ladies;" and the Major bowed himself out.

"Did you ever see such a man! You never find him where you expect to," exclaimed Mrs. Bland, turning to the lady beside her, who had apparently been an interested listener.

"No, and yes," replied the lady, "I was a hired girl myself when my husband first met me—a table girl at his brother's, whose wife was a dear friend of mine before her marriage, which took place just before the breaking up of our family by my mother's death. My father died some years before. I like the Major and think him in the right. If the upper classes were not recruited from the industrious, virtuous and unselfish of the classes less favored by wealth and position, I fear they would become like stagnant water in which no life can survive. But here comes my husband, let me introduce him to you."

Hats, Shoes and Slips of the Press.

Sister "C. A. C.'s" hat in "Odds and Ends," March 13th, quite upset my gravity while it enlisted my sympathies, for haven't I worn, or neglected to wear, the same bonnet (a gray Neapolitan) the last five years, seeing no chance of a change—except to the ridiculous—unless it might be to the Quaker style, and that, though modest and appropriate, especially for old women, is rather oppressive to the head. Yes, indeed, why can't our sister Grangers adopt some style or styles of bonnet and hat to suit different ages and tastes and christen them "Grangers?" I am sure all sensible women would thank us and accept them—perhaps with variations—whether in or out of the Patron's circle.

Nothing could be prettier or more becoming than the shirred bonnet of silk or colored muslin, with a small cap crown, a narrow frill at the back, and a front not protruding beyond the face, and flaring from it just enough to be comfortable and becoming, trimmed with flowers and knots of ribbon for the young, and rich ribbon, plau or in bows and ends, for older women; and then (here comes in the economy of time, money and anxious care) let it be our fashion to wear them as we do our useful dresses, till new ones are needed, only varying in form or material as ingenuity or good taste may suggest, the uniformity of temperance in California being in our favor. Our action to be voluntary, of course, the paramount object being to emancipate ourselves from fashion, as a monopoly for the benefit of those who manufacture, rather than those who buy and wear. In allowing ourselves to be en-laved in any given direction, and training our children so, we are fostering the germs of moral imbecility. In adopting fashions of dress on a basis of health, comfort and economy, we cultivate beneficent principles of self-government that cannot fail to react on a bevy of social and financial abuses, that like insignificant rodents burrow around the tap roots of our social and political institutions to destroy them.

And now to descend from "the crown of the head to the sole of the foot"—some months ago I took the initiatory step—"placed my foot upon a paper on the floor and had an exact pat-

tern taken," for a shoe that should fit, not doubting that the experiment would be a complete success; for our shoemaker, besides many other accomplishments, excels in his profession, is emulous to turn out superior specimens of his handiwork, and my confidence in the result is increased by the plenty of time he is taking. I will be sure and report to sister "C. A. C.'s" satisfaction, all the advantages of a shoe from an exact pattern, when I get it. Meantime she has a niche in my memory, crowned with that ridiculous hat awry.

Week after week Mrs. Anthony and Mary Mountain—blessings on them—have peppered and spiced, and put their fingers in their own or somebody else's pie, pulling out plums and serving successive courses of viands rich and rare.

But my dear Mountain, you do swing so gracefully, and comically withal, on the tenter hooks of the Press, that I must laugh at and with you, even while I admire. I am watching—in my own interest—to see how you succeed in correcting the slips of our pet RURAL. Can it be that, like a lawyer's, your penmanship is only to be guessed at, and the Press compos and proof reader are deficient in the Yankee qualification of discovery? Between you, I think your May 8th episode of the missing "serial"—"lost," (best, as the type put it) "in the mail bag"—is worthy of a place in Harper's "American Humor," by S. S. Cox. It quite compensated me for the typographical cyclone that removed the first line (a question addressed to Mary Mountain) of my communication of April 3rd to the head, and left "my dear Mountain" standing with the interrogation point, as if, "with all my heart," I had called her to the front for a show! If only I had any use for the pulpit I gave my pupil!

Seriously, I give it up. We can't insure our communications against the "liberty of the press," but will poke fun at the pressmen if they will let us, and even this is a doubtful undertaking, since they can, by changing our lost missives into best ones, make us endorse all their wickedness.

Potter Valley, June, 1875.

Taking the Child's Measure.

It is recorded that once upon a time a father and mother, with their only son, visited the establishment of a Chatham street dealer in "ready-made" with a view to the equipment of the son with an overcoat. The son was a spare little fellow, considerably under the average size of boys of his age. The dealer, having learned of the parents that their boy was about twelve years old, went to the pile of overcoats from which he usually applied twelve-year old boys, and brought from it a coat which he proceeded to put on the juvenile customer. It hung on the youngster in awkward and ample folds. The parents objected, and insisted that the coat was too large. The dealer insisted that it was right. His reply has become historic: "Dere ish no trouble. De coat ish all right. De coat ish de proper size; but de poy, ah! de poy ish too small."

The parents are said to have turned away in honest indignation in quest of some dealer who could fit coats to boys, rather than insist on boys fitting a certain grade of coat.

That which seems absurd on the part of the Chatham street dealer is enacted continually in the religious culture of our children. There is a great deal of teaching done which is good enough of its kind, and which, if rightly dealt out to the minds for whom it is appropriate, would result in fine success; but the educational garment for an advanced growth of mind is often wrapped round the shrinking little fellow who knows very little, and has but a partial knowledge of what he does know at all. It fits him entirely too much. It envelops and smothers him. He is lost in it, and it acts as an extinguisher to his limited ideas.

On the other hand we sometimes make the "misfit" of teaching the more advanced child that which should be the portion of the primary learner. We give him, as it were, a garment of learrin; which is so much too scant that it will not meet around him. There is neither comfort nor fitness in wearing it. If he succeeds in crowding himself into it, it is only to split its seams and to burst it at the elbows. It is of no credit to anybody concerned with it. S. S. Times.

LETTING MEN DOWN.—A very charming daughter of one of the "solid men of Boston," being at a ball, was solicited by a combination of moustache, starch and broadcloth, for the honor of her hand in a dance, to which solicitation he received an affirmative answer. In a subsequent conversation the aforesaid combination inquired her father's business. "He is a wood-sawyer," she replied. The dandy sloped, feeling that he had let himself down a foot or two by the association. The lady's father was a wealthy dealer in mahogany, which occasionally has to be sawed.

A CURIOUS HEN.—The Somerset Herald tells this story: A certain family in Jenner township have an old hen that comes into the house every other day and flies up on the bed. The woman of the house then opens the bed, and lays a rag or piece of paper on it to prevent it from being soiled; the hen then pops on the paper, or whatever may have been laid down, and lays her egg; then flies down and goes out with the rest of the chickens till her time comes to lay another egg, when she does the same thing over. This is an invariable rule of hers and is strictly followed.

Discipline of Life.

The God of nature and of grace are one and the same embodiment of benevolence and wisdom and love, and "we his offspring are," his children and his heirs, hence the works and operations of nature and of grace never war against each other but act in harmony to the one great end, the elevation and happiness of the human family for time and for aye. If these first principles are kept constantly in view as a matter of firm religious faith and principle the sorrows of life, its disappointments and its tears would lose half their bitterness and the other half would soon be absorbed and forgotten in the contemplation of the great truth that "God is love."

We grow to mature age in the enjoyment of vigorous health; for half a life time we scarcely know what pain is; the physician has not been called to our dwelling; we have slept soundly; we have eaten heartily; we have been cozily housed in the bleak weary winter time and for the summers in long succession we and ours have hied to the country, to the seaside and the spa, and have had our fill of enjoyment. But by this time we have begun to feel that we have a charmed life; that we owe all these grand blessings to a vigorous constitution and that that constitution is impregnable against accident, calamity and disease, and with such feelings and experiences "we have waxed fat and kicked" like Jeshurun of old; or like Nebuchadnezzar, we have given the glory of them all to our might, our wisdom, our habits of life. But one day we come home not quite so well as usual, and we feel tired and sad; the tea-table is as tidy as before; the children are as blithe and glad as usual; the fire burns brightly as ever, but all these fail to wake up the echoes of loving joyousness as of old, and we retire to our beds with unspoken words; yet sleep comes not; but in its place restless tossings and the grumbings of approaching pains; anon the doctor is at our bedside; we look in his face, but there is no smile there; he makes a closer examination, but gives out no cheering word; he says nothing bad or good for the future, but, unsolicited, promises to call in again in the course of an hour; this is ominous, and we begin to feel our strong foundation crumbling beneath us; the world, its pleasures, its appetites, its ambitions and its material interests fade away from our vision; and as the system becomes more oppressed by disease, more racked by pain, and withal, still sinking, sinking, sinking; then it is that we begin to wake up to an appreciation of past privileges and past blessings, and sunshine; of our dependence on the arm of the Infinite One, and our own helplessness and nothingness; and to that Power we stretch our withered arms for aid, and raise our feeble voice for succor, and He whose ear is ever open, and whose kind eye never sleeps, comes to our help, raises us up to health again and we are saved from wreck and ruin; and as often as we forget, other sicknesses come to wake us up again to a new sense of our dependence and helplessness and to the appreciation of the true source of all our blessings; and to the same end are we followed by moral disasters, by pecuniary reverses, by social sorrows, by domestic afflictions, all intended to lure us on by love to brighter worlds on high; and thus it is that every pain and sob and sigh and tear is the "Discipline of Life" to wean us from the world and bind us more securely to the Everlasting One.—Journal of Health.

Women in the Garden.

However aghast some "fine ladies" may regard the idea of working in the garden, I consider it one of the most wholesome means of support within our reach. Wholesome especially because we have an object—and an interesting one in taking this exercise—which is the growth of flowers and plants. Before commencing work in the garden, put on a pair of worn-out leather gloves, a broad-brimmed sun-hat and a pair of good, stout boots; if not stout then wear a pair of thin gum overshoes. The dampness of the soil is very liable to produce a "cold." With a light five-pronged fork dig your flower-beds, rake the soil as finely as possible, sow the seed and put in a wooden label, with the name written distinctly upon it. The finer seeds require no raking, or a very slight brushing with a dusting brush. Don't be afraid that the labor will hurt you, even if you should become very tired; on the contrary it will strengthen you, give you rosy cheeks, and may add years to your life.

There is not a spring that I do not spend two weeks at least at work in the garden, and I can tell you that to me there is nothing so agreeable, I may say fascinating; and this feeling is doubled when I see the fine flowers and good vegetables growing and put upon the table from my own handiwork.—Cor. Germantown Telegraph.

PLEASEING.—The art of pleasing consists in being pleased. To be amiable is to be satisfied with one's self and others. Good humor is essential to pleasantry. It is this circumstance, among others, that renders the wit of old Rabelais so much more delightful than that of Swift, who, with all his satire, is "as dry as the remainder bisonit after a voyage." In society, good temper and animal spirits are nearly everything. They are of more importance than sallies of wit or refinements of understanding. They give a general tone of cheerfulness and satisfaction to the company.

A Suggestive Legend—Wine Drinking.

There is a suggestive moral in the following Grecian legend: When Bacchus was a boy he journeyed through Hellas to go to Naxia, and as the way was very long, he grew very tired, and sat down upon a stone to rest. As he sat there, with his eyes upon the ground, he saw a little plant spring up between his feet, and was so much pleased with it that he determined to take it with him and plant it in Naxia. He took it up and carried it away with him, but as the sun was very hot, he feared it might wither before he reached his destination. He found a bird's skeleton, into which he thrust it, and went on. But in his hand the plant sprouted so fast, that it started out of the bones above and below. This gave him fresh fear of its withering, and he cast about for a remedy. He found a lion's bone, which was thicker than the bird's skeleton, and he stuck the skeleton with the plant in it into the bone of the lion. Ere long, however, the plant grew out of the lion's bone likewise. Then he found the bone of an ass, larger still than that of the lion, so he put it into the ass's bone; and thus he made his way to Naxia. When about to set the plant, he found that the roots had entwined themselves around the bird's skeleton and the lion's bone and the ass's bone; and as he could not take it out without damaging the roots, he planted it as it was, and it came up speedily and bore, to his great joy, the most delicious grapes, from which he made the first wine, and gave it to men to drink. But behold a miracle! When the men first drank of it they sang like birds; next, after drinking a little more, they became vigorous and gallant, like lions; but when they drank more still they began to behave like asses.

Soul Culture.

So many works to do, so many things to think about, so many exigencies to avoid, no wonder that the soul becomes heavy with its clayey accretions, and must struggle to pull itself up and loose from the material. It needs the calm and assurance of spiritual heights to establish its strength, and reaffirm its promised joys. It is capable of the largest and gladdest activities, and feels circumscribed and restless on any low plane of action or development where these are abridged.

Consequently, all exercises which tend to spiritualize men's lives without interrupting their legitimate work will be advantageous, and a movement in the direction of a broader and healthier soul culture. Blending the spiritual meaning with the material expression, evolving the higher from the lower use,—this is an achievement which seems to indicate the Divine ordering. The snatch of a hymn caught between the pauses of labor; the silent influence of eloquent surroundings to arrest and woo the thoughts when the mind may unbend itself for a moment from care,—the suggested graces of a spray of flowers, or a beautiful picture, for instance; the instant obedience of the divine impulsions; these, and a thousand more things might realize for the soul a higher and more satisfactory development. Are we understood? More spiritual insight to the uses and possibilities of life, with its labor and its rest, its sorrows and its joy, its happenings and its hopes,—this is what we mean.—Methodist Recorder.

KEEP THE FARM AND HOME TIDY.—Like other good things, the following good advice comes to the surface occasionally and will bear repeating: If you get a moment to spare spruce up; put the gate on its hinges, put a little paint on the picket fence you built last year, trim up the door yard, make it cosy and inviting. Do not say you can find no time to attend to these things; the fact is you have no right to be slovenly. It can do you no good; but on the contrary, it will mar your peace, wound your self-respect, and impair your credit. Then, by all means spruce up a little at odd times, and even times, too, for that matter. It will make you feel vastly better, and, may be, a trifle prouder of your pretty homestead. Your wife and children will be made happier for it; your neighbors will be enriched, beautified and blessed by it; and your farm will be worth more money in the market, and of greater value to you at home, if you spruce up a little now and then.

A PASSING THOUGHT.—Think for a moment of the narrow limits of our knowledge! Nine hundred millions of featherless bipeds, more or less, are picking up a living, eating and drinking, marrying and giving in marriage, on this pretty planet of ours; of what infinitesimal proportion can you really unveil the secrets and gauge the virtues and the happiness? How many people do you know intimately enough to know whether their lot is, on the whole, enviable or the reverse? Every human being is a foreign kingdom to every other. We make short excursions into their minds; we touch at a port here and there; and we say glibly that we know them intimately. We know not how many dark corners are carefully hidden away from all strangers, and what vast provinces have never been reached in all our most daring travels.

IS IT ANY WONDER that our clothing merchants can sell pants at two, three and four dollars a pair, when the women who make them are paid only \$1.25 a dozen pairs?

A BLIND WOMAN in Iowa has learned to thread a cambric needle with her teeth and tongue. Is there anything in the world that a woman's tongue cannot do or undo?

After Marriage.

A philosopher writes: "The girl is generally educated on novels, and her first disappointment comes in on the quiet indifference of the husband after the honeymoon. 'You love me no longer,' said a bride of a few months to her better half in his gown and slippers. 'Why do you say that, Puss?' he asked quietly, removing a cigar from his lips. 'You do not cress me or call me pet names; you no longer seek so anxiously for my company,' was the tearful answer. 'My dear,' continued the aggravating wretch, 'did you ever notice a man running after a car? how he runs—over stones, through mud, regardless of everything till he reaches the car and seizes hold and swings on. Then he quietly sests himself and reads his paper.' 'And what does this mean?' 'An illustration, my dear. The car is as important to the man after he gets in as when he is chssing it, but the manifestation is no longer called for. I would have shot any one who put himself in my way when in pursnit of you, and would now shoot any one who would come between us, but ss a proof of my love you insist upon my ranning after the car. Learn to smoke, my dear, and be a philosopher. The two combined clear the brain, quiet the nerves, open the pores and improve the digestion.'"

BROKEN PROMISES.—Reader, never break your promises! And, to this end, never make a promise that you are sure you cannot fulfill. You may think it a trifling matter to make an appointment with a friend or agree to do a certain thing, and then fail to "come to time;" but it is assuredly not a small affair. If you get into the habit of neglecting to make good your promises, how long, do you think, will your friends and acquaintances retain confidence in you? The nearest and dearest of them will in time learn to doubt you, and will put but little faith in your words. And there is a half way meeting one's obligations, which might be called "bending;" a promise, which is a bad practice, and should be carefully avoided. For instance, you agree to meet a person at a certain time; but, instead of being punctual, you put in an appearance several minutes, perhaps an hour, after time; or you promise to do something for a friend, and only partially perform the duty. You may not exactly have broken your promise, but you certainly bent it, which is almost, if not quite, as bad.

WOMEN IN COLLEGES.—A correspondent of the *Chicago Tribune* writes to that journal in regard to the effect of co-education of the sexes, and the result of study upon the health of women, as seen in the experience of the college at Ann Arbor, Michigan, where the experiment has had a trial of six years. There appears to be no reason why the system should be opposed. So far as the health of women is concerned, it is evident that study is not undermining it, while there are said to be not a few among the sixty-seven now in the institution whose physical condition has been improved by the discipline of their college life. In regrd to the social aspect of the experiment this correspondent states that after the novelty of such companionship wore off the young men and women took little notice of each other, and, according to the established etiquette of Ann Arbor, there is no presumption of acquaintance between members of the same class. Then, "all are kept so busy that there is really little time for social intercourse."

LARGE AND SMALL ESTATES.—If laws were enacted that every section of land should be fenced and properly enclosed, and highways opened and improved through the great estates; that trees should be planted at every fence post on either side of the roads; that for the purposes of health, swamps should be reclaimed; that bridges should be built over every stream and gulch; that school houses should be constructed; that the traveler across the plains, made lonely by extended ownership, should be protected from Chavez and his gang by a patrol of mounted police, and all this at the expense of the land owners, by assessing their lands at the value they would possess if properly cultivated, the monopolists would very soon see the propriety of subdividing their estates. Such a course of legislation would be just and equitable. Our landed lords now enjoy their possessions at the expense of others; they do not pay their just proportion of taxes nor bear their just burdens in a community; they shirk their obligations, and are in fact pensioners and paupers in their relation to society.—*S. F. Chronicle.*

AN INDEPENDENT DAMSEL.—The *Kingston Freeman* says that one of the young ladies from the upper part of Kingston had a general invitation from the messngers to a social hoprecently. No gentleman took the trouble, however, of asking to escort her to the hall, and, after arraying herself in a magnificent suit, she thought it would not be doing justice either to herself or the managers to stay at home. Therefore she exercised her woman's rights, ordered a handsome rig from the livery stable, and went to the party in excellent style. The boys found it out, and, when it came time to take her home, a dozen asked permission to see her safe in the paternal mansion. But she positively refused, saying, "I came alone, gentlemen, and, as it has long been my rule to allow no person except the one who escorts me to a party to take me home, you must excuse me." Then she told the driver to move on. The boys like her independence, anyhow.



Scene at a Fire in San Francisco, A. D. 1900.

Young Folks' Column.

Boys, Learn To Do Things.

Henry Bell was brought up on a farm. His father was a physician; but he had a large farm on which he worked more or less, when professional duties would allow, and he taught all of his seven boys to work; and not one of them, even those in professional life, has ever regretted this early training.

Henry, from his boyhood, had a great desire to do everything he saw any one else do. He liked to spend his play hours with the tools in his father's shop, making bows and arrows, sleds, boxes, etc., which he learned to make very neatly.

In those days each family had their boots and shoes made at home. A shoe maker, or a cobbler, as he was then called, came with his bench and tools on his shoulder, and spent days and even weeks, making all the boots and shoes of the whole family for a year. Those occasions were full of interest to Henry. He begged the privilege of going into the chamber with the shoemaker and learning his trade. He very soon learned to peg and sew, and make himself quite useful in the work. To be sure, there were times in after years, during his college vacation, when his knowledge and skill in mending old boots and shoes were of more use to the family than of recreation to him. Still he has never regretted that he came so near being a shoemaker.

Henry had a great taste for the garden. Raising all kinds of vegetables, flowers, shrubbery, etc., was his delight. While his brothers and the hired men were resting at noon-time in the summer, he would seek his rest among his thriving beds of beets and carrots, watching the growth of his melons and cucumbers, and enjoying the varied beauties and sweet fragrance of his roses and pinks, etc. And this interest in horticulture has grown ever since, as every one can see who visits his vine-clad home, in the midst of choice shrubbery and ever-blooming flowers.

This knowing how to do things, which Henry so early learned, has been an unflinching source of pleasure as well as a practical benefit to him all his life. For the forty years he has had a home of his own, there has been scarcely a week, or even a day, when his knowing how to do things has not been of service to him. There is hardly any little repair or improvement needed about the house but he can make it. And while it is usually a pleasant recreation to lay aside his studies for a short time, it is also an important matter of economy.

Now, boys, is it worth your while to be learning to do things? All may not have an equal tact or natural genius for turning their hand to almost everything. But everyone ought to know enough—no matter what his employment is to be, not to harness a horse, if called to harness one in an emergency, with his head toward the carriage, or to put on a saddle and foremost, or to think that he is doing a smart thing by making a round button for a door, or putting in a screw at each end of one that is properly made, as some men with an honorary title at one or both ends of their names have done.

We commend this subject of learning to do things to the attention of all boys; and we presume the girls, too, may find it greatly to their advantage to be learning to do things in their sphere of life.—*Congregationalist.*

THE LITTLE FLOWER.—One day two young girls went to town. They were both daughters of a gardener. Each of them carried a basketful of fruit or flowers. As they went along, one of them became dissatisfied at the weight of her basket; the other went easily, singing all the time. "I cannot understand why you sing," said the first to her sister; "you are not any stronger than I am, and your basket is just as heavy as mine." "The reason is," said the other, smiling, "that I have put a little flower in my basket, which keeps me from feeling its weight. Do you likewise." "That must be a very costly flower," said her sister, "but I should like to own it very much; please tell me its name." "The little flower," said the other, "which makes the heaviest burden easy, is called—Patience."—*Union and American.*

Good Health.

Contaminated Drinking Water and Typhoid Fever.

Dr. Haegler of Basle, gives the details of an outbreak of typhoid fever in the village of Lsussen, near Basle, where the ordinary conditions that have been said to govern the disease, such as the character of the subsoil and subsoil water, were extremely unfavorable for the development of the disease, and where, in fact, for a long time there had been no typhoid. In August fifty-seven cases occurred within a space of nine days, and in all the houses of the village except six, while these six drew their water supply from a source entirely different from the others. On investigation it was learned that two months previously there had been cases of typhoid in a farm house not far from the village, and that the dejections of the patients had been thrown into a little stream running through the yard, or into a ditch communicating with it; this stream joined the larger one that supplied the village. Other excrementitious matter had also been thrown upon dung heaps, from which a drain led to the same stream. Dr. Haegler concluded from these facts:

1. That the epidemic of typhoid fever in this instance was the result of drinking water contaminated with the dejections of typhoid patients.

2. He believes that typhoid fever depends upon a specific poison obtained from typhoid patients. Other putrid matter and decomposing organic substances, and at any rate, the filth of privies and dung heaps with which the typhoid dejections may be mingled, cannot produce the disease, since this instance shows that the drinking water of the town had been fouled by these substances for years without producing any bad result.

3. The ordinary filtration of contaminated water by its passage through the ground, will not disinfect the water or furnish any protection against the action of the typhoid poison.—*Jour. of Applied Chemistry.*

Acidity.

Acidity of stomach always arises from that organ not being able to digest, to work up the food eaten, to extract the nutriment which it contains, hence two results: First, the food decays, that is rots, becomes sour and generates a sour gas, which is belched up, causing a burning or raw sensation, located apparently at the little hollow at the bottom of the neck, or in that vicinity. Sometimes an acid fluid is generated and is belched up, and is so very sour occasionally as to take the skin off some parts of the throat, mouth or lips. Second, the food not being properly worked up, does not give out its nourishment, the system is not fed, and consequently becomes weak, the circulation becomes feeble, the feet grow habitually cold; the person is easily chilled, and dreads going out of doors; is happiest when hugging the fire, and takes cold so easily that the expression is frequently used, "the least thing in the world gives me a cold." When such a condition is reached these colds are so frequently repeated that before one is cured another comes, and there is a perpetual cough which the most unintelligent know is the certain harbinger, the forerunner of consumption of the lungs.

When persons are troubled with indigestion, and one of its effects, acidity, the advice given in nearly all cases is to take something to correct the acidity, such as cream of tartar, soda, saleratus, the ley of wood ashes, and other alkalis. These things correct the acidity, but the stomach gets no power of a better digestion, the effects as far as sensation is concerned are removed, but the system continues to be improperly nourished; the man grows thinner and weaker; and with wasting of flesh and strength, there is diminished power of circulation; the person becomes chilly, colds are taken from slight causes and at diminishing intervals, and before he knows it he has an annoying, hacking cough, which too often ends in a wasting, fatal disease.

When acidity follows eating, it is because there has been an error in the quantity or quality of the food eaten; the stomach could not manage it, could not perform the work imposed upon it. The true remedy is to eat less and less at each meal, until no acidity is perceptible, or to change the quality of the food; and in a short time the stomach, not being overtasked, gets time to rest, to recuperate, to get strong; then it digests more food and digests it better, with the inevitable result of a more vigorous constitution, more power of endurance, more strength of body and greater elasticity of mind, more happiness and a spirit and energy to grapple with life's duties, which makes existence a pleasure.—*Hall's Journal of Health.*

TO PREVENT COUGHING.—The best method of easing a cough is to resist it with all the force of will possible, until the accumulation of phlegm is greater, then there is something to cough against, and it comes up very much easier and with half the coughing. A great deal of hacking and hemming and coughing in invalids is purely nervous, or the result of mere habit, as is shown by the frequency with which it occurs while the patient is thinking about it, and its comparative rarity when he is so much engaged that there is no time to think, or when the attention is impelled in another direction.

Domestic Economy.

Dinner.

Dinner, both in the nature and quantity of its components, must be regulated by the constitution and judgment of individuals, who, however, bearing in mind a constant and consistent discrimination with respect to aliments, should be careful to study the peculiarities of their constitution and digestive powers, and to adapt their diet to them. We may, however, very well add, that those who are chiefly employed in mental occupation, and not exposed to much bodily labor, require less animal food than such as are in the continual exercise of corporeal strength, and should consequently avoid excess in that particular; with this exception, that an hysteric or hypochondriac tendency seems to require animal food, which, however, should be freely joined with the vegetable. We may here also properly remark that no error is in this country more common or more dangerous than the neglect of bread. This valuable edible is the safest and most nutritious of vegetable aliments, and the best corrector of animal food. By its plentiful use alone, the bad consequences of an excess of the latter may be obviated. The tables of the French are supplied as freely with animal food as those of the English, yet that people, by a greater use of bread and dried acid fruits, prevent the ill effects of a heavier diet, and preserve a cheerful buoyancy of spirits, to which the generosity of the phlegmatic islanders are strangers. The English, therefore, who are so much devoted to animal food, should particularly moderate its effects by a liberal use of bread and other vegetable matter, since vegetable food is necessary to secure, not only health, but long life. In infancy and youth we should be confined mostly to it. In manhood and the decline of life we should more freely use animal nourishment; and in old age, we should return to the vegetable. Vegetables and milk, indeed, are strong antidotes to scurvy, and putrid and inflammatory fevers; nay, in the former disease, milk alone will frequently do more good than any other remedy.—*Ex.*

MINCED VEAL WITH POACHED EGGS.—Take some remnants of roast or broiled veal, trim off all brown parts, and mince very finely. Fry a chopped shallot in plenty of butter; when it is a light straw color, add a large pinch of flour and a little stock; then the minced meat with chopped parsley, pepper, salt and nutmeg, to taste; mix well; add more stock, if necessary, and let the mince gradually get hot by the side of the fire. When quite hot stir into it off the fire the yolk of an egg and the juice of a lemon to be strained and beaten up together. Serve with pipets of bread fried in butter, round it, and three or four poached eggs on top.

NUN'S PIE.—Soak one pound of salt codfish in cold water for two hours; put it on the fire to boil, adding a small red pepper and the skin of an orange. Boil eight good sized potatoes, and, when ready to mash, pick up the codfish, squeeze over it the juice of one orange, and mash all together; add a large lump of butter, put the mixture in a bake-tin, and cover with bread crumbs; scatter a few small lumps of butter over it, and cover the whole with milk. Bake one hour. If well made, it will be as light as a meringue pie, and, altogether, enjoyable.

APPLE PUFFS.—Mix a quarter of a pound of butter with a quart of sifted flour, two eggs and a spoonful of salt; half teaspoonful soda, dissolved in a little cold water; moisten it with cold water so that you can just roll it out easily; roll as thin as possible; out into oakes; put three of them together, sprinkle flour between each one; lay on the top thin slices tart apples; sprinkle sugar and a little nutmeg over them; press the edges well together, fry in sufficient hot lard to cover them. When of a light brown take up carefully.

DELMONICO PUDDING.—One quart of milk; three even tablespoonfuls of corn starch, dissolved in cold milk; the yolks of five eggs; six tablespoonfuls of sugar. Boil three or four minutes; pour in a pudding dish and bake half an hour, or perhaps less; time will do if the oven is hot. Beat the whites of the eggs with six tablespoonfuls of sugar; put it over the top and return the pudding to the oven till it is a nice light brown. No sauce. Nice for Sundays, as it can be made the day before.

TO FRY CHICKEN.—The best fried chickens are thus prepared: The chickens are killed, scalded, picked and washed out cleanly in water, then quartered and thrown into boiling lard. In a few minutes they are done brown, and are then removed and served up hot and dry, not put into grease again. In this way the fowl "is tender as chicken," and is a great delicacy. If you don't believe it, try it, and if you do believe it, try it.

ARNICA LINIMENT.—Add to one pint of sweet oil two tablespoonfuls of tincture of arnica; good for wounds, stiff joints, rheumatism and all injuries.

VINEGAR WHEY.—Take of milk one pint, vinegar half an ounce; boil for a few minutes, and separate the curd. Excellent for the sick.



PUBLISHED BY
DEWEY & CO.
A. T. DEWEY, W. B. EWER, G. H. STRONG, J. L. BOONE
PRINCIPAL EDITOR.....W. B. EWER, A. M.

OFFICE, No. 224 Sansome street, Southeast corner of California street, where friends and patrons are invited to our SCIENTIFIC PRESS, Patent Agency, Engraving and Printing establishment.

SUBSCRIPTIONS payable in advance.—For one year, \$4; six months, \$2.25; three months, \$1.25. Remittances by registered letters or P. O. orders at our risk.
ADVERTISING RATES.—1 week. 1 month. 3 months. 1 year
Per line.....25 50 75 24.00
One-half inch.....\$1.00 \$3.00 \$7.50 24.00
One inch.....2.00 5.00 14.00 40.00

Large advertisements at favorable rates. Special or reading notices, legal advertisements, notices appearing in extraordinary type or in particular parts of the paper, inserted at special rates.

No Quack Advertisements inserted in these columns.

SAMPLE COPIES.—Occasionally we send copies of this paper to persons who we believe would be benefited by subscribing for it, or willing to assist us in extending its circulation. We call the attention of such to our prospectus and terms of subscription.

SAN FRANCISCO:
Saturday, June 12, 1875.

TABLE OF CONTENTS.

GENERAL EDITORIALS.—Cultivation of Tea, 385. A Good Volume to Keep; The Potato Blight; Home Grown Sweets, 392. Haying and Harvesting; An Economic Success; A Colorado Lake, 393. Patents and Inventions, 398.
ILLUSTRATIONS.—Cultivation of Tea, 385. Upper Twin Lake, Colorado, 393.
CORRESPONDENCE.—A Trip to Yosemite; Deep Plowing and Irrigation; Questions and Suggestions; From Santa Clara Valley; Will Alfalfa Pay? 396.
POULTRY YARD.—Poultry at the International Exhibition, 387.
SHEEP AND WOOL.—Sheep Raising; Eastern Wool Markets, 387.
USEFUL INFORMATION.—Filing Saws; The Strength of Wood and the Efficiency of the Axe; To Prevent Splitting of Handles; Tempering Steel; To Work Hard Steel, 387.
PATRONS OF HUSBANDRY.—Our Friends Outside the "Gate"; Grangers' Business Association; In Memoriam; Notes on Southern California; From the Granges, 388-9.
HOME CIRCLE.—Gossip of the Tea Table—No. 2; Taking the Child's Measure; Letting Men Down; A Curious Hen; Discipline of Life; Women in the Garden; Pleasing; A Suggestive Legend—Wine Drinking; Soul Culture; Keep the Farm and Home Tidy; A Passing Thought, 390. After Marriage; Broken Promises; Women in Colleges; Large and Small Estates; An Independent Damsel, 391.
YOUNG FOLKS' COLUMN.—Boys, Learn to do Things; The Little Flower, 391.
GOOD HEALTH.—Contaminated Drinking Water and Typhoid Fever; Acidity; To Prevent Coughing, 391.
DOMESTIC ECONOMY.—Dinner; Minced Veal with Poached Eggs; Nun's Pie; Apple Puffs; Delmonico Pudding; To Fry Chicken; Arnica Liniment; Vinegar Whey, 391.
POPULAR LECTURES.—Economy of the Vegetable Kingdom, 393.
AGRICULTURAL NOTES from various countries in California, Oregon and Washington Territory, 396.
MISCELLANEOUS.—Monthly Report of the Bureau of Immigration, 387. Industrial Items; The University; General News Items, 389.

A Good Volume to Keep.

The volume of the RURAL PRESS now nearly completed will be especially valuable for preservation, on account of the course of lectures by Prof. Bessey. These lectures are of themselves worth more than the subscription price of our paper. As scientific productions they are of the highest order; in sound sense and practical merit they cannot be excelled; while the style is so attractive that the casual reader will find himself enticed into the depths of natural history almost unawares. The lecture which we give this week, with four succeeding ones which complete the course, will be found especially interesting to stock breeders; and if every parent in the country would read and ponder over their teachings the country would be the gainer thereby.

Another valuable series of articles which the present volume will contain, in the short essays on sheep raising by Col. Stowell. These, too, are sound and practical in their teachings, and are also extremely attractive in style. And we here invite the reader to look through this volume of the RURAL PRESS and apply this test, and see if we have not demonstrated that an agricultural journal can possess life and vivacity without detracting in the least from its practical value.

Be sure and keep a file of the RURAL PRESS.

ON FILE.—"Potato Wealth and Potato Woe," J. C. C.; "Reclamation and Winter Flooding," S. F. M.; "Claveras Valley" and "What Are They," G. W. M.; "Culture of Flax," J. P. J.; "Paradise Grange," W. P.

The Potato Blight.

We have at the present time a recurrence of the slight temporary panic that prevailed at this season last year. In the potato growing districts of Half Moon bay and the Mission—the same spots that were visited by the blight of last season—this year's crop is probably a hopeless failure. We find a great diversity of opinions, and of statements also, in regard to the blight. Some declare that it is simply the result of the late spring frost; that the growth since that partial blight has not been healthy, and this diseased growth has culminated in the present disaster.

There is more reason in this view of the subject than might at first appear, for, though the ravages of a destructive parasite are apparent here, it should be considered that potato vines—like all the rest of us—are forever surrounded with parasites, generally in limited numbers, however; for while the growth of the vine continues vigorous, they are, if not strictly invulnerable, strong enough to outgrow any temporary injury. Besides—and here is the great advantage of vigorous growth—there is apparently a certain stage of the growth particularly adapted to feed, foster, and promote the increase of the parasite, and when, in the rapid changes incident upon a vigorous growth, the parasite, like a traveler by rail, is only allowed "fifteen minutes for dinner," at a certain station, it is not well for the parasite community. But when from unhealthy seed, atmospheric or other causes, the growth is weak and languid, and a long delay of the train occurs at any station, the parasite feasts day after day, a fearful increase ensues, and they are also more powerful for evil in succeeding seasons on account of this slight advantage.

Is it not, therefore, reasonable to suppose that Jack Frost really had a hand in this potato blight? Not that the direct effects of the frost have been lingering about the vines all this time, but because their growth was seriously retarded by that attack, thus giving the parasite an opportunity to multiply.

Another, and what seems to us a still more sensible view of the subject, is this: In the districts visited by the blight, the potato crop has been repeated and repeated year after year, with—we have a right to suppose—little regard to the renewal of seed. Within this period of over twenty years in some cases, the land in these districts has changed owners and lessees, but no change of crop has ensued. It needed no prophet to foretell the disastrous results from such a system, and the potato growers have been properly warned by those who foretold the consequences; but convenience, and the prospect of immediate profit, induced them to continue the practice. It would be well for farmers in other potato growing districts to give this matter serious consideration, and indeed the producers of any special crop may learn a lesson here.

It would undoubtedly be a gain in health to the potato, and consequently to its consumers, if it were shifted into new districts and other crops grown in their present quarters, for a few seasons at least; and we are pleased to see that the *Foothill Tidings*, incited by the disastrous news from the Mission and Half Moon districts, urges the farmers of the foothills of Nevada county to take to potato growing.

During the past week, Dr. Harkness, with other scientific gentlemen, visited the grounds of the Almshouse, where the blight was known to prevail, and examined the crop. At a subsequent meeting of the S. F. Microscopical society, Dr. H. gave the result of his observations, from which report we make the following extracts:

"It has been known for many years that the potato rot proceeds from a fungus which destroys the vitality of the plant, and which was named *Botrytis* by Montagne, who first described it. As it has, however, since been discovered that the pest belongs to a pretty extensive family, termed *Peronospora*, it has received the specific name of *Peronospora infestans*. Its first appearance this season, as far as reported, was on Wednesday of last week, at the Almshouse farm, where its work was accomplished with a rapidity which seems incredible. On the day previous to its appearance, May 26th, the plants were green, and apparently in luxuriant health. On the day following the fungus had already accomplished its work. The shrunken leaves were of a dirty brown; the stems, also involved in the general ruin, were of a blackened hue, while the tubers already exhibited signs of decay.

"Although the potato fungus has received the attention of scientists for a quarter of a century, there are still questions regarding its growth and development which remain unanswered. It has been determined, however, that the germ exists in the leaves and stems of the potato plant before its appearance upon the surface of the same, in the form of minute mycelial threads. These may remain for an indefinite time perfectly innocuous, or until the atmospheric conditions favor their further development. As to the atmospheric changes requisite to act these morbid forces in motion, there is still doubt. Most observers have attributed the result to a foggy night. In the case in point, the night preceding its appearance was exceptionally fine and clear. In this instance, however, the wind currents were from the sea, and surcharged with moisture with too high a temperature to admit of con-

densation, in which case some of the supposed necessary conditions for its appearance, viz: warmth and moisture, were fulfilled.

"When the fungus has once begun to develop, its growth proceeds with great rapidity. The mycelial threads are extended in every direction between the cell structures, the protoplasmic elements are appropriated by the fungus, and the plant cells die from exhaustion. On the other hand, the mycelium forces its way to the surface of the leaf through the breathing pores, or stomata. On reaching the outer surface, branches are thrown off from the mycelium, each one of which bears on its tip a sporangium. These sporangia are egg-shaped bodies, each containing from six to sixteen zoospores. These latter are motile, when placed in water, and swim away by means of cilia. After a quarter of an hour or so, the cilia drop off and the spore settles to the bottom of the vessel, and is in a condition to germinate. When we consider the fact that under the surface of each leaf there are thousands of such sporangium branches, each surmounted by its sporangia, filled with spores, we need no longer be surprised at the rapidity of its increase or the extent of its havoc. As before stated, but a few hours are requisite for the full development of the fungus; it is more than probable that before the sun had risen upon this plague-stricken field, the mature sporangia had burst and showered down upon the earth beneath their myriads of spores. The tubers, now deprived of the necessary support derived from the stem and leaves, soon succumb to the deadly influence of the fungus. [Dr. Harkness here exhibited specimens of the fungus under the microscope, in different stages of development.]

"As this disease is so violent as to cause the destruction of a crop in a single night, it is useless to discuss methods for a curative treatment. The farmer, who has lost the proceeds of his summer's toil between the hours of his sleeping and awaking, is in no proper mood to hear suggestions as to what might have been done to arrest its progress. After exhausting all our resources for acquiring a correct knowledge of the causes of the disease, we should manifestly give henceforth our undivided attention to searching out means for its prevention. Of the many expedients which have been suggested for the accomplishment of this purpose, none have, as yet, been attended with more than a partial success. It would appear, however, reasoning from analogy, expedient to import the seed for the coming crop from a distant and non-infected district, and to wash the tubers in a solution of some material which may prevent the germination of any spores that may be on the surface, and, afterward, to store them in such places as will keep them as free as possible from contagion."

To attempt to identify the potato blight of the last two seasons, in the above named districts, with the historic potato rot which about a quarter of a century ago was the curse of the Irish famine, and was so destructive throughout the Eastern States as to produce apprehensions that this vegetable would really go out of use and cultivation, indicates a very limited acquaintance with the potato rot proper. The indications of the presence of that terrible disease were to be seen in the vines, and it did not make its appearance till the tubers were full grown; and in many, very many cases, fields of potatoes in which no indications of disease were discernible, either in vines or tubers, were dug and stowed away in a supposed prime condition, and in the course of a few weeks or months would be

Found a Rotten Mass.

Extremely obnoxious to the sight and touch, and more fetid than it would seem possible for vegetable matter to become. No soil was exempt from its presence and the most favorable weather caused only a temporary delay, while some conditions of the atmosphere greatly accelerated its progress. Sometimes during one week in August, when the days were mostly sunless and the nights hot and humid, the potato crop would pass from a seemingly healthy state to the condition above described.

Good out of Evil.

We are aware that it is considered about as presumptuous to declare what might have been in the past, as to predict what will be in the future; still we will venture the opinion here that it is to the potato rot that we are mainly indebted for the new varieties of later years. Farmers and everybody else lost all confidence in the varieties then grown, and a general attempt was made to produce something new in the way of seedling. The result was some excellent new and healthy varieties. Many of these are at the present time, no doubt, less healthy than formerly, and if the moderate average lessons of this and the last season will stimulate potato growers to make a somewhat radical change, without waiting for the veritable rot to appear, they will have been cheaply learned.

THE MECHANICS' INSTITUTE.—The election of seven Trustees, to fill vacancies on the Board of the Mechanics' Institute, took place on last Monday. Two opposition candidates were voted for—C. J. Prescott and J. H. Stoutenborough, the latter of whom was elected. There were nine nominees, and the result was as follows, the two last mentioned not being elected: P. B. Cornwall, 291 votes; S. C. Patrick, 283; D. E. Hayes, 271; H. S. Smith, 277; Charles Elliot, 268; Jeremiah Brownlee, 163; J. H. Stoutenborough, 161; C. J. Prescott, 151, and W. J. Stoddard, 141. The other members of the Board are A. S. Hallidie, H. L. Davis, A. R. Wells, George Spaulding, James Spiers, W. P. Stout and R. B. Woodward.

Home Grown Sweets.

We have observed of late indications of a growing desire among the farmers of the State to produce their own sweetening material. Some of our friends have been examining the subject of sorghum, others are considering the practicability of growing watermelons, to be converted into sugar, and one advocate growing the sugar cane proper for home use. As we interpret these indications, they mean that people realize that sugar, or its equivalent in syrups, etc., is a costly item of good living, and that they are determined not to stint in the use of it, but to produce it so that they can afford a more abundant consumption of it.

Twenty-five years ago such an indication among farmers of an increased demand for sugar would have been set down as evidence that farmers were degenerating in various ways. Nothing was considered more effeminate among the old style American farmers than a taste for sweets, and all sorts of measures were used to repress this appetite. Even the medical profession of former times contributed its mite of knowledge to restrict the use of sweets. It was declared to be unhealthful and especially injurious to the teeth; and the belief that sugar destroyed the teeth, while tobacco preserved them, that indulgence in the former indicated effeminacy, while the use of the latter was manly, has done much toward making a tobacco-chewing people of American farmers. But within the last ten years a radical change has come over the public mind, and of course over the medical profession also, in regard to the healthfulness of sugar; and now the average American farmer or anybody else would as soon be known as a lover of sweets as a chewer of plug tobacco. It is now considered quite as manly to yield graciously to the natural craving for delicacies, as to cram the stomach with too strong a diet.

For our part, we could never appreciate the heroism displayed in this war against the sweets, and would be glad to see an increased indulgence in them; for among other advantages gained, they would become auxiliaries in increasing the consumption of fruits. But whether it is practicable for farmers to produce their own sweets is a question we are not prepared to answer. We are not of those who believe that the millennium is to be brought about by farmers raising all they consume; on the contrary, we are inclined to think that progressiveness in agriculture, as in manufacturing, tends to a division of labor; but as to each family raising its own material for sweetening, we know it is practicable under some circumstances, for we have done it both with sorghum syrup and maple sugar. Of course we cannot produce the latter here, but the former, with beets, melons and sugar cane, as many believe, can be grown and converted into syrups in most neighborhoods, and these exchanged or made into sugar at sugar factories. The attempt at home production will develop points not yet conceived.

In regard to growing and utilizing the sugar cane in California, Dr. B. Hamlin, of Grangeville, Tulare county, writes us as follows:

"You will pardon me for calling your attention again to the culture of the sugar cane. Having been a resident for several years of Florida, where cane is grown to perfection, on coming to Tulare county, in this State, where I now reside, and finding so striking a similarity in climate, I am confident that cane can be grown here superior by far. Firstly, because the soil is richer and more productive; and secondly, because in all of these districts where moisture is obtained by irrigation, it can be supplied to the cane, as it is required. The seasons here are amply long, and the winters much milder than in most of the cane growing States of the South. It is manufactured just as easily as maple sugar or sorghum, and one-half an acre is sufficient for all the sweets any family can consume, besides having 500 pounds to sell, and having an article of sweet superior to any other. Were I a farmer, I would demonstrate this by actual experiment. If any of your subscribers feel disposed to do themselves and others the kindness to try it, I will inform them gratuitously where they can obtain the seed, and the manner of culture, etc."

The above courteous offer and sensible suggestions deserve consideration, though it is to be hoped that the professional finger-ingers will not take it in hand; for it would be just like them to come forth in their liberal dispensation of ciphers and prove that California would "in the near future" export hundreds of millions of tons of sugar per annum to the Moon. Or, incited by their inveterate hatred of "general principles," they might smother the enterprise in its cradle with statistical tables, conclusively proving by an alarming array of figures that the thing cannot be done.

The Butte Record understands that the grain crop in the upper portions of Shasta valley will not be good this season, owing to the scarcity of water. The hay crop will be good on farms where water can be got to irrigate it, but where it cannot be irrigated it will not amount to much.

The tobacco on the San Felipe ranch, Santa Clara county, is doing finely, and the yield will be very heavy.

POPULAR LECTURES.

Economy of the Vegetable Kingdom.

Sixteenth Lecture Delivered before the University of California College of Agriculture, on Wednesday, February 10th, by Prof. C. E. BESSEY.

(Reported and Illustrated for the RURAL PRESS.)

Transmission of Forms.

It has been advanced by some breeders that the male transmitted certain characters mainly relating to the exterior of the animal, while the female transmitted characters relating to the interior. And there are many cases which seem to admit of such a theory. The color of the cock is usually transmitted to his offspring; the ram transmits his peculiarities of horns and fleece, and the bull the presence or absence of horns. These facts, for such they seem to be, can, however, be explained equally well in another way.

Of Prepotency.

If we cross a number of varieties, we find that instead of the offspring always showing a blending of the characters of both parents, in many cases the young animal or plant more nearly resembles one parent than the other; that is, one parent has transmitted more characters than the other, or has transmitted them with more force.

Thus, when crossing the short-horn bull upon the native cow, the grade offspring is more of a short-horn in its characteristics than it is a native. We say, in this case, that the short-horn bull is prepotent, and to this power of transmission we apply the term prepotency. Now, prepotency may belong to either parent, in fact, it may belong to both parents. The sire may be prepotent, so far as certain characters go, but the dam may be prepotent in other characters. Now, this prepotency tends to give uniformity or fixedness to a race or breed. Darwin makes the observation that in certain families the effect of the prepotency of some ancestor is seen in some distinctive character. He says, "It would appear that in certain families some one ancestor, and after him others in the same family, must have had great power in transmitting their likeness through the male line; for we cannot otherwise understand how the same features should be so often transmitted after marriages with various females, as has been the case with the Austrian emperors, and as formerly occurred in certain Roman families with their mental qualities. The famous bull Favorite is believed to have had a prepotent influence upon the short-horn race. It has always been observed with English racers that certain mares have generally transmitted their own character, whilst other mares of equally pure blood have allowed the character of the sire to prevail." Now, this prepotency may come into action independently of any supposed influence of long breeding—so that it cannot be referred to habit, as some would have it. Some of Darwin's examples are interesting and instructive. In chapter fourteen of his work on the variation of animals and plants, he says: "The truth of the principle of prepotency comes out more clearly when certain races are crossed. The improved short-horn, notwithstanding that the breed is comparatively a modern race, are generally acknowledged to possess great power in impressing their likeness on all other breeds, and it is chiefly in consequence of this power that they are so highly valued. Godine has given a curious case of a goat-like breed of sheep from the Cape of Good Hope, a ram from which produced offspring hardly to be distinguished from himself when crossed with ewes of twelve other breeds; but two of the half-breed ewes, when put to a merino ram, produced lambs closely resembling the merino breed."

Here, in the first place, the goat-like ram was prepotent, but his offspring, when mated with as strong a breed as the merinos, were not able to transmit their characters. It is also on record that of two races of French sheep, the ewes of one, when crossed during successive generations with merino rams, yielded up their characters far sooner than the ewes of the other. In other words, the prepotency of the merino rams was greater in the one case than in the other; which necessitates this conclusion, that prepotency is the excess of the power of trans-

mission which one parent has over the other. It is evident that each parent tends, with a certain force, to transmit its characters, and it will transmit them unless the force is met by one superior to it. It is simply a matching of force against force, the stronger force winning here as elsewhere.

Referring again to the examples given by Darwin. In South America there is a breed of cattle called the *Niata* breed, with certain marked peculiarities. "When these are crossed with common cattle, though the *Niata* breed is prepotent whether males or females are used, yet the prepotency is strongest in the female line. In making reciprocal crosses of *pouter* and *fantail* pigeons, the *pouter* seems to be prepotent, through both sexes, over the *fantail*." These examples will perhaps be sufficient to show that the transmission of peculiar character is due to some power or force in one or the other of the parents, and not that one parent invariably transmits certain characters and the other certain others.

In plants, prepotency holds as fully as in animals. "When *Nicotiana paniculata*, a hardy annual species from Peru (three feet high) and *N. vincoflora*, (a smaller, two feet high, tender perennial species, also from South America) are crossed, the character of *paniculata* is almost completely lost in the hybrid; but if *N. quadrivalvis* (a still smaller, one and one-half feet, North American hardy annual) be crossed with *N. vincoflora*, this latter species, which was so prepotent before, now in its turn almost disappears under the power of *N. quadrivalvis*." In this case, evidently *vincoflora* possesses more of this force of transmission than *paniculata*, hence it is prepotent, but *quadrivalvis*, possessing more of this force, is prepotent over *vincoflora*. It would be interesting to know what would be the result of a cross between *paniculata* and *quadrivalvis*. Another case in plants shows well the prepotency one form may have over another and how this influence may last for a long period of time. Mr. Darwin fertilized a purple sweet pea (*Lathyrus*) with the pollen of the Painted Lady sweet pea. The greater number of hybrids almost exactly resembled the Painted Lady variety and this resemblance continued in grandchildren and great-grandchildren—though the later generations showed more and more of the purple color of the other ancestor.

Interbreeding.

It appears to be a plan of nature, in both the animal and vegetable kingdom, that in fertilization, the sexual cells shall come from different organisms. The various arrangements in orchidaceous plants are the most well-known examples of this, but it is now known that in many other orders of plants simpler, but equally effective means are provided for securing cross-fertilization, and it is the opinion of the best vegetable physiologists that this cross-fertilization is the rule, and that cases of continual or habitual self-fertilization are quite rare. In the higher animals, the individuals are divided into two groups—in the one, the male sexual cells are developed—in the other, the female cells. The result of a fertilization in such a case must always be a sort of cross—each animal possessing its individual peculiarities. In the lower forms, where both kinds of sexual organs are found in the same individual, it might be supposed that no such cross-fertilization existed, but even here it is found that fertilization takes place by the congress of two of these hermaphrodite individuals—each fertilizing the other.

(To be Continued.)

An Economic Success.

Economy—a very near relative to Necessity—was the mother of the invention which has converted straw, heretofore considered almost a waste in the places where it was grown, into an important auxiliary in separating it from its own grain. The advantages gained by the use of straw-burning engines are, we apprehend, not duly appreciated. In grain producing districts generally, straw is an encumbrance on the farm, and wood is an expensive item; but by using the straw-burning engine, the former becomes a valuable material, and the latter is dispensed with, saving the first cost and the labor and expense of hauling, while the risks in regard to fire in the field are less than with wood.

The advantages of straw-burning boilers in running threshing machines have been laid before the readers of the Press on several occasions, and we are pleased to observe evidence of appreciation in other quarters. The Sacramento Record-Union has the following on this subject:

"We believe that the credit of the invention is due to a Californian, and that the first successful experiment in running a thrasher with straw was made in the San Jose valley. Quite a number of these boilers were used successfully, however, in the San Joaquin valley last year, and we are informed that the farmers in that valley will employ no others if straw-burners can be had. The well known importers and dealers in agricultural implements,

A Colorado Lake.

Among the many beautiful views which the photographer accompanying Prof. Hayden's last expedition to Colorado has made it possible for us to admire is one of Upper Twin lake in the Sawatch range of mountains. An engraving on this page gives an idea of the placid loveliness of the lake and its romantic surroundings, as seen by the artist and transferred to paper by the aid of his camera.

The crest of the divide at the head of the south branch of the Little Platte, says Prof. Hayden, presents a fine view of the valley of the Arkansas toward the West, with the grand range of the Sawatch on the west side like a gigantic wall, with its wilderness of peaks, upward of 13,000 and many of them 14,000 feet. Nestled at the base of the Sawatch, at the mouth of the Lake Creek gorge, are the beautiful Twin lakes, separated from each other by a belt of moraine deposit only about 200 yards wide, with a small stream flowing from one to the other, 20 feet wide. The upper lake is one mile in length and half a mile in width. The greatest depth found by sounding was 76 feet.

To the southeast may be seen distinctly the ranges about the San Luis valley, with Ouray and Uncompahgre peaks rising far above all the rest. To the east we have the South Park full in the foreground, looking like an immense meadow. The ridges which run across it in different directions are softened down by the

with the ranges of mountains on either side, shuts off the vision from the broad plains beyond; it rises so far above the rest that it becomes a most important landmark for a radius of fifty or eighty miles in every direction.

To the northeast and west is the splendid group of peaks of which Mount Lincoln is the crowning one; while to the northwest are the sources of the Arkansas with the Tennessee pass and its associated ranges of mountains. The Blue River range can be seen dimly beyond. Such are the geographical features of this remarkable region, and I describe them from time to time, to convey to the reader the fact that the variations are kaleidoscopic, and from every important mountain distance. Pike's peak, peak a fresh and equally grand view may be obtained.

Haying and Harvesting.

Hay making is about over, a good crop has been received and good prices are expected for it. We hear of enormous yields of alfalfa in some instances, and

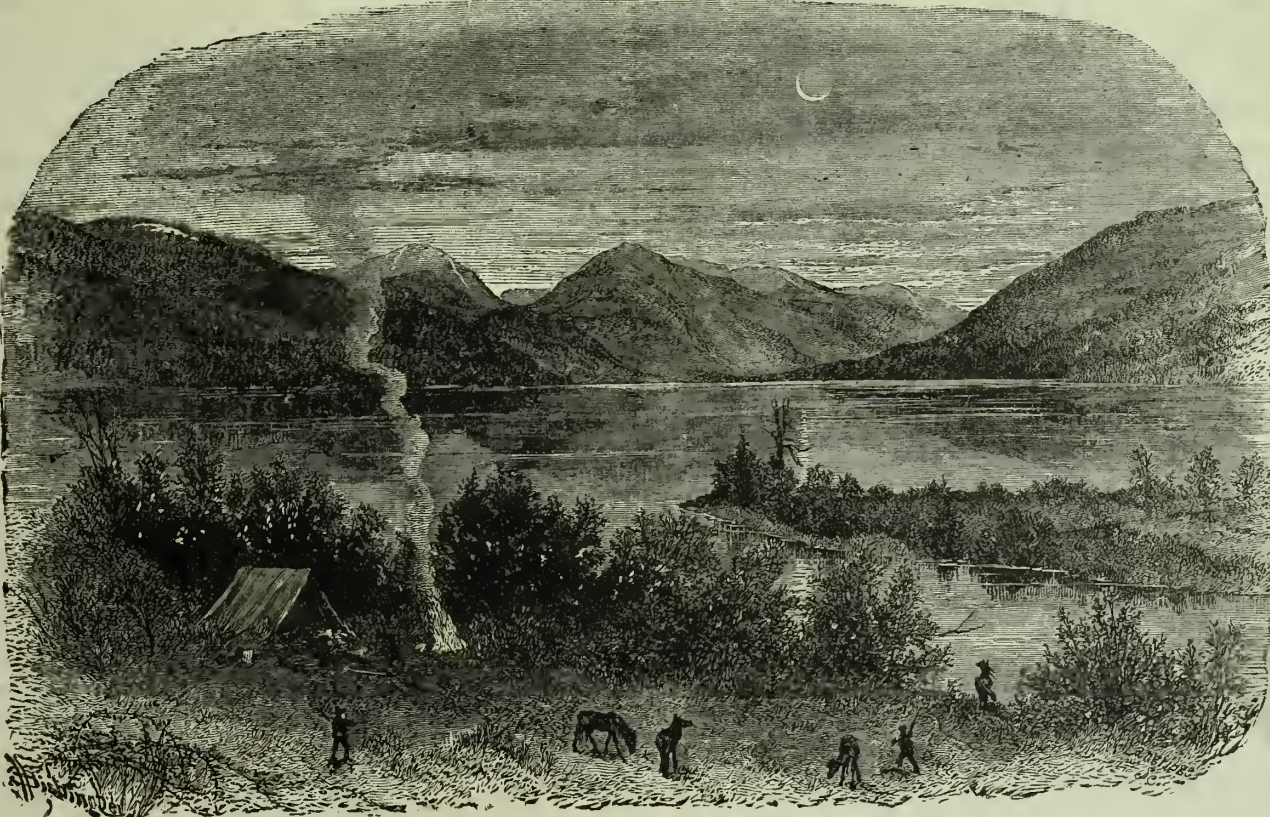
this season has pretty effectually disproved the assertion that this crop must be irrigated in order to make it pay.

The reports from the harvest field are, in a few instances, discouraging. A fierce north wind which prevailed in Colusa and Butte counties during the early part of this week, caused serious damage by shelling out the grain, though according to the latest returns the loss is not as great as at first reported. But the harvest generally is turning out quite as good, if not better, than was anticipated. The advantages of early sowing and thorough cultivation are more apparent than ever. Barley and oats are doing particularly well according to accounts.

We already hear of a scarcity of help in some localities, and it is believed that when the busiest period of the harvest season arrives, all the available help in the country will be needed.

The general aspect of the fruit crop is about the same as last week. Apricots and peaches are, perhaps, less promising, while grapes are apparently doing extremely well, especially where they have been well cultivated. Apples still hold out the promise of a three-quarter crop.

The suspension of the agricultural implement house of Treadwell & Co. is announced. We understand their embarrassments arise from an overstock of harvesting machinery, the sales of which have not met their expectations. Their liabilities are put down at \$575,000. On inquiry at the house we learned that the sales of harvesting machinery and implements are continuing as usual; the firm hoping by pushing sales to be relieved and go on. The heavy stock and backwardness of collections are the cause of the financial embarrassment of the house.



UPPER TWIN LAKE, COLORADO.

Baker & Hamilton, who are always wide awake to the wants of farmers, and as wide awake to supply those wants, have had a large number of these straw-burning engines built by Ames & Co., of Oswego, New York, manufacturers of agricultural implements, expressly for this market. Every one of these engines were fired up and run at the manufacturer's shop before being shipped, and consequently there is no question about their working satisfactorily. The straw-burning boilers are of the return flue pattern, with a large flue in the center and return flues surrounding it, and will burn either straw or wood. We have been thus particular in speaking of this improvement in engines, because it is in the direction of economy to the wheat farmers of California, and because we know that to enable the California farmer to grow wheat and put it into the Liverpool market in competition with Russia and other countries located so much nearer that market, every advantage has to be taken when a point in saving money can be made.

The workmanship on these boilers and engines has every appearance of being of a superior character, and while men inexperienced in burning straw may find some trouble in keeping the flues clear of the ash from straw, and consequently in getting a sufficient draft when first firing up, the application of a little good practical sense and a little patience will overcome all this trouble, and render the straw-burner just as easy to manage as the wood-burner. When we say this we speak from personal observation, having seen one of them in operation."

The Napa Register of the 5th inst. says: We have conversed with a number of farmers during the week upon the subject of the condition of the crops. Nearly all agree that the crop will be a fair average. Some are very fine, and some are a little under what the product should be.

DEWEY & CO.,

American and Foreign

Patent Agents,

No. 224 Sansome St.

SAN FRANCISCO.

Patents Obtained Promptly.
Caveats Filed Expeditiously.
Patent Reissues Taken Out.
Patents Secured in Foreign Lands.
Assignments Made and Recorded in Legal Form.
Copies of Patents and Assignments Procured.
Examinations of Patents made here and a
Washington.
Examinations made of Assignments Recorded
in Washington.
Examinations Ordered and Reported by TEL-
GRAPE.
Interferences Prosecuted.
Opinions Rendered regarding the Validity of
Patents and Assignments.
Rejected Cases taken up and Patents Obtained
Every Legitimate Branch of Patent Agency Bus-
ness promptly and thoroughly conducted.
SEND FOR CIRCULAR.

Tenth Industrial Exhibition of the

Mechanics' Institute,

S. F., 1875.

PRELIMINARY ANNOUNCEMENT.

The Board of Managers of the Tenth Industrial Ex-
hibition have the pleasure of announcing that an
Industrial Exhibition will be held, under the auspices
of the Mechanics' Institute, in the city of San Francisco,
to be opened on Tuesday, the 17th of August, 1875, at
11 A. M., and to continue open at least one month
hereafter.

In making this public announcement, the Managers
desire that those who intend to exhibit should send in
their applications for space as early as possible, so as
to avoid the necessity of excluding, as has been the
case heretofore, the many desirable exhibitors who are
unusually tardy in making applications.

The forthcoming Industrial Exhibition will be the
tenth held under the auspices of the Mechanics' Insti-
tute, and the Managers are justified in saying that it
will undoubtedly surpass in completeness of detail
and general arrangement any heretofore held.

The last Exhibition was attended by 700,000 visitors,
attracted hither by the fame of these Industrial Fairs,
and for the purpose of investigation, business and
pleasure.

All the available exhibiting space was applied for
several weeks before the day of opening, and the Man-
agers were compelled to deny admission to many de-
sirable exhibitors.

The Board of Managers desire particularly that the
arts, the industries and natural products of the coun-
try should be well represented at the forthcoming ex-
hibition, and no pains will be spared to make these
classes of exhibits a special feature there.

The Exhibition will be held in the building con-
structed for that purpose in 1874, but it will be ma-
terially enlarged and improved in many details for the
Exhibition of 1875.

The space under roof will exceed 180,000 square feet,
or about four and a half acres, exclusive of the Horti-
cultural Garden, which will occupy 24,500 square feet
additional.

The location of the Exhibition Building, on Eighth
street, between Market and Mission streets, cannot be
surpassed for convenience and accessibility, and can be
approached from every part of the city by means of the
various lines of street railroads, any of which bring
visitors within two blocks of the entrance gate.

The utmost care has been exercised in providing for
ample ventilation and light, and during the evening the
building is brilliantly illuminated by over 5,000 gas
lights.

The promenade avenues are broad, and 3,000 seats
are provided for the comfort of visitors, for whose con-
venience there is also an excellent restaurant, under
the management of a first-class restaurateur.

Every afternoon and evening the best orchestra the
city can supply will discourse excellent music under
the direction of an accomplished leader.

The building is always well attended by visitors, and
during the last Exhibition over 29,000 were daily ad-
mitted for a number of days, and under no similar cir-
cumstances can the manufacturer, the mechanic, the
inventor, producer or business man so advantageously
place himself before the people of the Pacific Coast.

Persons desiring to obtain information, or to make
application for space, should address "Managers of
Tenth Industrial Exhibition, San Francisco, California,"
or make personal application as below.

It is expected that the various transportation com-
panies will convey goods intended in good faith for
exhibition, at half the usual rates.

Exhibitors from abroad, if they have no agent or
consignee in San Francisco, can consign goods and
mark the same to the "Manager of the Tenth Indus-
trial Exhibition, 17 Post street, San Francisco," and
they will be stored, if they arrive before the day of
opening, free of expense; but no charges or expenses
for freight or forwarding, etc., will be paid by the
managers.

In order to secure space, application should be made
on or before July 20th, 1875.

Blankets will be furnished on application.
Premiums will be awarded as follows, viz: 16 gold
medals, 50 silver medals, Society Diplomas, Certificates
of Merit and Special Premiums, as the Board may deter-
mine.

Blankets for space can be obtained at the Mechanics'
Institute on application by letter or otherwise; and any
information will be given, by applying to any member
of the Board of Managers, as below:

A. S. HALLIDIE.....113 Pine street.
JAMES C. PATRICK.....122 Battery street.
HENRY L. DAVIS.....421 California street.
D. E. HATES.....213 Fremont street.
ASA R. WALLS.....Mechanics' Mill.
P. B. CORNWALL.....Cor. Spear & Harrison streets.
CHAS. ELLIOT.....516 California street.
GEORGE PAULINO.....414 Clay street.
RICHARD SAYAOE.....139 Fremont street.
W. P. STOUT.....604 Merchant street.
J. H. MACDONALD.....217 Spear street.
J. P. CURTIS.....320 Jackson street.
R. B. WOODWARD.....Woodward's Gardens.
JAMES SPIERS.....311 Howard street.

To the Librarian of the Mechanics' Institute, or to
J. H. CULVER, Secretary, 27 Post street, San Fran-
cisco.

Rules and Regulations of the Tenth

Industrial Exhibition, Mechanics'

Institute, S. F., 1875.

1. The Pavilion will be open for the reception of
goods on Monday, August 2d. The exhibition will be
open to the public on Tuesday, August 17th, at 11
o'clock A. M.

2. Applications for space must be made on or before
July 20th, stating character of exhibit, amount and
kind of space required—wall, table or floor. And, if
cases, state length, width and height of case. Blanks
will be furnished for this purpose, and a clerk will be
in attendance at the Library of the Mechanics' Insti-
tute, every day from 12 to 1, and 7 to 10 P. M.

3. All persons presenting articles for exhibition
must have them registered by the Receiving Clerk, who
will give a receipt for the same, which receipt must be
presented when the articles are withdrawn, at the close
of the Exhibition.

4. Judges will be appointed by the Board of Man-
agers, immediately upon the opening of the Exhibition,
to examine all articles presented, in accordance with
Article III, and the Managers will award premiums on
such articles as the judges shall declare are worthy,
which will be delivered as soon as they can be pre-
pared. Due notice will be given of the announcement
of premiums.

5. The mornings of each day, until 10 o'clock, will
be appropriated to the Judges, and no visitors will be
admitted during the time thus appropriated, except at
the special request of the Judges, or by permission of
the Managers.

6. Articles intended for sale may be labeled accord-
ingly, but cannot be removed until the close of the
Exhibition, except by written permission of the Man-
agers.

7. Steam power will be provided, so that machinery
of all kinds may be seen in actual operation, and every
facility possible will be given to exhibit working ma-
chinery to the best advantage.

8. The name of every article must be attached by the
exhibitor to it.

9. Articles intended for exhibition must be entered
and placed on exhibition on or before Saturday,
August 21st.

10. Perishable articles will be received, or may be
removed at any time during the exhibition, with the
consent of the Managers.

11. The most effectual means will be taken, through
the agency of the Police and otherwise, to guard and
protect the property on exhibition; and it will be the
purpose of the managers that all articles shall be re-
turned to the owners without loss or injury. Still, all
articles deposited will be at the risk of the owners.

12. In case of any misunderstanding, application
may be made to the Managers, who will at all times be
in attendance.

13. The Managers are desirous that articles should
be presented early. Those from abroad, intended for
exhibition, should be properly packed, and if not con-
signed to exhibitor's agent, must be marked, "MAN-
AGERS OF TENTH INDUSTRIAL EXHIBITION, SAN FRANCISCO,
CAL." All articles thus received, arriving too early,
will be stored free of cost to the exhibitor, and the
Managers will have them duly placed in proper position
for exhibition. No freight charges will be paid by the
Managers; but exhibitors are notified that arrange-
ments are being made with various transportation com-
panies to repay freight charges on evidence of goods
exhibited.

Information will be furnished by addressing MAN-
AGERS OF TENTH INDUSTRIAL EXHIBITION, SAN FRAN-
CISCO, CAL.

BREEDERS' DIRECTORY.

PURCHASERS OF STOCK WILL FIND IN THIS DIRECTORY
THE NAMES OF SOME OF THE MOST RELIABLE BREEDERS.
OUR RATE—Six lines or less inserted in this directory at
50 cts a line per month, payable quarterly.

CATTLE.

R. ASHBURNER, Baden Station, San Mateo Co.,
Cal., breeder of Short-horn cattle. Pure Bred Bulls
for sale, from cows of choice milking strains.

J. BREWSTER, Galt Station, Sacramento Co.,
Cal., breeder of Short-Horn Cattle.

J. D. CARR, Gabilan, Monterey Co., Cal., breeder
of Trotting Horses, Short-Horn Cattle, Thoroughbred
Spanish Marino Sheep and Swine.

A. MAILLARD, San Rafael, Marin Co., Cal.,
breeder of Jerseys. Calves for sale.

W. L. OVERHISER, Stockton, San Joaquin Co.,
Cal., breeder of Short-Horn Cattle and Berkshire
Swine.

PAGE BROTHERS, 304 Davis street, San Fran-
cisco, (or Cotate Ranch, near Petaluma, Sonoma Co.):
Breeder of Short-Horns and their Grades.

STANTON & POWERS, Sacramento, Cal.
Breeder of Jersey Heifers and Bull Calves at low
rates. Address L. C. Powers, Sacramento, Cal.

MOSES WICK, Oroville, Butte Co., Cal., breeder
of Short-Horn Cattle. Young bulls for sale.

SHEEP AND GOATS.

H. F. BUCKLEY, Hopeton, Cal. Thoroughbred
also 1/2 and 3/4 Cotswold grade sheep.

MRS. ROBERT BLACOW, Centerville, near
Niles Station, Alameda Co., Cal. Pure-Blooded
French Merino Sheep for sale.

N. GILMORE, El Dorado, El Dorado Co., Cal., im-
porter and breeder of Angora Goats.

LANDRUM & RODGERS, Watsonville, Santa
Cruz County. Pure-Bred Angora Goats and Cotswold
Sheep for sale.

SEVERANCE & PEET, Niles, Alameda Co.,
Cal., breeders of Thoroughbred Spanish Merino
Sheep.

A. G. STONESIFER, Hill's Ferry, Stanislaus Co.,
Cal., breeder of Pure-Blooded French Merino Sheep.

L. U. SHIPPEE, Stockton, Cal. Importer and
Breeder of Spanish Merino Sheep, Durham Cattle
and Essex Swine.

POULTRY.

GEO. B. BAYLEY, Cor. 16th and Castro streets,
Oakland, Cal. Imported Brahmas and other choice
Fowls for sale.

ALBERT E. BURBANK, 43 and 44 California
Market, San Francisco, importer and breeder of
Fancy Fowls, Pigeons, Rabbits, etc.

M. EYRE, Napa. Bronze Turkeys, Emdon Geese,
Choice Fowls, Pigeons, Rabbits, Ferrets.

WILLIAM KNOWLES, Brooklyn, Alameda Co.,
Cal. has for sale Eggs for Hatching, carefully
packed, from pure-bred Bronze Turkeys, at \$7.50 per
dozen; Brown Leghorns at \$4.00 per dozen; Houdans,
White Leghorns and Buff Cochins at \$3.00 per dozen;
two dozen for \$5.00. Sent C. O. D. to any address.

Mrs. L. J. WATKINS, Santa Clara. Fremont
Fowls. White Leghorn, S. S. Hamburg, Game Ban-
tams, and Aylesbury Ducks. Also, Eggs. 2178-St

Live Stock Notices.



Pure Blooded French Merino Rams

For sale by MRS. ROBERT BLACOW, of Centerville,
Alameda County, Cal., near Niles Station, on the West-
ern and Southern Pacific Railroad.

These Sheep are guaranteed of pure descent, from the
French Imperial Flock at Rambouillet, and are equal,
if not superior, to any of this breed in size and quality
of wool, and are proved to be the heaviest shearers in
the world.

GABILAN HERD

SPANISH MERINO SHEEP.

I have just purchased of Mr. George Hammond, of
Vermont, three car-loads of Spanish Merino Sheep,
(335 head, Ewes and Bucks)

which, with others that I
purchased last Fall, (also
direct from Vermont)
makes my band of Thor-
oughbred Spanish Merinos
about 650 head.

I am prepared to sell
both Bucks and Ewes, of Pure Blooded Spanish Merinos
—as good as can be had in the world—so says Mr.
Hammond. Parties interested will please give me a
call. I am ten miles from Salinas City, Gabilan P. O.,
Monterey county.

J. D. CARR.

N. B.—I have also Good Graded Bucks for sale, and
can dispose of some Good Graded Ewes. J. D. C.

E. W. WOOLSEY,

BREEDER OF



Thoroughbred Spanish Merino Sheep,

From Vermont Premium Stock,

At Berkeley, Alameda County. Horse cars every half
hour from Broadway Station, Oakland.

CITY OFFICE, 418 CALIFORNIA STREET, S. F.

JUST ARRIVED FROM THE EAST,
Fifty Head of
Choice Spanish Merino Ewes,
Thoroughbred.

MAY BE SEEN AT SWEENEY'S STOCK YARDS,
Cor. Tenth and Howard Streets.

These Ewes are in lamb, and of the best stock pro-
duced in Addison County, Vermont. The owner has
also one Ram remarkable for fineness, who is half
brother to Big Leg, recently sold by Messrs. Sovereign
& Peet, of this State, for \$1,400. As an assurance that
these Sheep are what I claim them to be, I refer parties
interested to CHRISTY & WISE, No. 407 Front Street,
San Francisco.

F. E. BENTON.

Thoroughbred Spanish Merinos

FOR SALE.

60 one and two-year old Thoroughbred Spanish
Merino Rams, California bred, from Ewes imported
from Vermont, and sired by Severance & Peet's Cele-
brated Ram "Fremont," and by their Ram "Green
Mountain," which took the first premiums at the Bay
District and State Fairs. Last shearing—35 1/2 lbs—
years' growth.

Also, about 100 Ewe and Ram Lambs, all of "Green
Mountain" Stock, bred this year.

B. F. WATKINS,
Santa Clara, Cal.

12 Short-Horn Bulls,

fat and sleek, thoroughbred, just from
Kentucky, at SAXE'S Stables, 35 Ritch Street, between
Folsom and Harrison, two blocks from Grand
Hotel. Inquire at SAXE'S Stables, or Room 32 Rues
House. 379-8m

Union Box Factory,

GEO. W. SWAN & CO.,

115 and 116 Spear St., bet. Mission & Howard
SAN FRANCISCO.

Apple, Pear, Plum, Peach, Cherry, Grape,
Orange, Lime and Wine Cases.
Tomato, Potato, Fig and Raisin Boxes.
Strawberry, Raspberry and Blackberry Chests
and Drawers, and Baskets for all kinds of Berries.
Peach and Picking Baskets, Butter Chests and
Boxes, Cheese Boxes, Square and Round Egg Carriers.
Drums for Figs, Cherries, Raisins, and for
other Dried Fruits.
Free Packages—Boxes not to be returned—a
good article, costing less than Sawed Boxes.
Lard Caddies, Coffee and Fruit Caddies.
Turkey and Chicken Coops, Bee-Hives, Etc.
Packing Boxes for Dry-Goods, Cigars, Can-
dies, Candied Fruits, Honey, Macaroni, Crackers,
Sugar, Soap, Boots, Etc.
In fact, every style of Boxes manufactured in
the Union, and turned out in the Best Style at Favor-
able Prices. Orders from the country well attended to

A NEW DISCOVERY

To Save Time and Labor.

The Magical Effect of

ENGWER'S PURE BORAX SOAP

Is wonderful. Washes without much rubbing. Every
one knows the value of

AMMONIA and BORAX

For Washing Purposes;

This Borax Soap is principally composed of the com-
bination of the two ingredients, so that it entirely does
away with hard labor. A trial will convince any one
of its superior qualities. Warranted to give satisfaction
and not to injure the finest fabric. Ask your Grocer
for

Engwer's Pure Borax Soap.

IF HE DOES NOT HAVE IT, ASK HIM TO GET IT.

GRANGER SOAP.

Once Used, Always Used.

Manufactured by

FALKINBURGH & CO.,

Oregon Street, near Front, San Francisco, Cal



COOLING, REFRESHING, AND
INVIGORATING ARE THE
EFFECTS OF
ROWLANDS' KALYDOR

On the face and skin of all exposed
to the scorching rays of the sun
and heated particles of dust. It
eradicates Freckles, Sunburns,
Tan, and all Cutaneous Eruptions,
and produces a beautiful and de-
licate complexion. In cases of
stings of insects it is of the great-
est value. Sold everywhere by
all chemists, druggists, and patent
medicine dealers.

Ask for Rowlands' Kalydor, of
20, Hatton Garden, London, and
avoid imitations.

SAN FRANCISCO

EMPLOYMENT OFFICE,

CROSSETT & CO., Prop'rs,

623 and 625 Clay Street, S. F.

COUNTRY ORDERS for MEN almost invariably
filled, and with FIRST-CLASS HELP.

German, French, American and Scandinavian
help, a specialty.

Farmers will secure men in any number desired,
especially by giving a little timely notice. Hotels can
always get the best of MALE or FEMALE HELP. We
have the BEST OF FACILITIES FOR PROCURING
DESIRABLE HELP. Send us your orders and we will
endeavor to give you satisfaction in every particular at
all times.

Farmers and Threshers

WISHING TO HAVE

Straw Burning Engines

For next season must engage them soon, as most of
those now building are already sold. Threshing En-
gines for Repairs should be sent in now. A number of
Second-hand Engines—taken in exchange for "Straw
Burners"—for sale cheap. For particulars and prices,
address: H. W. RICE,
2378-3m Haywood, Alameda County.

CARD.

EXCELSIOR FORCE PUMP

greatly improved. COPPER LINED
BRASS VALVES AND VALVE SEATS
every way equal to a BRASS
PUMP. PRICES reduced. Send
for Circular. BRITTAN, HOL-
BROOK & CO., Agents.

PACIFIC RURAL PRESS,

A first-class 16-page Agricultural Home Journal, Allied
with fresh, valuable and interesting reading. Every
farmer and ruralist should take it. It is im-
mensely popular. Subscription, \$4 a year.

DEWEY & CO., Publishers,
No. 224 Sansome street, SAN FRANCISCO.

California Farmers Mutual Fire Insurance Association.

Office, 6 Leidesdorff St., - San Francisco.

Directors:

A. WOLF, A. W. THOMPSON, I. C. STEELE,
I. G. GARDNER, J. C. MERRYFIELD, J. D. BLANCHAR,
G. P. KELLOGG, Treas.

Finance Committee:

I. G. GARDNER, J. C. MERRYFIELD, A. W. THOMPSON

Trustees:

J. M. HAMILTON, Lake Col. O. STEELE, San Mateo Co
J. C. MERRYFIELD, Solano Co. A. B. NALLEY, Sonoma Co
G. W. COLBY, - Butte Co. O. S. ABBOTT, S'ta Bar's Co
H. B. JOLLEY, - Merced Co. A. W. THOMPSON, Sonoma Co
A. WOLF, San Joaquin Co. E. W. STEELE, S.L. Obispo Co
J. D. BLANCHAR, Pres't. W. H. BAXTER, Sec'y.

This association is organized for the purpose of affording the farmers of this State the means of safely insuring against loss by fire, at actual cost of insurance, without being connected with city risks. a322-tf

Grangers' Bank of California.

(Incorporated April 27th, 1874.)

Offices, 415 California street, San Francisco.

CAPITAL authorized, \$5,000,000, in 50,000 shares of \$100 each. Subscribed, \$2,568,700. (Number of shareholders, 1,571). Paid up, \$481,200.

DIRECTORS—J. V. WEBSTER, President; CALVIN J. CRESSEY, Vice-President; O. S. ABBOTT, J. P. CHRISMAN, G. W. COLBY, J. H. HILL, J. LEWELLYN, THOS. McCONNELL, J. C. MERRYFIELD, A. F. WALCOTT, F. J. WOODWARD.

OFFICERS—Managing Director, CALVIN J. CRESSEY; Cashier, ALEXANDER WATSON; Secretary, FRANK A. CRESSEY.

The bank was opened on the 1st of August, 1874, for the purpose of affording additional banking facilities to the producers of the State, and for the transaction of ordinary banking business.

CURRENT ACCOUNTS are opened and conducted in the usual way, and interest allowed on the minimum monthly balance at the rate of three per cent. per annum.

CERTIFICATES OF DEPOSIT are issued in sums of \$50 and upwards, payable on 30 days' notice of withdrawal, bearing interest at rates varying with the current rate of discount.

TERM DEPOSITS are received in gold, silver or currency, and interest allowed as follows, namely: Three months, six per cent. per annum; six months, seven per cent. per annum; one year, eight per cent. per annum.

COLLECTIONS are made throughout the State on the most favorable terms.

DISCOUNTS—The bank advances on real estate in the different counties, on merchandise and grain in warehouse, etc., with a fair margin, charging a uniform rate of one per cent. per month. Discount days, Tuesday and Friday.

ALEXANDER WATSON, Cashier.

LEVI, STRAUSS & CO.,

Patent Riveted

Clothing,

14 & 16 Battery St.,

San Francisco.



Patented May 12, 1873.

USE NO OTHER, AND INQUIRE FOR THESE GOODS ONLY. eow-hp

The National Gold Medal

WAS AWARDED TO

BRADLEY & RULOFSON

FOR THE

BEST PHOTOGRAPHS

IN THE

UNITED STATES,

AND THE

VIENNA MEDAL

FOR THE BEST IN THE WORLD.

No. 429 Montgomery Street,

eowbp

San Francisco, Cal.

FARM HANDS.

The Grangers' Scandinavian American Employment Office

Has been removed from 6 Leidesdorff to 608 Olay street, and Consolidated with the Pacific Coast Employment Office. This office is in constant communication with Grange Headquarters, and is the only one in the city conducted by members of the Order. Our facilities for furnishing MALE and FEMALE help of all kinds are unexcelled by any office in the city. Great care taken to select reliable help. Chinese Orders for Servants, in door and out, promptly filled.

In ordering help, be particular in describing work, wages, fare, etc., Real Estate and General Business Agency.

PHILIPS & FLIGGLE.

The Employment Office of Talbot & Co. has no connection whatever with the Granges.

I. G. GARDNER.

PUMPS.

"PEOPLE'S PUMP."

THE FARMERS' FRIEND.

BEST IN USE FOR HOUSE AND STOCK PURPOSES. CAN

BE USED WITH HOSE FOR WASHING

WAGONS, WINDOWS, AND

WETTING GROUNDS.

SEND FOR CIRCULAR.

DUNHAM, CARRIGAN, & CO.,

Successors to

Conroy, O'Connor & Co.,

eow

San Francisco

THE CALIFORNIA STANDARD BURLAP SACK COMPANY OF SAN FRANCISCO,

Now offer for sale their GRAIN BAGS, 22x36 and 20x36, sewed by Machinery with the best of Flax Twine, warranted not to rip in filling, the stitch being the same as the Dundee hand-sewed Sack. The sewing has been examined by good judges, and pronounced superior to any other.

SAMPLES SENT ON APPLICATION AT THE

Factory, No. 36 Clay Street.

A. J. GOVE, Superintendent.

For Sale in Quantities to Suit by

I. FRIEDLANDER,

Cor. California and Battery Sts.,

SAN FRANCISCO, CAL.

The attention of Wool Growers is continually invited to the

Thoroughbred Stock Bred and Kept on the MERINO RANCH,

Situated at Niles, Alameda County, Cal., only five minutes walk from the station, junction of San Jose and O. P. R. R. Parties desiring to visit our ranch can leave San Francisco at 3 o'clock P. M., and have an hour at the ranch, returning on Overland train at 6 P. M. Or coming out in morning, can return to city at 11 o'clock A. M. The proprietors make the

THOROUGHbred SPANISH MERINO SHEEP A SPECIALTY,

Believing them to be the BEST SHEEP IN THE WORLD, and are constantly receiving fresh importations from Addison County, Vermont.

Our flock are all Imported Sheep, and have no superiors in the United States. We always have on hand choice young RAMS and EWES, of all ages, for sale at Reasonable Prices, giving time, if required, to responsible parties. City Office—315 California Street, San Francisco.

SEVERANCE & PEET,

Importers and Breeders of Spanish Merino Sheep.

10v7-eow

DAVID WOERNER,



COOPER,

No. 104 and 112 Spear St., San Francisco.

Wine Casks, Tanks, Tubs, Pipes, Beer Barrels, etc., Manufactured at Short Notice and LOW RATES.

LUMBER for CASKS, etc., TANKS, etc. Steamed and Dried if required. eow-bp.

J. M. NEVILLE.

G. H. BRYANT.

NEVILLE & CO'S FACTORY

113 Clay and 114 Commercial Sts.,

SAN FRANCISCO.

BAGS of All Kinds,

TENTS, All Sizes and Descriptions.

HOSE for Hydraulic Use.

CANVAS, All Numbers.

TWINE for Sewing, Etc.

FOR SALE

In the Riverside, New England and Santa Ana Colonies, in the valley of the Santa Ana river, San Bernardino county, California, twenty thousand (20,000) acres of clean, rich, level, valley land, with an abundance of water for irrigation. There is no better land in the State for the orange and all other semi-tropical fruits, and no finer climate in the world. Inquire of W. T. SAYWARD, 420 Montgomery street, San Francisco; S. C. EVANS, Fort Wayne, Indiana; C. I. HUTCHINSON, 314 California street, San Francisco; L. UPSON, General Agent, Riverside, San Bernardino county, Cal.

IRRIGATED LANDS.

Sure Crops and Large Yields—Water Communication with San Francisco and Cheap Freights.

WILL SELL

Three (3) Tracts of Land on Staten Island. The Jersey Tract, 4,000 acres, on San Joaquin River. The Bradford Tract, 2,230 acres, on San Joaquin River. Also, offer other Tracts of Land in tracts to suit purchasers.

These are the most desirable grazing and farm lands in the State. Partly cultivated, improved and easy of access.

L. C. McAFEE, Real Estate Agent,
411 1/2 California street, Room 4, S. F.

Office of Drain Pipe Works,

S. W. Corner Sacramento and Montgomery Sts., S. F.

DRAINS

CONSTRUCTED

In any part of the State, and

Work Warranted

E. T. MENOMY

Proprietor.

bp-eow-1 yr

LAND PLASTER.

(Sulphate of Lime.)

This fertilizer is especially well adapted to California lands and climate, and is destined to be used to immense advantage.

PRICES GREATLY REDUCED.

In bulk, \$10 per ton; in barrels or bags, \$12.50.

Golden Gate Plaster Mills.

LUCAS GESNER & CO.,

215 and 217 MAIN STREET, SAN FRANCISCO.

Commission Merchants.

H. K. CUMMINGS.
1858.

H. E. BALSTON.
1875.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission House,

ESTABLISHED 1858.

No. 424 Battery street, southeast corner of Washington, San Francisco.

Our business being exclusively Commission, we have no interests that will conflict with those of the producer. 4v23-1r

MOODY & FARISH,

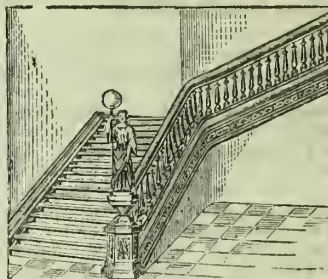
Wool Commission Merchants,

No. 210 Davis Street, S. F.

Eureka Glycerine and Carbolic Sheep Dip; Sheep Shears; Wool Sacks and Twine constantly on hand at low prices.

Davis & Sutton, Commission Merchants, For California Fruits; also for the sale of Butter, Eggs, Cheese, Hops, Green and Dried Fruits, etc., 75 Warren street, New York. Refer to Anthony Halsey, Cashier, Tradesmen's National Bank, N. Y.; Ellwanger & Barry, Rochester, N. Y.; O. W. Reed, Sacramento, Cal.; A. Lusk & Co., Pacific Fruit Market, San Francisco, Cal.

SANBORN & BYRNES,



Mechanics' Mills, Mission Street.

Between First and Fremont, San Francisco. Orders from the country promptly attended to. All kinds of Stair Material furnished to order. Wood and Ivory Turners. Billiard Balls and Ten Pins, Fancy Newsels and Balusters. 25v8-8m-bp

THE CELEBRATED

H. H. H.

HORSE MEDICINE

IS STILL AHEAD OF ALL OTHERS.

The Wholesale Druggists of San Francisco, give evidence of its appreciation throughout the State, by and rapidly increasing orders. We pledge it a cure for SPRAINS, WIND GALLS,

SWEENY, SCRATCHES,

LAME AND STIFF JOINTS,

CALLONS, LUMPS,

AND ALL BLEMISHES,

SPRAINS OR BRUISES.

It is a household blessing and no family should be without a bottle in the house. For sale everywhere.

WILLIAMS & MOORE, Prop's.,

25v8-6m

Stockton, Cal

CHARLES CLAYTON & CO.,

Commission Merchants

—IN—

GRAIN,

FLOUR

and WOOL,

N. E. COR. FRONT & CLAY STREETS,

SAN FRANCISCO.

Hooper's South End Grain Warehouse,

Japan and Townsend Streets.

SAN FRANCISCO, July, 1874. I beg to inform you I have leased the above first-class Fire-Proof Brick Warehouse, now being erected by Geo. F. Hooper, Esq., and will be ready to receive storage on the 1st of August. This warehouse offers superior inducements to parties desiring to store grain and flour, as it is situated on the Water Front, and on the line of the O. P. R. R. and S. P. R. R. It is well ventilated, rat proof, and combines all the modern advantages and improvements. Yours respectfully, JOHN JENNINGS. Advances and insurance effected at the lowest rates. Storage taken at lowest current rates. 4v8-ft

SUPPORT HOME INDUSTRY.

WHEATEN STARCH,

MANUFACTURED BY

J. JOHNSTON,

SAN JOSE, - - - - - CALIFORNIA.

This starch is made from the best of wheat, and is used by the laundries and hotels, who pronounce it Superior in Strength and Fine Satin Gloss to any imported starch—one pound being equal to one and a half pounds of Eastern starch.

FARMERS' UNION.

SUCCESSOR TO A. PFISTER & Co.,

Cor. Second and Santa Clara Sts., San Jose.

CAPITAL, - - - - - \$100,000.

WM. ERKSON, - - - - - PRESIDENT

H. E. HILLS, - - - - - MANAGER

Directors.—Wm. Erkson, L. F. Chipman, Horace Little

J. P. Dudley, David Campbell, James Singleton, Thomas

E. Snel I. C. T. Nettie, E. A. Bradley.

Will do a General Mer antile Business, also receive Deposits, on which such interest will be allowed as may be agreed upon, and make Loans upon approved security.

AGRICULTURAL NOTES.

California.

ALAMEDA.

THE HARVEST PROSPECT.—Livermore Enterprise, June 5: In conversation with some of our farmers from a distance we learn that the grain fields are looking remarkably well. To the north and west a full crop will be harvested by all who have late sown grain; to the south a two-third yield will be gathered, and on the eastern side of the valley not less than half a crop will be the result. The foothills will produce far better than the valley land in many places.

BUTTE.

WHEAT THRESHED OUT BY THE WIND.—Oroville Mercury, June 5: The north wind that blew so fiercely on Monday and Tuesday of the present week, shelled out more grain than the ranchers at first supposed it had. In fields where it had ripened and the stalks became dry, the heads were easily broken off, and the fields present almost as clean an appearance as though a header had passed over the ground. W. W. Stone, of Biggs' station, and Sheriff Daniels say that fully 25 per cent. of the wheat was shelled out by the wind of Sunday, Monday and Tuesday. They have been over quite a portion of the wheat-growing country, and have heard from other parts of it, and the same story comes from every grain field.

COLUSA.

A MEMORABLE DAY.—Sun, June 5: More damage was done on Wednesday, of last week, to the farmers of the State, than was ever done on a single day since farming began here. We get particulars from all parts of this county of immense damage to grain fields. In some fields the grain was threshed almost as clean as if it had been through a machine. The wind came, too, at the very worst time. The grain was just ripe, and was easier threshed than when the hull becomes thoroughly dried, and it was so early that but little had been cut. The damage in this county alone could not have been short of half a million dollars. Even the club wheat, which is the hardest to shell, was in places considerably damaged. During our twenty-five years' residence in this valley we do not remember to have seen such a wind.

CONTRA COSTA.

A FAVORABLE MONTH.—With moderately warm weather the maturing of grain has been somewhat hastened during the past two weeks, and there are some fields of wheat now ready for the reaper. In no previous season has the month of May been so favorable to the growing grain crops as has this which has just passed; and, indeed, since early in April there has scarcely been a day when the weather has not been good to the grain. We consequently now expect a good yield of plump, clean wheat; and the barley is already past chance of harm.

GOOD POTATO CROP.—From same: Mr. James C. McHarry, of Rodeo valley, has favored this office with a sample of a six acre crop of "Early Rose" potatoes, that he is now gathering and shipping to San Francisco. Though planted in March, these potatoes are now fully matured, of good size, mealy texture when cooked, and fine flavor.

EL DORADO.

GOOD RETURNS FROM GOOD CULTIVATION.—Cor. Mountain Democrat, June 5: "Veritas" says in his trip through the country surrounding Granite hill he has seen as good fields of wheat, oats and barley as at any time for the last twenty years. On the other hand he saw fields of grain that would not pay for cutting. He reports that F. Veerkamp has the finest kind of wheat, oats and barley, he having sowed his grain early on summer fallowed land. He has just harvested upward of thirty tons of good barley hay from 2,300 pounds of seed. He expects his oats to yield three quarters of a ton per acre, if not more. His wheat looks fine, and he expects to thresh from eighteen to twenty bushels per acre. Baker Miller, near Cold Springs, has also an excellent crop of wheat and rye. There is also a splendid crop on the farm of Daniel Miller. All of his observations and inquiries convince our correspondent that in every case where the land has been well cultivated and seeded early, a large average crop will reward the cultivator.

THE FRUIT CROP.—From same: He reports the fruit crop as a very poor average. At least ninety per cent. of the peaches, plums and apricots were killed by the last frost. Of apples there will be fully half a crop. Grapes never looked more promising than at present, and yet some vineyards will not produce half a crop, which is wholly due to want of cultivation. Our correspondent says that this is the first year since fruit has been raised in that section that there has been a failure of the peach crop. The plum known as the "Bradshaw" has escaped any injury by the frost. It seems that early apples, such as the Astrachan and Red June, have been less injured than later varieties.

KERN.

FERTILE SOIL.—Southern Californian, June 3: The barley of the fields near town has been harvested and water is being turned on for a crop of corn. The harvest has been mostly of hay. What grain has been allowed to ripen will exceed fifty bushels to the acre.

LAKE.

IN FINE CONDITION.—Cor. of the Bee, June 3: By a recent ride through the country in the direction of Upper lake, Witter springs and

Blue lakes, we had an opportunity to see the crops, which we must say are in a very fine condition.

MARIN.

A LARGE FRUIT RANCH.—San Rafael Journal, June 3: Messrs. Sweetzer & DeLong, of Novato, have a fruit orchard of 200 acres, included in which is the largest apple orchard in the State. They will sell \$1,000 worth of cherries this year. The grape crop (they have twelve acres of grapes) will be very heavy this year, the vines being uniformly full of large clusters.

PLACER.

BETTER THAN AN AVERAGE.—Herald, June 5: Two weeks ago, in speaking of the grain crop in the western portion of Placer, we estimated the crop at about three-fifths of an average crop. One of the most extensive farmers in that part tells us that our estimate was fair when it was made; but the grain has improved so much up to the day of ripening that he is confident now the yield will reach an average, and that the crops are in all respects better than last year. He says his early grain is good—better than an average.

SAN BENITO.

HOLLISTER ENTERPRISE. June 5: Mr. Snibley, living six miles from town, has over 400 acres sown to wheat, and judging from its present prospects it will average eighteen sacks to the acre—or in the neighborhood of forty bushels. It is certainly the finest looking wheat that we have yet seen—the heads being large and full. When we come to consider the fact that this field of grain has never been irrigated, and that the season has been devoid of its usual rain, it is not only remarkable, but an unanswerable argument in favor of this portion of the country as a grain growing district.

SAN DIEGO.

GOOD YIELD.—Union, June 5: We had a call last evening from Mr. S. P. Abell, of Poway, who brought us some magnificent samples of wheat and barley from his farm. Mr. Abell is certain of an average crop above thirty bushels to the acre.

SAN LUIS OBISPO.

ALFALFA WITHOUT IRRIGATION.—Tribune, June 5: We were shown, on Sunday, the 23d of May, a field of alfalfa, by Mr. Pettit, belonging to him, that has never been irrigated, and which has been cut once this season, yielding thirty tons of hay, or two and a half tons to the acre. It is again nearly ready for cutting and will probably yield two tons, and may be cut at least once more this season; making, all told, say, six tons of superb hay to the acre, besides good pasture for the balance of the year. It is grown upon low, but by no means springy or wet land.

SONOMA.

GOOD CROPS.—Petaluma Argus, June 4: On nearly all the farms in the vicinity of Lakeville the grain crops are in excellent condition. Mr. Peoples has a large field of barley, which, it is expected will yield eighty bushels to the acre. McClaren Brothers, who have nearly 1,100 acres of grain and 300 of hay on Sears' point, have finished haying. There was an average yield and the quality of hay is good. They commenced heading their barley this week. The amount of grain per acre promises to be fully as large as in any previous year.

GRASSHOPPERS.—From same: A correspondent at Tomales sends us the following: In the vicinity of Tomales the grasshopper plague is at least a month earlier than last year. Mr. Guberson, of Aurora district, has suffered a considerable loss from these hold intruders. They have eaten already about an acre of his best wheat, and will shortly make inroads upon the potato crop. Many of the grasshoppers are now full grown. The hatching season is over and the ground is alive with them. Along the sunny slopes of the hills they are at present confined, but as seed becomes shorter they will spread out into the valleys and sweep everything before them.

DAMAGE BY NORTH WINDS.—Santa Rosa correspondence of same: The continuous blowing of the north wind is becoming alarming in this valley. Where twenty or thirty sacks per acre were counted upon ten days ago, ten or twelve are now reckoned as probable, and many fields will be cut for hay intended for wheat.

CORN AND POTATOES.—Guerneville correspondence of same: A trip through the farming lands revealed a most flourishing state of growing crops. Corn is remarkably good, the stand being the best for a number of years, running from six inches to knee high. Potatoes and root vegetables are very forward, though planting for late potatoes is still going on, more being put in than usual.

SUTTER.

SAMPLE GRAIN.—Banner, June 5: Clark Brook exhibited some fine samples of grain in town this week, grown on his ranch four miles west of us. The sample embraced club, Proper and Genesee varieties, and all were very fine. The headed or Proper appeared to be the best, though the club and Genesee had the tallest straw. The latter stood four feet eight inches high, and is extra good, though unfortunately the Genesee has been badly shelled by the late heavy winds. It ripened first, and is dry and firm enough for grinding. The heads exhibited had lost almost their entire contents. The club and Proper, being a little green, withstood the winds.

VENTURA.

SOME STATISTICS.—Signal, May 5: There are now in wheat in this county 5,000 acres, average yield 10 centsals per acre; 32,800 acres barley, yield 25 centsals; in corn 4,000 acres, aver-

age yield, 20 centsals. Barley crops are all out of danger, grain of the very best quality, plump and white. The crops compare favorably with those of last year. Our county will ship 20,000 sacks of wheat, 700,000 sacks of barley, 50,000 sacks of corn. No county in the State can make such a showing. The figures were made by S. M. W. Easley, our able deputy assessor, who is a practical farmer and a close calculator. He has traveled all over the county and inspected all the fields and knows whereof he speaks.

[We are glad to hear from our old San Jose friend. When Easley makes a calculation it can be depended on. We wish there were more men of his stamp in office. If there were, Uncle Sam's revenues would be more honestly collected than they now are.—Ed. Press.]

VENTURA BIG GRAPE VINE.—From same: The big grape vine at Montecito, Santa Barbara county, is dying. The next largest vine in the world to this one is in the Ventura valley, on the ranch of Jesus Moraga. It is 45 inches in circumference at the largest part and its branches spread out on a frame over fifty feet from the trunk. To new comers and tourists it is a great curiosity, and excites more wonder than the Santa Barbara vine because it is so much larger considering its age, it being only sixteen years from the seed, while the Santa Barbara vine is over forty years old.

YOLO.

DAMAGE TO THE WHEAT CROP.—Mail, June 3: It is impossible to get a report of the wheat crop of Yolo at this time. There seems to be a diversity of opinion regarding the extent of damage done by the severe north winds of Tuesday of last week and Tuesday of this week. These two days were the most disastrous. Last Tuesday it was more severe here in Woodland, but reports from the foothills regions are to the effect that a week ago the storm was more fierce and did more damage. It is the general impression that over two-thirds of a crop would have been gathered in the county, or say 50,000 tons, had the county not been visited by the wind storm, but there is no doubt but that a large amount of the wheat is on the ground, and that the yield will be reduced at least 5,000 if not 10,000 tons. We were informed yesterday by some of the farmers that the club wheat was affected by shelling out the top grains from the heads, and that the Sonora wheat was badly used up. Last year Yolo county produced about 60,000 tons, or perhaps a little over that amount, but if the yield reaches 40,000 this year, deducting the amount destroyed by the wind, it will do well. Most of the wheat will be harvested this week if the weather will permit, and when threshing begins we will be able to give some idea of the extent of the crop and the damage done.

INCORRECT REPORT.—Democrat, June 4: The Mail states that G. W. Scott has lost half of his entire wheat crop, of 1,800 acres, by being threshed out by the north winds. Mr. Scott says only about 100 acres has suffered badly. The rest had not been materially injured up to yesterday morning.

Oregon.

FLAX.—Oregonian, May 27: About seven weeks ago H. Hewett & Co., of this city, received a lot of flax seed from Europe. Among it was some of the kind known as "Dutch flax," put up by Mees & Moens, of Rotterdam, which has now been proved to be exceedingly well adapted to our Oregon soil. Some of this seed was sowed by a farmer near Salem, on the 10th of April last, and Mr. Wm. Reid and Mr. Hewett yesterday received a bunch of stalks from that sowing. These stalks, only six weeks old, are now fully two and a half feet high, and of a very thrifty appearance. The gentleman who raised this flax thinks the stalks will attain a height of fully five feet before the period for ripening. Such a growth as this is considered really wonderful by those who know the height to which flax usually grows in Ireland, a country noted for this product. There a fair sample is from thirty to thirty-six inches long, while the first year's growth from imported seed in Oregon promises to be nearly twice that length. That grown from such seed is always accounted better the second year, and there is no telling what the proportions of next crop will be, but it is certain to prove very excellent. Flax culture is no longer a problem in Oregon, but its success is assured.

Washington Territory.

FAVORABLE NEWS.—Walla Walla Union, May 29: From all parts of the valley we have the most favorable news with regard to the prospects for abundant crops. The weather has been just the thing for pushing grain ahead, and the harvest will come earlier than usual. But owing to the weather having been quite cool for a good portion of the time, and so much rain having fallen, vegetables and corn have not come on so rapidly as other crops, although they look well and will probably yield better than common, even if they should be a little late in maturing. But the hay and grain crop is sure to be unusually heavy, and should we have no more rain from this on until after harvest, there would still be a good crop, as the year is too far advanced to be greatly injured by anything, unless it were a very extraordinary drouth, which, by the way, we never do have, and are not at all likely to have this season.

The first sample of new wheat arrived at South Vallejo, on last Thursday. It came from Elmira.

PATENTS & INVENTIONS.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

[FROM OFFICIAL REPORTS FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.]

By Special Dispatch, Dated Washington, D. C., June 8th, 1875.

FOR WEEK ENDING MAY 25TH, 1875.

MACHINE FOR SAVING QUICKSILVER.—John W. Varney, Virginia City, Nev.
SPRING TRACER CARRIER AND BACK LOOP.—Wm. Davis, Petaluma, Cal.
SHOE FOR WAGON BRAKES.—John Grimste, Milton, Cal.
PRINTERS' GALLEY.—Henry H. McWilliams, Sacramento, Cal.
TRACTION ENGINE.—William H. Milliken, Sacramento, Cal.

RE-ISSUE.

HYDRAULIC ELEVATOR.—Timothy Stebins, San Francisco, Cal.

The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue.

NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & CO., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with perfect security and in the shortest possible time.

Coming Fairs and Exhibitions.

[Officers of industrial societies will please inform us of their approaching fairs and exhibitions.]

Twenty-second annual fair of the California State Agricultural Society, to commence on the 15th and end on the 25th of September, 1875, at Sacramento.

The Centennial International Exhibition, at Fairmount Park, Philadelphia, will open on the 15th of April, 1876, and close on the 15th of October following.

International Exhibition of Chile, Santiago, will open nominally August 15, 1875, continuing until April 2, 1876. Officially from September 16, 1875, to January 1, 1876. Articles for exhibition may be entered at any time from the 15th of August to the 15th of September and can remain on exhibition if the exhibitor so desires until the 2d of April following.

Fifth Industrial Exhibition of the Mechanics' Institute of San Francisco, commencing Tuesday, August 17, 1875, to continue open at least one month.

American Pomological Society, Fifteenth session, at Chicago, Wednesday, September 8, 1875, continuing for three days.

The Alabama State Grange Fair, at Selma, Alabama, Tuesday, October 26, 1875, continuing five days.

Fifteenth Annual Fair of the Oregon State Agricultural Society, at Salem, commencing Monday, October 11th, 1875, and continuing six days.

The sixteenth annual exhibition of the Santa Clara Valley Agricultural Society will commence Oct. 4th, 1875, at San Jose, and continue for six days.

The second annual Fair of the Nevada State Agricultural, Mining and Mechanical Society will commence on the 4th and end on the 8th of October, 1875.

The annual fair of the Santa Clara Valley Agricultural Society, for 1875, at San Jose, commencing October 4th, and continuing six days.

The Washington Territory fair, commencing on Monday, October 18th, and closing on Saturday, the 23d.

SUBSCRIBERS are requested to examine the printed address on their papers. If mistake occur at any time, please report them to this office. The last figures (at the extreme right) represent the year that your subscription is paid to. Next to these the day and month is represented. For instance, your subscription being paid to July 4th, 1876, it would be represented, viz: Jul 4 '76; or Jul 4/76.

WOODWARD'S GARDENS embrace an Aquarium, Museum, Art Gallery, Conservatories, Tropical Houses, Menagerie, Seal Ponds and Skating Rink.

MUSIC SCHOLARS who use Clarke's New Method for the Piano Forte, make wonderful progress in the study. Price, \$3.75.

CARD.

IMMIGRANT BUREAU,
123 CALIFORNIA STREET,
SAN FRANCISCO, CAL.

For the purpose of directing immigrants, this Bureau desires information of all irrigating ditches in process of construction.

We can, with safety, send immigrants to neighborhoods where land can be irrigated.

Please state definitely where such ditch is taken out from the river or stream, and the land through which it passes or will pass, and, if possible, send also a description, by section, of the land proposed to be brought under the influence of the water.

Such information, if given to the Bureau in detail, will be used in directing immigrants to the lands, and will tend to settle the country so designated.

If you have or can procure a map of the exact location of the ditch it will be of great service.

J. EARL.

LOCKE & MONTAGUE,

IMPORTERS OF

Stoves, Ranges,

Tin Plate, Sheet Iron, Iron Pipe,

House Furnishing Hardware,

Plain Japanned,

Planished and Stamped

TIN WARE,

112 and 114 Battery Street.

SAN FRANCISCO.

17p

Dewey & Co. { 224 } Patent Agt's.

Nurserymen.

Established 1853.

Stocks for Nurserymen.

Plum Seedlings, Miroholan, the best French stock, does not sucker..... \$50 per 1000
 Apple Seedlings..... 10 per 1000
 Pear Seedlings..... 10 per 1000
 Cherry Seedlings, Mazzard..... 12 per 1000
 Cherry Seedlings, Mahaleb..... 20 per 1000
 Walnut, English, 4 to 6 feet..... 15 per 100
 Cork Elm, best Elm, 4 to 6 feet..... 15 per 100
 Blue Gum or Eucalyptus, in variety..... 5 to 10 per 100
 Magnolia Grandiflora.....
 Magnolia Acuminata.....
 Magnolia Tripetala.....
 Golden Arborvitae.....
 Crataegus Arbutifolia.....
 Swedish Juniper.....
 Irish Juniper.....
 Heath-leaved Arborvitae.....
 Heath, Mediterranean..... \$2 50 per doz.
 Laurustinus, 6 to 12 in..... 2 50 per doz.

Making the growth of Oranges and Lemons a specialty, I have imported from all sources the best known varieties, and now offer five thousand Grafted Trees properly worked and twice transplanted at \$18 per dozen. Grafted oranges by the 100 or 1,000 at prices on application. The amateur in want of large PALMS, large AURICAMAS, large CAMELIAS and large TREE FERNS, a good stock on hand; also the usual large stock of fruit and ornamental trees.

BERNARD S. FOX,
 San Jose, Cal.

THOS. MEHERIN, Agent, 516 Battery Street, San Francisco. 24v8-3

SUPERIOR FRUIT TREES

TRUE TO NAME.

A fine collection of Evergreen and Deciduous Trees. Australian Gum Trees in variety, by the hundred or thousand. Monterey Cypress in quantities and sizes to suit all. Orange and Lemon Trees at reduced prices. A general variety of Nursery stock.

Also, Rhubarb and Asparagus root.

T. CORLEY,
 8v29-1f 315 Washington Street, S. F.

PEPPER'S NURSERIES.

(Established in 1858.) PETALUMA, CAL.

Green Houses and Tree Depot corner Washington and Liberty streets.

4 Green Houses. 5,000 feet of Glass. Fruit Trees a Specialty.

We offer for sale at lowest market rates a general assortment of Fruit and Shade trees, small Fruits, Vines etc. Evergreen trees and Shrubs in great variety. Green House, Conservatory and Bedding Plants, Roses, etc. Eucalyptus in variety. Eucalyptus Globulus, per 1000 for forest planting, at very low rates. Catalogue and price list furnished on application.

Address, W. H. PEPPER,
 19v8-1f Petaluma, Sonoma Co., Cal.

Thos. A. Garey's

Semi-Tropical Nurseries.

LOS ANGELOS, CAL.

Forty varieties of the Citrus family of semi-tropical trees, including many rare and beautiful, as well as useful and profitable kinds.

Grafted and Budded Orange Trees a specialty. Trees packed to arrive in good order. Priced Catalogue sent free. Address me P. O. Box, 628, Los Angeles city, Cal.

23v8-6m THOS. A. GAREY.

J. Y. WILSON. WM. FAULL. W. L. MERRY

WILSON, MERRY & CO.,

Provision Packers

And Dealers in

SALTED AND SMOKED MEATS,
 Lard, Etc.

PROP'S BLACK POINT PACKING HOUSE.

We respectfully call the attention of Farmers and Stock Raisers to the fact that we are always prepared to purchase hogs, cattle and sheep at full market prices, for Cash, and shall be glad to answer promptly any inquiries addressed to us on the condition of the Market.

Office No. 223 Sacramento St., Near Front, San Francisco.



5,500 ACRES

Of the best portion of the old NOMELOCKE RESERVATION, in Tehama County, for sale very low; only five dollars per acre; one-third down, one-third in one year and one-third in two years, with interest at one per cent. per month. Will be sold all together or in two parcels. This is one of the finest tracts of grazing land in Northern California; is abundantly watered by numerous perpetual springs and has two miles of the Elder Creek, a clear mountain stream. Its grass never fails from drought, and is of the best quality for sheep and has no clover burr. 800 acres of level plow land; timber for posts, fuel, etc. Enquire of ALLEN WILCOX, Los Angeles, or F. B. WASHINGTON on the tract, twenty miles west of Tehama.

Agricultural Articles.

KIMBALL GAR, CARRIAGE

—AND—

AGRICULTURAL IMPLEMENT

MANUFACTURING CO.,

Cor. Bryant and Fourth Sts., San Francisco

The CALIFORNIA TUBULAR IRON AND WOOD FRAME HARROW—two, four and six-horse Iron Harrows, \$60, \$70 and \$75. Wood Frame Harrow, \$10 less on each size than the Iron.

The Harrow has an easy seat for the Driver. The middle section rests on three wheels with wings hinged on each side.

By use of Levers the Driver in his seat can raise or lower the Harrow, regulating at will the depth of the teeth in the soil, and in the same manner fold or raise the wings from the ground so as to drive from the road to the field, saving the use of a wagon.

Our CALIFORNIA SCRAPER is also made for the ease of the Driver, enabling one person to ride, manage the team and do the work.

Is adapted for leveling and preparing the surface of the soil for irrigation. And for making roads, removing dirt from ditches, cleaning barn yards, sheep corrals, etc.

The IMPROVED EAGLE HAY PRESS—Best in use on this Coast. Cheap, Economical, Powerful, and easily repaired.

Will press bales weighing from 250 to 325 pounds, using less rope than any other press.

Three men with a good team of horses will bale from 10 to 15 tons per day.

Adapted for haling wool, hides, cotton, rags or moss. Price, \$250. Weight of press, 2,500 pounds. Please send for circulars.

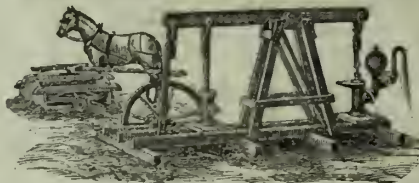
VINE AND FRUIT GROWERS,

TO RAISE LARGE CROPS

YOU MUST IRRIGATE.

To irrigate successfully, you must have the power that does not give out when the wind fails.

Laufkotter Bros. & Churchman's Horse-Power,



(PATENTED FEBRUARY 12TH, 1872.)

Never fails to supply more water than four or five Windmills, even expending you had all the wind you want. It is also suitable for running light machinery, such as Barley Cracks, Corn Shellers, Fanning Mills, Grain Separators, or for Sawing Wood. They are never failing, cannot get out of order, easily worked, substantial, and always give satisfaction wherever they have been used. One horse can easily work two six-inch pumps, with a continuous flow of water. Force Pumps, from 3,000 to 10,000 gallons per hour. WINDMILLS of all kinds manufactured to order. Wells Bored, Windmills and Horse-Power set in any part of the State, and repairing of all kinds done. Manufactured and for sale by

LAUFKOTTER BROS.,

17-2m-3m Cor. J and 10th Sts., Sacramento.

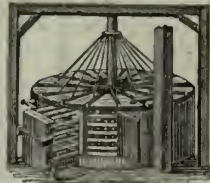
THE GRANGER ENGINE.

Farmers' and Threshers' attention is called to this splendid Engine. Especially adapted to burning straw, wood or coal. This is the only Engine in the market that is designed to run Derrick Forks by steam. The saving of fuel to run the Engine, and the men and horses dispensed with in running the Derrick Forks, will amount to the Price of the Engine in one season. Manufactured and sold by

J. L. HEALD, Vallejo.

Plummer's California Fruit Drier.

PATENTED DECEMBER 29TH, 1874.



This is the Cheapest and Most Economical, Largest Capacity, and Most Speedy DRIER, and gives the fruit a better flavor than any other machine ever invented. It only requires a shed to work under; 2d—has boiler, engine, and steam pump for irrigating or other purposes, in connection with the Drier or separately; 3d—the cost is one-half less than any other of the same capacity, and there is no danger of burning the fruit. A sample machine is in full operation at our factory, No. 31 Beale St. Address, SPAULDING & BRO., San Francisco, Cal.

Send for Circulars.

LANE & BODLEY,

John & Water Sts., Cincinnati.
 Manufacturers of the Best

FARM ENGINE.

Mounted and ready for use. Send for our illustrated catalogue.

ENRIGHT'S

Portable Strawburning Engines

Burns either Straw, Wood or Coal, Manufactured and sold by JOSEPH ENRIGHT.

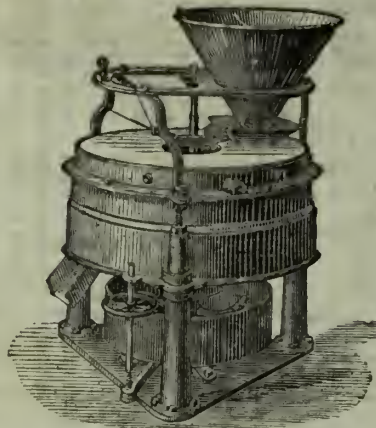
mr-13-3m

Jose.

J. WAGNER,

MANUFACTURER OF

FRENCH BURR MILL STONES AND PORTABLE MILLS.



General Mill Furnishing. Portable Mills specially adapted for Farmers' use. 113 and 115 Mission street, San Francisco. 13v7-3m-2m

G. CREGO.

S. O. BOWLEY.

CREGO & BOWLEY,

Importers and Manufacturers

—OF—

CARRIAGES and WAGONS,

No. 9 Merchant's Exchange.

CALIFORNIA STREET.....SAN FRANCISCO

Keep constantly on hand top and open Buggies, top and open Rockaways, Jump-seat Buggies, Track and Road Snikies, Skeleton Wagons, Basket Phaetons of the very latest styles and finest workmanship.

We would call particular attention to our fine stock of light Road and Trotting Wagons, made to order by the following celebrated makers:

Charles S. Coffey, Camden, New Jersey;
 Helfield & Jackson, Rahway, New Jersey,
 Gregg & Bow, Wilmington, Delaware;
 And the first-class makers, which we are prepared to sell on the most reasonable terms.

Also, a large assortment of single and double Harness, of the most celebrated makers:

O. Graham, New York; J. R. Hill, Concord; Pittkin & Thomas, Philadelphia.

Also, a full assortment of Dress and Light Blankets, Fur and Lap Robes, Whips, Hatters, Sarcufages, etc., at wholesale and retail.

CREGO & BOWLEY,

No. 9 Merchants' Exchange, California street, 24v5-3m San Francisco.

MATTESON & WILLIAMSON'S

AMERICAN CHIEF



GANG PLOW.

Took the Premium over all at the great Plowing Match in Stockton, in 1870.

This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knobs without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m

MATTESON & WILLIAMSON,
 Stockton, Cal.

Steam Power and Separator.

A large Boiler, Steam Engine, and first-class Buffalo Pitts Separator, second-hand, in perfect running order, is offered for sale. Young horse stock of good style and pedigree (about 11 cwt.), also cattle and sheep, will be taken in part consideration.

Apply to

G. COOK,

Cordelia, Solano County,

Or to JOHN WHITE, 1000 Market St., San Francisco.



Massillon Harvester

Buy the Best.

TWO men bind

200 Acres daily.

Binders can SIFT

or STAND. Address,

EDWIN HAYLES,

Massillon, O.

SEEDS.

PLANTS.

OF EVERY VARIETY.

Fresh and reliable, such as experience and care only can select.

GRASS AND CLOVER SEEDS, KENTUCKY BLUE GRASS, HUNGARIAN, ORCHARD, ITALIAN RYE, RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL, CHOICE CALIFORNIA ALFALFA, WHITE CLOVER, RED CLOVER, Etc.

Also, RAMIE, JUTE AND TOBACCO SEEDS; together with a fine and complete collection of TREE SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGANTEA, PINUS INSIGNIS, Etc.

For Sale, wholesale or retail, by

B. F. WELLINGTON,

(Successor to E. E. Moore).
 425 Washington St., San Francisco. 22v7-1y

LOOK TO YOUR INTEREST!



MANUFACTURED BY THE

PACIFIC RUBBER PAINT

COMPANY.

For many years chemists and others have experimented in mixing India Rubber with Oil, Lead, etc., in order to produce a perfectly

WATER-PROOF PAINT,

And at last successful in their effort, have formed a chemical combination of Rubber with oil paints, which when applied becomes hard and elastic enough not to crack or peel, from the action of the atmosphere, with a gloss equal to work finished with varnish. The

Pacific Rubber Paint Company,

Of San Francisco, California, together with the RUBBER PAINT COMPANY, of Cleveland, Ohio, own all the patents covering perfect combinations like the above, which is known and sold by them as "Rubber Paint."

The great demand for the Rubber Paint induced this Company to purchase of the Cleveland, Ohio, and New York Rubber Paint Company, the patents for this coat, and are now manufacturing this paint in all colors, in large quantities, and have put the price below the best lead and oil paints. The Rubber Paint is prepared in Pure White, in all Cottage and other colors, comprising any number of different shades and put up ready for use, being a great advantage, as it can be spread by any one.

It Flows From the Brush Freely. Works

Easily, and Settles Promptly. It is available for all kinds of Painting,

And may be used with equal advantage on iron, stone wood, brick, or plaster.

The Rubber Paint will cover more surface, cover it better, and last much longer than Lead and Oil. Two coats of the Rubber Paint is better than three coats of Ordinary Paint.

SAN JOSE, CAL., March 20, 1875.

PACIFIC RUBBER PAINT CO., San Francisco.—Gentlemen:—I have used and sold the Rubber Paint in this city during the last four years. We have about one hundred buildings painted with the Rubber Paint. Among the prominent ones are the State Normal School, Gates Institute, City Market; the residence of Josiah Belden, J. W. Hinds, President Gold Note Bank, J. B. Arguello, Santa Clara, etc. It has never failed to give satisfaction, with a test of from one to four years, so that its durability has been well tested. My sales last year were nearly five thousand gallons.

Truly Yours, AMASA EATON.

REFERENCE:

CAPT. EDWIN MOODY, San Francisco;
 AMASA EATON, San Jose.
 WILLEY & RINALDO, San Jose.
 WALLACE EVERSON, Oakland.
 F. K. SHATTUCK, Oakland.
 ISAAC KNOX, ESQ.

Office and Factory:

Pacific Rubber Paint Co.,

No. 207 Sacramento street,

SAN FRANCISCO, CAL.

mar27-28

THE ALDEN

FRUIT PRESERVING COMPANY,

OF CALIFORNIA.

OFFICE, 426 MONTGOMERY ST., S. F.

Our improved apparatus will do one-third more work than that erected last season, while our prices have been materially reduced. A portion of the purchase money may be paid in the products of the Alden factories. We guarantee against infringements. The Alden is the oldest, the best and the cheapest process known for preserving fruits, vegetables, meats, etc.

It would be unwise to purchase the new and untried dryers before they have demonstrated their superiority by at least one year's regular work. Send for our circulars.

GREAT EASTERN AND WESTERN

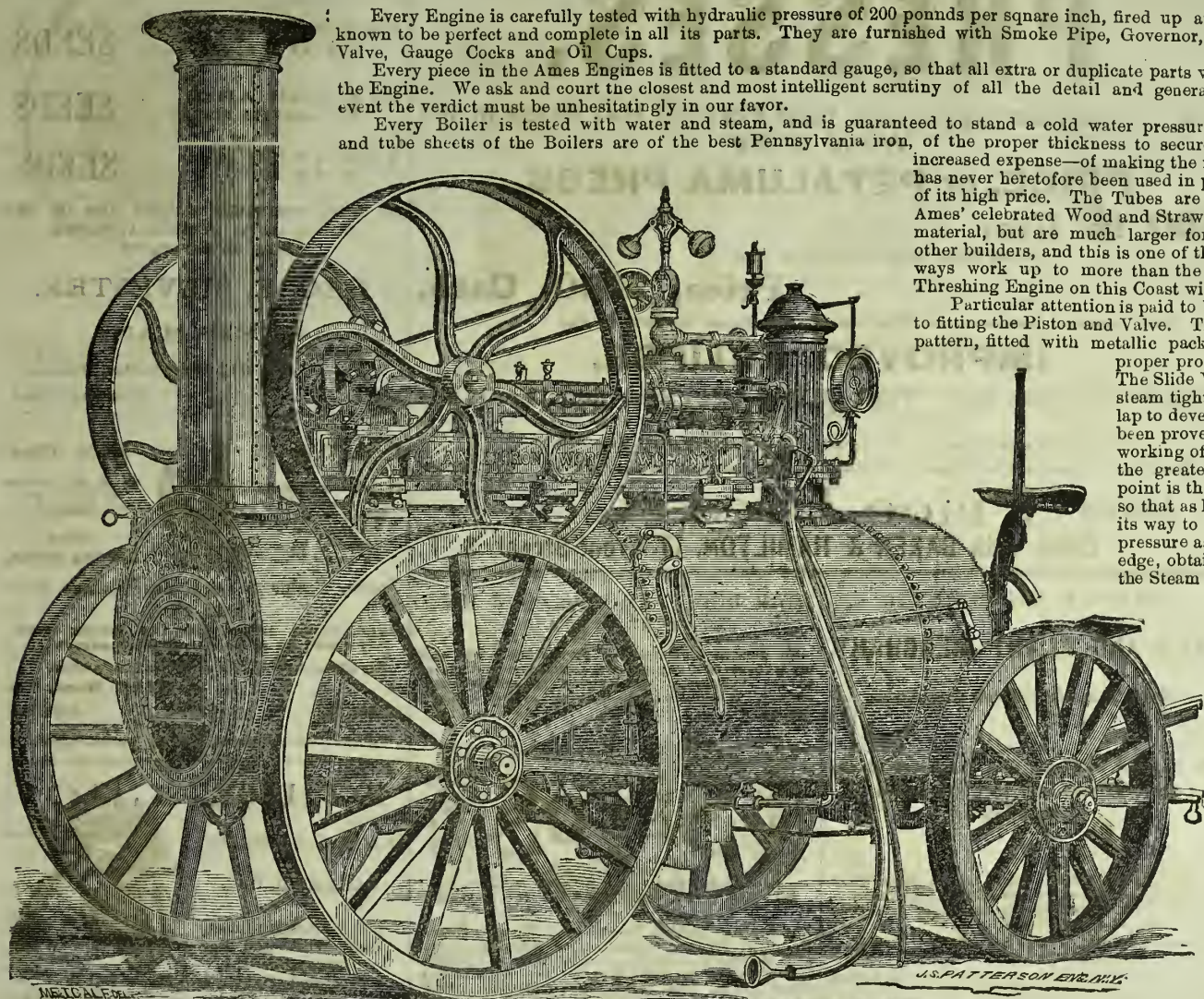
Horse and Mule Market,

Cor. Fifth & Bryant Streets, San Francisco.

A choice stock of Carriage, Draft and Farm Horses on hand, and constantly being received from the East. All classes of Horses and Mules purchased and sold.

WASHBURN & RANDALL, Props

Geo. W. Chapin, Real Estate Agent, 434 Montgomery St., San Francisco, buys and sells Ranches in all parts of the State. City Real Estate exchanged for country property. MONEY LOANED. Post Office Box 1127

AMES' CELEBRATED STRAW AND WOOD BURNING ENGINES.**BEST AND MOST COMPLETE THRESHING ENGINES IN THE WORLD.**

Every Engine is carefully tested with hydraulic pressure of 200 pounds per square inch, fired up and run with 120 pounds steam pressure, until known to be perfect and complete in all its parts. They are furnished with Smoke Pipe, Governor, Heater, Steam and Water Gauges, Whistle, Safety Valve, Gauge Cocks and Oil Cups.

Every piece in the Ames Engines is fitted to a standard gauge, so that all extra or duplicate parts will fit as well as those that originally came with the Engine. We ask and court the closest and most intelligent scrutiny of all the detail and general "make up" of our Engine, being satisfied in that event the verdict must be unhesitatingly in our favor.

Every Boiler is tested with water and steam, and is guaranteed to stand a cold water pressure of 200 pounds to the square inch. The shell and tube sheets of the Boilers are of the best Pennsylvania iron, of the proper thickness to secure strength—while extra precaution is taken at an

increased expense—of making the furnace of the Best Solid Fire Box Plate, which has never heretofore been used in portable engines for threshing purposes, on account of its high price. The Tubes are the best American lap-welded. The Boilers of Ames' celebrated Wood and Straw Burning Engines are not only made of better material, but are much larger for the same price and horse power than those of any other builders, and this is one of the many reasons why the Ames Engines will always work up to more than the horse power at which they are rated; this no other Threshing Engine on this Coast will do.

Particular attention is paid to boring the Cylinder accurately and smoothly, and to fitting the Piston and Valve. The Piston is of the most approved locomotive pattern, fitted with metallic packing rings, which are adjusted by steel springs of

proper proportion regarding tension, elasticity and strength.

The Slide Valve and its face are made perfectly true and steam tight, and it is constructed with the proper amount of lap to develop the most improved data of expansion that has

been proved by numerous experiments to point the correct working of the Engine, in relation to the use of steam, with

the greatest economy and efficiency. Another important point is the proper size of the steam and exhaust passages, so that as little as possible of its force is lost by friction on

its way to the cylinder, and that there may be as little back pressure as possible in the exhaust. From absolute knowl-

edge, obtained from careful practical experience and use of the Steam Engine Indicator, we have had constructed and

proportioned these ever important parts of our

Straw and Wood-Burning Engines, and we have no hesitation in claiming decided advantages for

them regarding economy in fuel and increased power and efficiency. The Boilers of Straw

Burners are of the return tubular pattern, with a large flue in the center, and return flues or

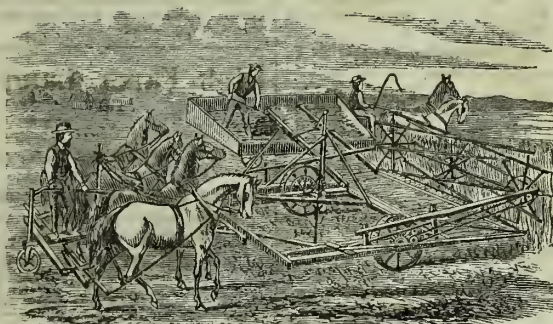
tubes, two inches in diameter. Every Engine is fired up and run at our store before it is

turned over to the purchaser, so that we know every Engine will give perfect satisfaction.

SOLD ONLY BY

BAKER & HAMILTON,

San Francisco and Sacramento.

OUR IMPROVED HAINES' HEADER,

With Compound Leverage,

Doing away with all Ballast or Weights,

Either on the Lever or Frame; will be appreciated by Header Men. Also, a new device for driving the Knife, making the Header run one horse lighter than any header ever imported. The driving of the Reel is an improvement; in turning, the Reel runs just as fast as when driving straight ahead. The improvements will be found to meet the demands of California trade.

Our Excelsior Mowers are Improved for 1875.

Three Sizes—"Junior," "Medium" and "Senior."

**J. I. CASE & CO.'S
SEPARATORS AND STEAM ENGINES**

Are the Largest Works of the Kind in the World.

The Threshers and Engines are Made Expressly for this Trade.

**Pitts' Down and Mounted Powers, "Foust's" Hay Loader, and
Keller & Co's Sulky Revolving Hay Rake,**

An age in advance of any other Rake. See these goods before buying; they can be found with us only. Our Stock of Implements is Complete.

Haines' Header Sickles, Excelsior Mowing Knives, Buckeye Mowing Knives, (Nos. 1 and 2), Sections, Rivets, Etc.

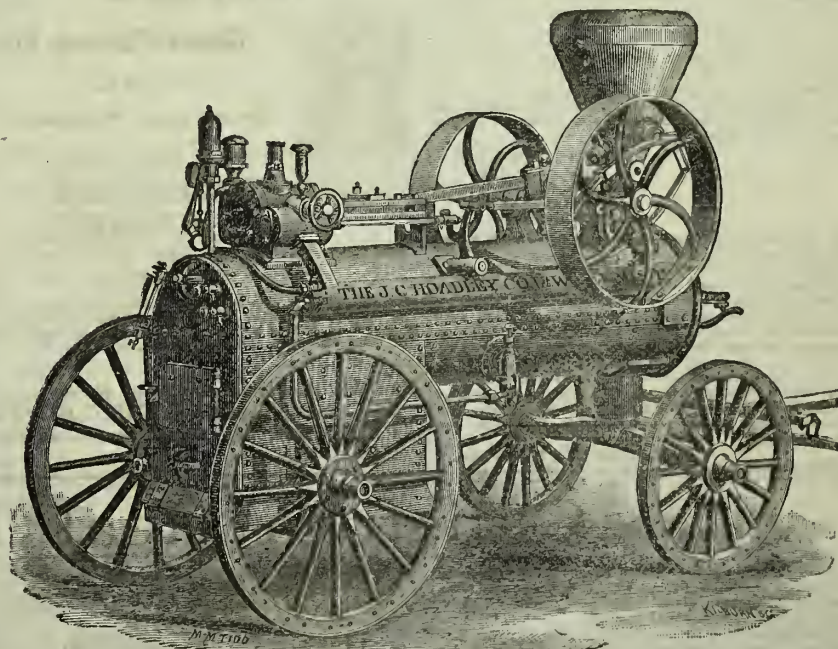
THRESHERS, ENGINES, POWERS, HEADERS, REAPERS, MOWERS, RAKES, HAY PRESSES, CORN PLANTERS, CORN CULTIVATORS, CORN SHELLERS, CIDER AND WINE MILLS, HAY CUTTERS, DERRICK FORKS, BELTING, PUSH CARTS, PLOWS, HARROWS, CULTIVATORS, GORHAM SEEDERS AND CULTIVATORS COMBINED, FISH BROS., PACIFIC WAGONS, REGULATOR WINDMILLS AND PUMPS, ETC.

KELLER & CO., 43, 45 & 47 J Street, Sacramento, Cal.
SEND FOR CIRCULAR.**A GOOD BARGAIN.**

\$500 will buy a good, pre-emption claim of 160 acres in Monterey County, with a good Dwelling House that cost more than that amount, situated one-half a mile from the Los Angeles Stage Road, and about the same distance from the line of the Southern Pacific Railroad. Apply to

MRS. ROWLANDSON,
On the Premises, San Antonio, Cal.**LOOK!**

ALBERT E. BURBANK, Importer and Breeder of Fancy Fowls, Pigeons, Rabbits, etc. Also Eggs for hatching from the finest of imported stock. Eggs and Fowls at reduced prices. Send for Price List.

ALBERT E. BURBANK,
148-3m 43 & 47 Cal. Market S.F.**The Hoadley Regulating Cut-off****THRESHING ENGINES.**

The above cut represents the Hoadley New Style Threshing Engine, 15-horse power, with Patent Cut-off Governor. We also have the same style and size, with HOADLEY'S NEW PATENT STRAW-BURNING FIRE BOX. This new Engine has been thoroughly tested, and we are prepared to warrant it to give satisfaction. OUR GUARANTEE GOES WITH EVERY ENGINE INTO THE FIELD. This new engine is fitted out complete, with High Seat, Foot-Board for Driver, California Roller Brake (not shown in engraving), Iron Hub, Patent Wheels, Forged Bent Axle, and all Mountings in Perfect Order.

THE

Hoadley Straw-Burning Threshing Engine

Is no heavier than wood-burning engines of same power, and is unquestionably the Best Threshing Engine in the world. It is Lighter, Better Made, Safer, and will do More Work than any other engine of same size and price ever built. THIS FACT IS INDISPUTABLE.

Farmers and Threshers desiring to buy Straw-Burners for coming season, should secure their Engines Early, as the number is not large, and many are already engaged. All Engines will be tested in presence of customers, when required. Send for Circular and Prices. Address,

TREADWELL & CO., Sole Agents, San Francisco.**FOR SALE.****400 Pure Blood French Merino Rams,**

On the Oristimba Ranch, six miles west of Hill's Ferry, Stanislaus County, Cal. All Rams delivered at the railroad, free of charge. Terms easy and prices liberal.

A. G. STONESEFER.

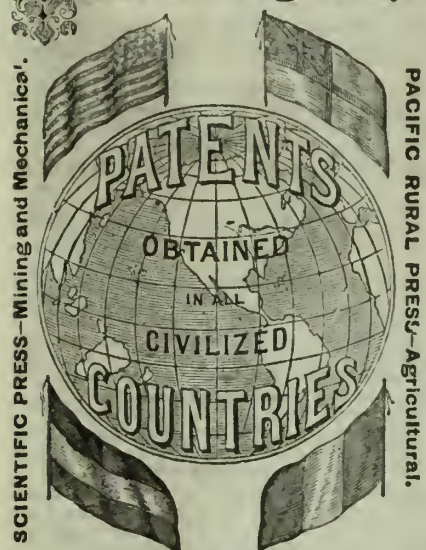
ALEX. BUSWELL.**BOOK BINDER, PAPER RULER**

AND BLANK BOOK MANUFACTURER.

521 Clay Street, S. F.

Blank Books Ruled, Printed and Bound to Order

DEWEY & CO'S SCIENTIFIC PRESS Patent Agency.



Publishers, Patent Agents and Engravers,
No. 224 Sansome st., San Francisco, Cal.

SANTA ROSA, SONOMA Co., CAL., Jan. 27, 1875.
Messrs. DEWEY & Co.—Sirs: My Patent is at hand,
the receipt of which is hereby acknowledged. Accept
my thanks for your energy and promptness in the
premises. Yours, etc., Q. C. TEBBS.

IMMIGRANT BUREAU.

J. EARL, Manager.

I. G. GARDNER, Assistant.
123 California Street,
Second Floor, San Francisco, Cal.

To the Immigrants Seeking Homes,
Labor and Information.

There is ample room in our State for all that are
arriving to find homes, and there is plenty of work for
willing hands to do. By the information we expect to
give through this Bureau, we anticipate no difficulty in
finding homes and employment for all who may come.
This office will be furnished with maps of Government
and other desirable lands for sale, with full information
relative to location, soil, climate, etc.
The simple object of the Bureau is to protect the
interests of immigrants, giving reliable information
where the new comer can find employment, and homes
on lands with perfect title, free of charge; and since
the Bureau will be in correspondence with reliable or
similar Bureaus throughout the State, it cannot fail to
accomplish the object intended.

MAYOR JAMES OTIS,
I. FRIEDLANDER,
C. J. CRESSEY,
C. ADOLPHE LOW,
JOHN MORTON.

The Committee having selected the appointed Agent
of the Grangers' Immigrant Committee and the late
Business Agent of the State Grange as their Manager
and Assistant, shows a friendly disposition and desire
to unite with us in our efforts as Grangers that we
should not ignore; and as this institution is to be sus-
tained by the people at large, we therefore appeal to
Grangers, and ask their co-operation and support, and
to take immediate action in selecting some person in
their Grange to receive orders for help and send the
same to this office, that we may fill them, also to whom
we may refer those seeking homes and situations. It
is desirable that we have full description of lands for
sale and to rent.

J. EARL, Manager.

HAY and WOOL PRESSES.

The Fastest, Strongest, and Best Portable Hay Press in the
World is the

PRICE, or PETALUMA PRESS.

400 in Use.

Bales from 12 to 20 tons per day.

Price, \$450, Cash.

The Most Simple, Compact and Effective Cheap Press Known is the

IMPROVED ECLIPSE,

Eight feet six inches high. Weighs 2,000 pounds. Bales from 10 to 18 tons
per day. Price, \$300, Cash.

The above machines are delivered at the Factory, San Leandro, Cal.

For further information or for illustrated circulars that answer all questions relating to the above Presses

Address Price Press Co.,

Office with BAKER & HAMILTON, 17 Front Street, S. F.

CHAS. F. CRESWELL,

SEED AND PLANT MERCHANT,

Victoria, Tasmania, and New South Wales.

The Largest Collector and Exporter of the
Eucalyptus Globulus (Tasmanian
Blue Gum).

C. F. O. having Branch Houses in the three Chief
Colonies, and botanical collectors throughout Australia,
can offer the best advantages to dealers in Australian
Native Seeds, Plants and Ferns.

Eucalypti and Acacia Seeds in endless variety and of
the most excellent quality.

His most convenient branch for exporting to Europe
and America is found by addressing to

C. F. CRESWELL, Seedsman.

No. 37 Swanston Street,

Melbourne, Victoria.

GEO. B. BAYLEY,

IMPORTER AND BREEDER OF

Jersey Cattle,

Choice Poultry, Etc.

OAKLAND

Poultry Yards,

Cor. 16th & Castro Streets, Oakland.

Send stamp for circular, containing a full description of
all the best known and most profitable fowls in the country.

G. B. BAYLEY,

P. O. Box 659, San Francisco.

N. B.—A car-load of Jersey Cattle to arrive in June.

\$25 a day guaranteed using our Well
Auger & Drill. \$100 a month
paid to good Agents. Auger book
free. J. H. Auger Co., St. Louis, Mo.

More than double the number of Farmers and
their families read the PACIFIC RURAL
PRESS than any other journal on this
Coast.

1874. GUIDE AND CATALOGUE 1875.
FREE.

To persons contemplating purchasing I will send
my ILLUSTRATED, DESCRIPTIVE CATALOGUE and GUIDE
to the VEGETABLE and FLOWER GARDEN WITHOUT
CHARGE. It contains the most extensive and valuable
list of



Flowering Bulbs, Roots and Plants, Semi-
Tropical Trees, Ornamental Shrubs, Fruit
and Shade Trees, etc., ever offered in this market.
It tells how to successfully grow the Australian
Blue Gum, the Monterey Cypress, Pine,
etc., and the proper method of Cultivating To-
bacco on this Coast.

My stock of seeds is in part my own raising
and in part direct importations from the best Euro-
pean and Eastern growers, and is unsurpassed in all
respects by that offered by any other establishment.
100,000 Australian Blue Gums and Monterey
Cypress in boxes at from \$30 to \$50 per
1,000, raised at my own Nursery at San Rafael.

R. J. TRUMBULL,

Grower, Importer, Wholesale and Retail Dealer in
Seeds, Shrubs, Trees, etc.

2078-6m-16p

427 Sansome street, S. F.

UNIVERSITY of CALIFORNIA,

BERKELEY, near Oakland.

COLLEGES OF AGRICULTURE,

CHEMISTRY, MECHANICS,

MINING, ENGINEERING

and LETTERS.

Examinations for Admission, August 11th and 12th,
at 10 o'clock A. M.

Tuition free. Circulars sent on request.

bp-td

THE PACIFIC RURAL PRESS has a
larger Circulation than any other Pacific
Coast Weekly, independent of a daily issue.

NEW CROP OF BLUE GUM SEED.

GRASS AND CLOVER SEEDS.

FLOWER AND VEGETABLE SEEDS.

TREE AND FRUIT SEEDS.

OF EVERY DESIRABLE VARIETY AND OF THE
BEST QUALITY; OFFERED AT WHOLE-
SALE OR RETAIL, BY

GEO. F. SILVESTER,
SEEDSMAN,

No. 317 Washington Street,

478-17

SAN FRANCISCO

Bronze Turkeys Emden Geese
12 Gobblers from 8 40 to 50 pounds
to 20 months old, per pair at ma-
22 to 40 lbs each, turity.
for sale now. BLACK
Hens 14 to CAYUGA DUCKS,
18 lbs.

Games, Brahmas, Leghorns, Houdans, Ban-
tams, etc.

Eggs, fresh, pure, true to name; well-
packed so as to hatch after arrival.

For Illustrated Circular and Price-List, address
M. EYRE, Napa, Cal.

FERRETS. RABBITS. PIGEONS.

Please state where you saw this advertisement.

M. FALLON,

Cor. Seventh & Oak sts.,

OAKLAND, CAL.

Light & Dark Brahmas,
Buff, White and Par-
tridge Cochins,
Spangled, Golden and Silver Polish,
Spangled, Golden and Silver Hamburgs,
Pure White-faced Black Spanish,
White and Brown Leghorns,
Silver Grey Dorkings,
Houdans, Silkies, Black-Red Games,
Bronze Turkeys, Rouen and Aylesbury Ducks.

All from Premium Stock of Best Strains.

Fowls of above varieties for sale; also, Chickens in their
season. Eggs packed with care and sent in rotation as
orders are received. 179-16p-17

Rich Farm Land For Sale.

L. F. MOULTON, of Colusa,

OFFERS FOR SALE VERY CHEAP, THREE THOU-
SAND ACRES OF EXTRA GRAIN LAND, AD-
JOINING WHICH ARE NOW GROW-
ING FIELDS OF GRAIN WHICH
WILL YIELD FORTY BUSH-
ELS TO THE ACRE.

This land is as good as any in the State, and will be
sold very cheap.

Address the owner, at Colusa, for partic-
ulars.

NEW YORKER REAPERS,
One Hundred Dollars Each.
For Sale by
FARMERS' UNION, San Jose.

Calistoga Real Estate Company.

Calistoga, with a population of about 800 persons,
is a village watering place at the head of the valley of
Napa, in California. It is four hours' travel north of
San Francisco by steamboat and rail.

Its shipping point is Vallejo, on the bay of San
Francisco, forty miles distant by rail. It lies at the
head of the most charming valley in the State.

THE BEAUTIES OF NAPA.

In traversing this thirty-seven miles of fertile dale,
the eye never wearies. If one ascends the sides of the
leafy mountains that bound the valley on either side,
whether looking up the valley or down, and from
whatever point of view, the scene is one of ravishing
beauty.

Mounting the summit of St. Helena, which towers
over all, far to the east the snowy Nevada bound the
view; and to the west spreads the Pacific ocean, with
its winged ships and its blue horizon. To the north
are the vast forests of Mendocino, its stately trees,
turned to shrubbery and Clear Lake in its pride of
expansive dwindled to mill dam.

THE WARM SPRINGS.

From the beauties of Calistoga we turn to its other at-
tractions. The estate covers 2,000 acres of fertile
land. Its warm springs are crowded with invalids,
who flock to its healing waters, and who return cured
of their rheumatism, their dyspepsia, their torpid
livers and their tender kidneys. The medicinal ele-
ments of the hot springs are principally iron, magne-
sia and sulphur. In this climate, the season of water-
ing places is prolonged.

THE SURROUNDINGS.

By consulting a map it will be apparent that Calis-

toga is destined to become a commercial town of im-
portance. It is the center to which converge num-
erable highways leading to many of the richest cul-
tivated valleys of California.

INDUSTRIAL ENTERPRISES.

A new industry is now being introduced at the head
of the valley of Napa, which will give easy employ-
ment to all the boys and girls, and contingently it will
support other new industries. It is but the beginning
of many others. Three miles below Calistoga is select-
ed as the site of a large factory for saving and canning
fruits and vegetables that now go to waste, and encour-
aging the production of more. In no part of Califor-
nia can these healthful elements of human food be cul-
tivated more cheaply or more abundantly. Considering
the depth of its rich soil, its prolonged season, and
the extraordinary vegetable growth in this country, one
acre may be considered equal to three elsewhere this in-
dustry is carried on in the Atlantic States. If irriga-
tion be wanted, artesian waterflow may surely be found
all along the valley, for it is backed by mountain
ranges full of living waters.

MINES:

GOLD AND SILVER AND QUICKSILVER.

Calistoga is the center also of a great mountain range
rich in mines of cinnabar and silver. Already its fur-
naces are producing mercury, and the product is in-
creasing yearly. A number of valuable mines are now
being profitably developed in the region around the
base of Mt. St. Helena, at Pine Flat, on the Great Gey-
ser road, and near Billie's Mill, on the Clear Lake road.
All of these are from ten to fifteen miles beyond Calis-

toga, to which point their products come, and from
which their supplies are carried. The deposits of cin-
nabar occur in well defined veins, and as they are now
being scientifically developed they bid fair to rival in
productiveness the celebrated mines of New Almaden.

CALISTOGA REAL ESTATE CO.

The splendid property above described, containing
2,082 acres, divided into town lots, suburban lots,
country seats, hotel property and farm tracts, has been
bought by the above named company, and is now
offered for sale to the public.

The Capital Stock of the Company is

\$1,000,000,

Divided into 20,000 Shares of \$50 Each.

The sale of a certain number of shares has been
authorized by the Board at the rate of

Twenty-five Cents on the Dollar, Making
12.50 Per Share.

By an arrangement between the former owner and
the present company, no portion of this land or the
proceeds of its sale, is consumed by expenses or in even
the smallest degree diverted from the use and benefit
of the stockholder.

Whoever buys Stock in the Company receives his
pro rata share of this property, with its Crops and
Rents in the meantime, without one cent of deduction
for expenses of any kind, even including Taxes. And

this, too, no matter how valuable the property shall
become.

Unlike the homestead schemes which have hereto-
fore attracted our people, this plan gives homes and
interests in and adjoining a town already built; where
trade and growth are already assured, and where daily
increase gives promise of greatly added values to all
its property. It is a division of this ripened heritage
that is now offered to the subscribers.

TRUSTEES:

E. W. BURR,
President Savings and Loan Society.

C. HARTSON,
President Bank of Napa.

J. B. FRISBIE,
President Vallejo Commercial Bank.

JULIUS WETZLAR,
Pres. Capital Savings Bank, Sacramento

COLONEL J. P. JACKSON,
San Francisco.

WILLIAM H. MARTIN,

GENERAL AGENT.

No. 1 Webb Street, cor. California, S. F.

PACIFIC RURAL PRESS

Volume IX.]

SAN FRANCISCO, SATURDAY, JUNE 19, 1875.

[Number 25.]

Buffalo Pitts Thresher.

One day last week, while passing along Front street, we saw in front of the store of Messrs. Baker & Hamilton, some of their men setting up two threshing machines, and knowing that our readers look to us to keep them posted on all the improvements that are being made in all the different kinds of harvesting and farming machinery, we concluded to stop and closely examine these machines. We soon saw that they were the genuine Buffalo Pitts Thresher, made by James Brayley, Buffalo, N. Y. They are mounted on substantial and easy running trucks, with a good sized wheel, enabling them to be hauled at least one horse lighter than the old fashioned machines. The machines we were examining seemed so light we should think two ordinary mustangs would be team enough to haul them around and still the machines seemed to be very substantially built, with heavy second growth ash frames, and all through them, whenever necessary, hard wood has been used in their construction.

We were surprised to see how near perfection they seem to have got these machines. They are as different as it is possible to make them from the threshers that were used five or six years ago. Every farmer knows what a great undertaking it is to harvest a large crop and then have it threshed by one of the old style machines, what a large force of men and horses came with them, and if many breakdowns occurred (and it was generally the case that a number did occur), how he wished the thresher anywhere but on his farm, but these old fashioned styles of machines are things of the past. With such threshers as we were looking at, the farmer knows he can calculate to a nicety just how long he would have to feed so many men and so many horses, and just how long it will take them to thresh out his entire crop.

While we were standing and thus cogitating upon the past methods of threshing, and watching the men complete setting up one of the Buffalo Pitts machines, Mr. Emery, head salesman in the agricultural department of the firm, stepped up to us, politely volunteering to give us any information regarding the improved Buffalo Pitts. He said the genuine separators and horse-powers of that make have been in the lead on this coast for the last seven years, being always two years in advance of any other make of machines in adopting thoroughly tested improvements. Mr. Emery further informed us that this was the result of the close study of Mr. Levi Bronson (from the Pitts Agricultural Works, Buffalo, N. Y.), who has visited this coast several times during the past seven years, has studied the wants, learned the defects, and applied to the "Pitts" the much needed improvements on the old styles of machines. The fan mill was shown to us and the manner in which it worked was explained. He said threshers who ran the Buffalo Pitts separator last year say that the

fan mill is as nearly perfect as it can possibly be made; instead of requiring more attention than any other part, as in most other machines, the fan mill requires little or none. They say that there is no necessity for poking the chaff from off the sieves, for none accumulates to poke off. While the grain is perfectly clean, none is blown away. All this is accomplished without the addition of one extra piece to add to the cost of keeping the machine in perfect order.

The end shake shoe is an improvement of which they are especially proud. By the substitution of an easy, noiseless end shake of the sieves, there is a great saving of power and wear, while there is no lateral motion of the machine. We were informed that this improvement has been thoroughly tested throughout all sections of the country, for the last two

it from springing, in case a bunch of matted grain gets away from the "feeder." In fact the manufacturers seem to have spared no expense in making their machine as perfect as it is possible to make a piece of machinery, and we think we have never seen anything in the threshing machine line surpassing them in handsome finish and material.

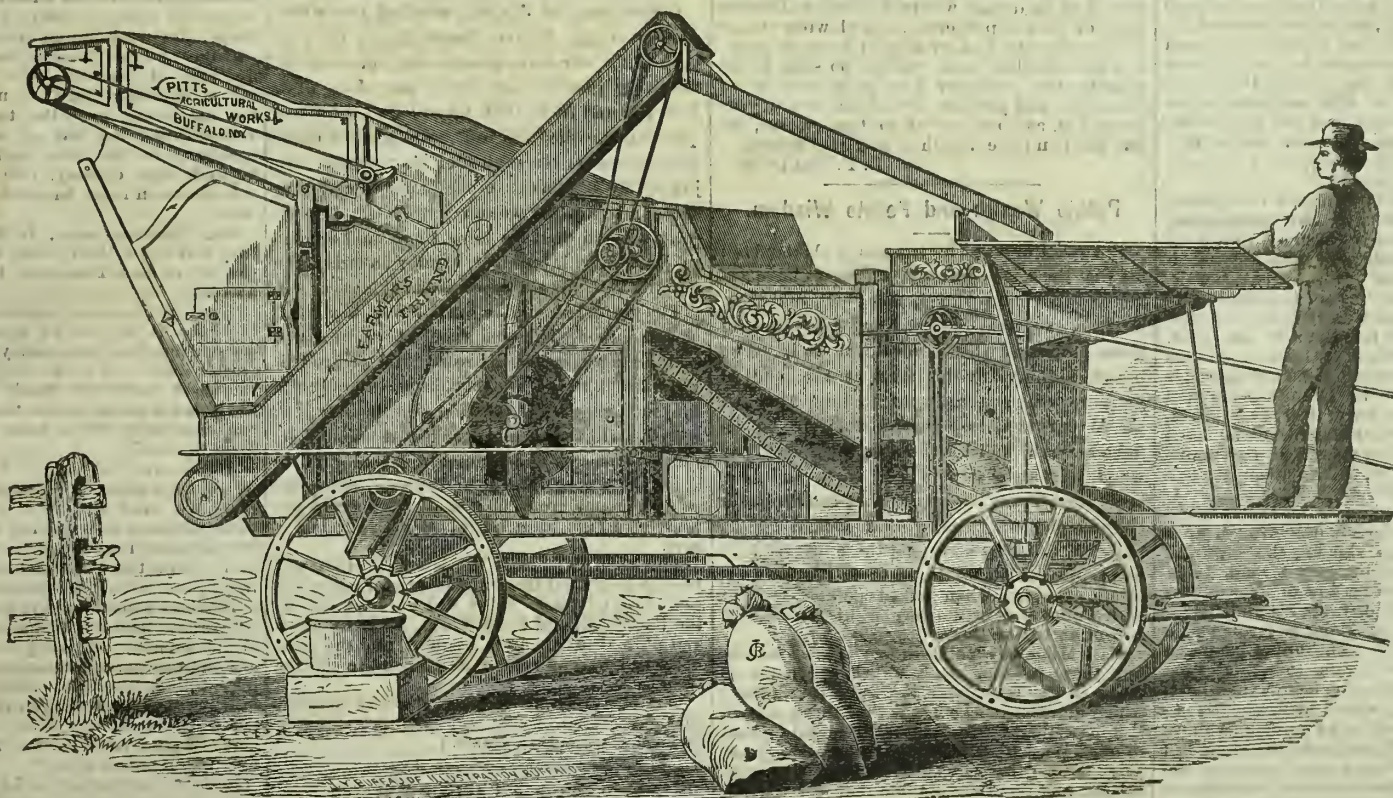
Messrs. Baker & Hamilton, of Sacramento and San Francisco, have the sole agency for both the genuine Buffalo Pitts Thresher and Horse Powers, which are mounted on substantial trucks, and can be moved from one setting to another without taking out the levers, and have patent brakes enabling the driver to stop his horses in a second, should occasion require him to do so. We think that it would be to the interest of all parties intending to purchase threshers this season to call on Baker & Ham-

A Wheel within a Wheel.

Those who write for the RURAL PRESS, and thereby do much toward increasing its usefulness, seem to thoroughly appreciate the position of the paper in regard to diversified farming, and exhibit in their correspondence a diversity of opinion, tastes and sentiments generally. Our readers must have noticed also that we are called upon to answer all kinds of questions. Sometimes the nature of the questions arouses a sort of suspicion that some of our fun loving correspondents are trying to "play" us; as, for instance, the following: A party asks "does the top of a wagon wheel turn faster than the bottom when the wheel is in motion?" Now we fancy we discover a wheel within a wheel here, and that the writer is after a bit of fun rather than a grain of "useful information." Still, after revolving this wagon wheel in our minds a proper length of time, we have concluded to accept the matter as "on the square" and get around it according to the best of our abilities. We may be particularly dull of comprehension, but we cannot see how there is any more propriety in asking this question, than whether the forward part of the aforesaid wagon moved faster than the hindmost part. Both cases are governed by the same laws of motion, and each part is, of course, governed by the movement of the other. It is not necessary to have any "top" or "bottom" parts to this question. You may just as well take the wagon wheel into your study, place it upon your table, mark two spots on opposite sides of the wheel, and then turn it around, and when it revolves see if one mark moves faster than the other.

Now is it necessary to confine your observations to a wagon wheel; take anything else that is round, a good looking young lady, for instance; stand her up in the center of the floor, take her in your arms, waltz around the room with her and then observe whether the silver door plate on the rear of her belt revolves any faster than the hinges in front. Or if you wish to adhere to the wagon wheel fancy you can consider her the hub of the wheel and then see if all the "fellers" don't revolve around her at about the same rate of speed; the only difference between this wheel and a wagon wheel being that in the former the fellers are near "tired."

THE FINEST CHERRIES YET.—Mr. Wm. C. Geiger, of Cherry Vale, sends to the RURAL PRESS a box of cherries of the Napoleon Blaireau and Black Tartarian varieties. We have shown these cherries to the seedsmen and fruit dealers along Sansome street, all parties complimenting them in the highest terms, as well they might, for they are really superb; and arriving as they did unbroken and not over ripe, we derived about as much satisfaction from showing them around as from eating them. Mr. G. says: "The fruit will speak for itself; being the result of patience, perseverance and hard work, under a proper system of farming and cultivation. Many thanks to our kind friend of Cherry Vale."



BUFFALO PITTS THRESHER.

seasons, and all who have seen it work declare it to be the most brilliant and successful improvement that has been made on threshing machines during the last twenty years. The manner in which they open or close the concaves (and it is done while the cylinder is in motion,) is simply "a twist of the wrist," and the concaves are raised or lowered as may be desired. It is done evenly throughout the whole length of the concaves. No one-side-at-a-time arrangement. It can be changed a hair's breadth or an inch, just as the "feeder" deems necessary, and moreover, where it is put it is sure to stay. We have been told that the Buffalo Pitts of last season were the only machines which could thresh the grain perfectly clean without cracking it, and at the same time thresh large quantities without clogging the sieves, thus enabling both the farmer and the thresher to make money—the farmer making money because his grain was being quickly and well threshed; the thresher making money because there were no break downs, no men to hire to keep the sieves clean, and no hunting for jobs. We think it is a pretty well established fact that the owner of a Buffalo Pitts machine has all the work he can do without soliciting any. The agitator in the straw carrier seems to be a perfect gem, and we cannot see how it is possible for any grain to escape and get into the straw pile. The cylinder shaft is all steel, whereas machines that have only the pivots or ends made of steel are liable to work loose, and we also noticed that the cylinder shaft has boxes not only at the ends or pivots, but also a box close to each head of the cylinder, thus preventing

ilton and examine their stock, and we can assure our readers that both they and their employees will take pleasure in showing their stock and giving all information with regard to threshers or any kinds of farming implements, of which they have a large and carefully selected stock.

DAMAGING RAINS—SUSPENSION OF HARVESTING.—The last week has been a bad one for the farmers. The rain storms of the 15th and 16th have caused serious damage to crops throughout the State. The accounts that come from various quarters are of remarkable uniformity. Hay has suffered most; large quantities were baled and stacked upon the ground, much of which will be spoiled. The uncut grain is beaten down and damaged to some extent and that in stacks is in a still worse condition. Dry feed and summer fallowed grain are also injured. Harvesting is generally suspended until the weather clears up; and when it is resumed it will be more irksome and wasteful on account of the lodged grain. Some crops, however, have been greatly benefited by the storms. Hops, tobacco, potatoes and corn will, no doubt, give a larger yield on account of these rains. Fruit is reported to be beaten from the trees to some extent, but the damage in this quarter will probably be slight. Much anxiety is felt concerning the extent of the damages from this unusual storm.

Dr. Thornton, of Kern county, expects to thresh 15,000 bushels of grain and cut 1,500 tons of hay from his farm this year.

CORRESPONDENCE.

Reclamation and Winter Flooding.

MESSES. EDITORS:—I say winter flooding instead of irrigation, as irrigation implies flooding lands in hot weather, which has two among other objections. First, in most cases it makes the soil hard like an adobe brick. Second, it makes the climate sickly. Winter flooding is clear of both objections, and can be accomplished with comparatively trifling cost, and can be carried out wherever rain falls, whether on mountain sides, rolling hills, on banks of creeks or rivers, or in large or small "basins," lying between and "below" their banks. I am no theorist merely, as I have carried this past year my long urged theories into practice; as what I have done on my home ranch can be carried out wherever rain falls on the earth, the same plan may be confidently spoken of as universal.

First and foremost, levees, to reclaim the lands and control the floods, must have been constructed. These I have first built, according to plans that the disasters I saw on the Mississippi and at Williamsburg and other places would dictate. I have also carried out my "pen" or winter flooding system with flood gates, canals and ditches, embankments with roads on top, all dirt taken on upper side, and so shallow that no land is lost. This insures a crop every year, as the laws of alluvion in forming valleys always raise the banks of streams the highest.

I think there may be said to be two modes of reclamation, or rather two classes of land to be reclaimed; the first class is between two water courses, like the Sacramento and Feather rivers, the other kind is that lying between the water course and hills. I think Sherman island or any body of land similarly situated should be one distinct by itself, as nature has made it. So of the Sacramento and Feather rivers and Chico creek basin with canal to run the water along foothills into the two rivers. But on the sides of rivers, next to hills settlements, we should give as much scope to floods as possible, and the levees on bank of stream next to hills should be made the lightest; then, if it should burst, it would do less harm.

I think levees should be built as far apart as outfall of banks will admit. The Sacramento, for instance, can be safely confined within ancient high banks of about a mile wide, until five miles above Colusa. From there down the banks are so sloping that it is necessary to conduct levees on immediate banks, with less than one-half as much fall as above that point, or width between levees of 400 feet and even inches fall to Knight's landing, and one mile wide and sixteen inches fall to the mile above that point and much the straightest river above. Therefore I conclude that many times as much water could be carried between reasonable levees above than below, at the town-ship line of sixteen and seventeen on river bank. At Simple bend there should be an embankment thrown up, down through the trough in a southwesterly direction, skirting the high and low land, which could be used for a drainage canal for foothills, and overflow of river to bay; a levee for swamp land districts 124 and 108 for a canal, to carry water along or through said levee into inside pens. The upper pens first to be flooded twelve hours, then water let through gates into next pens below, then next, and so on till the last, which, being the lowest, care should be used not to let into pens above any more than would soak into the ground of the lowest pen, or where ridges occur of too great a fall to be profitable to back water on to with levees; then the water should be let in on the highest point, and the ridge back-furrowed out, so as to spill the water over the highest ground in that pen, and levees below flood back the same water on the lower level of the same pen, thereby saving expense of building high levees. Then a half mile or so west a less levee, (possibly a railroad grade,) then between these two embankments, one-half mile apart, the extreme high floods could pass with safety on down, mostly on swamp land, thereby overcoming to a great extent the question of condemning a right of way which would only occur when crossing lands not already subject to overflow.

The land at Knight's Landing is claimed to be fifteen feet higher than the lowest point in the basin above, but water has run over said ridge at Knight's Landing into the still lower basin below. Two excavations should be made at end of the embankment above through the ridge and top of soil, between embankments on ridge plowed to a great depth, so that in case of a screamer of a flood that would not run through, the two excavations would be a vast power to provide itself with a larger carrying capacity by washing out said plowed mound. Thus far would all above Knight's be saved from both the hills and river floods as well; then reclamation and winter flooding would be accomplished and gophers be successfully "legislated" out of their holes. Then instead of malaria, mosquitoes, etc., vast fields of tobacco, cotton, rice, grain and vegetables of every description on earth would be grown in the greatest abundance.

What is true of this might be true of all other districts having high banks of streams for one side, and hills for the other. With Butte and

Dry creek turned into Feather river, and Chico creek turned into Sacramento river, the same plan with some slight variations would apply to Chico creek, Sacramento and Feather river basin. In this basin (as well as everywhere else) the water that runs in the basin should be used for winter flooding as described above, with out-flow ditch down through the center to drain low places and out-flow gates at Fromont; and as soon as the true wealth of the soil is appreciated the water in the lower end of basin might be pumped out by wheels running between two screws on the river, and connected with pumps inside of levees; or by wind-mills or even steam, as so profitably used to drain Harlem lake in Holland, which was reclaimed at a cost of more than seventy-five dollars per acre, and that lake even deeper than this basin. In this basin has been running to waste sufficient sloughs and creeks to have irrigated, or winter and "spring" flooded all this land in many times every year if properly directed, and where it is "best" to irrigate in "hot" weather on Chile clover, gardens, etc. I am deepening the present sloughs from the river with large locks through levees, sufficient to keep them running all the year around; and instead of floodgates, as in the past, I intend in future to construct canal locks to make use of the out-flow to supply locks in Butte creek canal for commerce as well as for irrigation. And even the embankment to turn Butte and Chico creek into the Sacramento and Feather rivers might be used for similar purposes.

Then might this basin flourish, if possible more than the west side basin; and neither injures the other. Cary and other enterprising land holders would continue same canal from Knight's Landing to Suisun bay, the west side canal would conquer the mosquito kingdom west of Sacramento city, and add it to the great and accumulated wealth of reclaimed lands of our Golden State. To this end all interests should work as harmonious as possible; instead of all working for selfish ends as in the past. The soil will not stand as much drouth as before vegetable mold was so much exhausted. Reclaimed lands require more water than high lands and winter flooding will return some of the lost properties, but plowing under to a good depth a heavy crop of weeds or grass, and then flooding same season if possible would remedy the evils our State is so anxious to overcome, and produce abundance every year instead of, as now, one fat to two starves, or one flood and one drouth to one good season.

L. F. MOULTON.

Potato Wealth and Potato Wisdom.

EDITORS PRESS:—The farmers of Oakland tell me that the soil hereabouts seems to have exhausted its potato wealth, and I believe it must be true, so great is my hunger for one of those globes of snowy meal, in their crisp, brown skins ready to burst at the gentlest pressure, which were wont to form the staples of our breakfasts when we were householders. Ah, well I remember the spring day when the "six best potatoes," early and late, came from Grant Thorburn, when the Professor cut and planted them while I looked admiringly on, thinking how good these first fruits of our young garden would taste in the long autumn evenings when baked potatoes served with a pitcher of cream may be enjoyed without fear of an indigestion.

Half Moon bay potatoes are good I admit, but they are not what we should consider prime in the East, and the great red tubers which glint the markets make me think of the "Robans" and "Cow Horns" we used to feed to our kine. Poor as our potatoes seem, I am sorry to hear that many crops are suffering from the rot, and this reminds me that we used to sift plaster over ours whenever we observed any signs of disease. With plaster and ashes plentifully applied we kept our Carters and Mercers when those who neglected this precaution failed entirely. The mechanical effect of dust is said to destroy mildew on many plants, but besides this we have in plaster the direct benefit of the sulphuric acid, which strengthens the plants and enables them to throw off the disease. If I were a farmer I should hate to give up the potato, and confess that we cannot make it pay as well here as elsewhere. We have little idea how much zeal and knowledge is applied to potato raising in the Eastern States. Almost any prize might be obtained in our markets for such prize potatoes as are described below. An award of prizes for the best crop of the best potatoes from one pound of seed, is reported in the Country Gentleman, of January 2d, under the head of "Potato crop extraordinary." The first prize for Extra Early Vermont, of \$100, was taken by Mr. Alfred K. Titus, of Wilmington, 708 pounds from one pound of seed of Compton's Surprise. Nine hundred pounds from one pound of seed was raised by P. C. Wood, of Esther, Illinois, for which \$100 was awarded. "Brownell's Beauty" gave Mr. H. C. Pearson 1,018 pounds from one pound of seed and \$100 prize. Equally liberal prizes were offered by the same parties at the same time for the largest quantity grown on one-fourth of an acre. Mr. D. Steck, of Hughesville, Pennsylvania, harvested of the Extra Early Vermont, 6,247 pounds, or 416 28-60 bushels. Mrs. M. A. Royce, Home, East Tennessee, of Compton's Surprise, harvested 7,350 pounds or 593 bushels, or over two thousand bushels to the acre. Mr. A. Rose, of Penn Yan, New York, of Brownell's Beauty,

harvested 8,899 pounds or 593 16-60 bushels!

I should like to experiment with one of each of these prize varieties; they should be of equal weight, laid side by side in a pretty hot oven. In twenty minutes I would pinch them gently, appreciatingly, if they were done, decisively. I would lay them in three small soup plates, open them and drop into their hearts six table-spoonfuls of cream, slightly salted and peppered. I would eat from each plate alternately, and when they were gone I would try to decide which was the best. A hundred dollars, forsooth, to Mrs. Royce, who is no doubt a Matron of the Patrons! She ought to have a thousand for the blessed example. I shall advocate a competitive examination of potatoes as just hinted at, under "Suggestion for the good of the Order," as applicable to harvest feasts, and that a suitable prize be given at the next State fair to the young lady who will exhibit the best cooked potatoes or the greatest variety of potato cooking performed by herself.

JEANNE C. CARR.

Flax Culture.

MESSES. EDITORS:—I hope you will pardon me for troubling you with a few enquiries in regard to the culture of flax. I make these enquiries because this information will greatly oblige the farmers and perhaps greatly increase the farming interest of this portion of the State. We wish to know the best mode of cutting flax; how much per acre must be sown; how much may be expected from each acre; how the flax is to be prepared for market and its probable value in market; how the seed can be separated from the pods and their probable value in market, and where this market for flax and flax seed can be found?

Many think that much of this portion of the State is well adapted to the culture of flax, and some slight tests have been made, sufficient to encourage further efforts.

Information on this subject will greatly oblige
J. P. JONES.
Visalia, May 30th, 1875.

[The culture of flax has received due attention from the RURAL PRESS during the past year and if our correspondent will procure the following numbers of our paper: Jan. 31st, Feb. 7th and 28th, 1874, he will find the above questions answered in full, besides much other information on the subject of flax culture. In justice to the many other subjects claiming space in this paper we can hardly afford to repeat so soon what we have there said on the subject; we will, however, answer in brief, the questions of our correspondent.

The ground should be well plowed, harrowed and smoothed. The seed should then be sown, and the ground again harrowed and well rolled. From thirty to fifty pounds of seed are required to the acre. In harvesting use header and reaper. If headed and stacked it should be threshed as soon as possible; if it is allowed to sweat it is very difficult to thresh. The yield is, on upland, from 600 to 1,000 pounds per acre; on adobe from 1,200 to 2,000 pounds per acre.

The seed delivered in San Francisco will readily command three and a quarter cents per pound on contract. Seed will be supplied by the Pacific Oil and Lead Works, perfectly clean and pure, at four cents per pound, and the company will wait and take its cost in the coming crop.

Our flax growing friends may rest assured that the RURAL PRESS will give this product due attention.—Eds. Press.]

Grasshopper Law in Russia.

MESSES. EDITORS:—Having resided in this country for two years (being a native from Russia), and having read many accounts about the unfortunate farmers in various States suffering from the attack of the grasshoppers, that I thought perhaps my suggestion of a Russian remedy may prove beneficial for the farmers, and therefore I take the liberty in asking you kindly to give a little space in your valuable columns for the following: In the southern parts of Russia, where farming is the principal business, the following law about grasshoppers is adopted by our government: Every land owner is obliged to send into Court yearly 100 grasshoppers (dead ones) to each acre of land owned by him; say, if John Smith owns ten acres of farming land, he is to bring on the 1st of August in the court 1,000 dead hoppers, and for every short one he is fined five cents. The poor classes are engaged in catching the hoppers, beginning in May, and sell them on the market, where they average about two cents apiece, thus giving an opportunity for farmers to buy them in case they fail to fulfill their taxes on them. No farmer is allowed to catch hoppers not on his own land. The method of catching them is very easy. They boil water on the field, and supply themselves with tin cans made especially for the purpose and fill them with boiling water, and then they hunt along the pace for the "nests"; they pour the water in the hole, which kills them, and after they pick them out with a hook. This keeps the hoppers decreasing yearly, until some years they have to appeal to the gov-

ernment to reduce the percentages, as there are none to be found. This would be the best and cheapest remedy for the farmers of this country to adopt.

Cloverdals, Sonoma county.

ALEXIS.

Calaveras Valley.

MESSES. EDITORS:—This valley is located in the Coast Range, about fifteen miles northeast from San Jose. In driving there by the way of Milpitas, we pass many nice houses with beautiful trees surroundings, orchards, nurseries and strawberry plantations—a good road through well improved lands. From Milpitas the road makes a bee line to the foothills, with level farm lands on each side, on some of which we noticed good crops. It seemed a pity to cut such a good field of wheat for hay as Mr. S. F. Ayers was mowing, but probably it pays as well as for grain, or he would not do it.

Soon after we strike the hills we pass through the pretty little Laguna valley, where we find the crops good—better, we are informed, than they were last year. Harvesting barley has already commenced. There are in this neighborhood two blacksmith shops, and several comfortable looking homes—that of Mr. Thos. Harrison especially attracted our attention. It looked so inviting, and the grade up to it was so smooth and easy of ascent, that we were tempted to drive up to it. For a quiet mountain home it is just the location, nestled away up under some fine old evergreen oak trees, the plain white house with its cool, shady porch fronting to the north, and its well laid out and neatly kept yard and garden in front, with its back ground of dark green trees, and many shaped brown colored hills, just such a picture as we might choose for a mountain home. While resting in the cool, shady porch, breathing in deeply the fresh mountain air, laden with the perfume of honeysuckles and roses, we had a fine view of the cozy little valley below and the surrounding hills; then, farther away to the northwest, over the tops of other intervening hills, the bay of San Francisco lay sparkling in the sun; and in the distance beyond, the dreamy, dim blue outlines of the mountain range that bounds the view to the west.

Mr. Harrison says, in fine clear weather they can sit in their porch and distinctly see the city of San Francisco, though fifty miles away.

The time is coming when such pretty mountain places, "up among the pines," so easy of access from the great valleys below, with their fresh mountain air, and cool clear water, where the finest fruits in the world can be grown, and the sweet flowers bloom the year round—the time is coming when such places will be in great demand.

A drive over the divide of two miles, over a well graded road, brought us to Calaveras valley. We were surprised to see all the grain fields on these hills looking so well, and when we got down into the valley, which is nearly all in grain, the wheat fields looked beautiful, thickly set, evenly and golden.

It seems almost a sin to convert this beautiful valley, with its rich soil, fine climate, and all the elements necessary to constitute a pleasant and prosperous community, as they have here, into a reservoir. Should this enterprise ever be carried out according to the plans proposed, the water will cover over about fifteen acres of good land, most of it to the depth of over one hundred feet.

Some of the farmers sold their places to the water company many months ago, and this movement has no doubt had a tendency to check improvements in the valley the last year. The settlers are generally well fixed, with good houses, out-buildings, orchards, vineyards, etc. Most of them are located very pleasantly on rising ground, overlooking the whole valley. Of those so located on the west side, their houses fronting the road, are J. T. Sherman, D. Campbell, N. R. Harris, and M. Pomeroy. W. S. Gains, J. S. Sherman and D. Wells live in the valley, and have good improvements; they are all patrons of the RURAL PRESS.

San Jose, June 7th.

G. W. M.

The Late Rain.

MESSES. EDITORS:—Last night Pluvius dispensed his liquid treasures with a liberal hand. About sunset his advent was heralded by distant thunder and the gloom of gathering clouds. Finally, vivid lightning gleamed athwart the sky, and the crash and rattle of heaven's artillery began. The rain was continuous during the night, and until ten o'clock this Sunday morning. The dry dust was wet down full three inches.

It is probable the grain stacks will suffer some, as heading commenced last week; but the benefit to our corn and potato crops will be great. Altogether the storm is so much out of season as to be remarkable.

The grain crops in this section are full up to the average; on the plains the yield will be heavier than usual. Fires are comfortable today.

G. C. HOLMAN.

Lockeford, San Joaquin Co., June 13th.

Silkworm Eggs and Cocoons.

EDITORS PRESS:—Thinking your paper to be the best medium on this coast to answer the many questions put to some of us in regard to certain branches of agriculture, and more particularly in my case, to silk culture, I will for the benefit of interested people at large give you some more information about said industry.

Though not wishing to repeat myself, for I have written in your paper many communications on silk growing in California, I will however say again that, in my opinion, the

Silkworm Eggs Business

Cannot be much of a business in this State, if not on the whole coast, as long as the present epidemic, known as pebrine, and which has been raging with more or less intensity in Europe for the last twenty-five years, will be in our midst. I have found out last year that such was the case in various parts of California, I therefore advised people to set aside their delusions about making quick fortunes by the sale of silkworm eggs, as it would certainly have been the case if our eggs had been healthy and free of the epidemic and could have succeeded in Europe as well as those obtained from Japan.

But as some of the interested parties, not only in California, but in some of the other States and Territories, as Utah and Arizona for instance, might be willing to try the experiment, I will tell them how to proceed.

Producing Eggs.

First, when the worms are done with spinning, the cocoons have to be left alone for twelve days, or in other words, they have to be gathered only a few days prior to the emerging of the moth, the latter coming out from its silky envelope seventeen to eighteen days after having gone to spin. The largest and finest cocoons have to be selected, the floss or loose silk being first stripped from the cocoons, which are then set in shallow boxes or on tables or the shelves upon which the worms are raised. The moths emerge at sunrise, between six and eight o'clock in the morning, the male immediately seeking the female for the purpose of reproduction. They have to be gently taken up by the wings and set on a table to be paired. They are kept so for twelve hours, the room being made dark, for the silkworm moth is a night butterfly. After separating the moths, the female is taken to the cloth or paper hanging along the wall or anywhere in the room in a vertical position, and upon which she will soon deposit her eggs.

Cloth, pasteboard and paper are used to gather the eggs. The Japanese employ pasteboard and make cards ten inches by twelve, large enough to hold an ounce of eggs, that is what is called a carton. At the present time, France and Italy import annually about 1,600,000 of such cartons, the price they have to pay for them varying between one and three dollars.

After being laid by the female, the eggs have to be left untouched in the same room till shipping time, or if to be raised in the country, till the weather gets too warm in January or February; they then have to be taken down to a cool and dry cellar, out of the reach of rats and mice. But no matter how hot it is in the room where the eggs have been laid, they have to be kept there all through the summer, fall and winter. Sometimes a few eggs will hatch, but it must not be minded.

The best time for shipping silkworm eggs is between August and the first of January.

There are various ways of packing silkworm eggs; it might be done, if cartons, in boxes with little racks on the side to hold the cartons, so that they will not lay on top of each other when the box is laid flat on the side. When shipped, it must be recommended to have the box stored so that it lays on either end; that way the cartons will stand in a vertical position.

Sale of Eggs in Europe.

It is very difficult to find a market on the first year of the introduction of eggs from a new source of supply. Eggs have to be tested first, and if found to do well, it would be easy then, not only to find a ready sale for them, but a great deal of money could be made too by it. Otherwise, buyers and raisers in Europe are very cautious and slow in buying eggs from a new country. Those from Japan are the only ones that have stood well the longest test, and it is yet the main, if not the only source, of supply.

As to cocoons and the best way of finding a market for their sale, I have nothing to add to what I have already said in several communications to the *RURAL*, and to which I refer your readers anxious or desirous of such information. Let us have flatures to reel our cocoons into grege or raw silk, and a market will be found. Yours very truly,

FELIX GILLET.

Nevada City, June 12th, 1875.

ABOUT VINEGAR.—It was an observation made by Scheele, but the fact has recently been published as a new discovery, that ordinary brown vinegar will keep bright and clear for any length of time if heated to the boiling point for a few minutes.

SHEEP AND WOOL.

Sheep Raising.

[By COL. E. S. STOWELL.—Continued.]

America's First Merinos.

The first importation of sheep of any importance into the United States were French, in 1802, by Chancellor Livingston, American Minister to France. They bore not much resemblance to the modern French, and were probably genuine Spanish merinos before changed in form and constitution by the French system of breeding and culture. So successful was Mr. Livingston that he sold ram lambs of his own breeding, in 1810, for \$1,000 each, and sheared from a full blood ewe the enormous fleece of eight pounds twelve ounces, and from a yearling ram of his own breeding, eleven pounds eleven ounces of wool in the grease, nearly three pounds more than from the heaviest shearing of his imported stock.

Later in the year 1802, Col. Humphrey, American Minister to Spain, brought home to this country twenty-one rams and seventy ewes, purchased for him in the best cabanos of *Leouresa Transhu mantos* of Spain, supposed to be the *Infantado*. These cabanos, or families such as *Infantado*, *Pauler*, *Gaudeloupe*, *Nigretti*, *Escorial*, *Aiguerras*, *Montraco*, *Arriza*, etc., were subdivisions of the choice *Transhu mantos* of *Estramadura* and *Leon*, and presented characteristics indicative of the peculiar tastes and skill of their owners and breeders, from whom they took their names.

"In 1809 and 1810," says Randall, "Mr. Jarvis, Consul at Lisbon, Portugal, taking advantage of the offers of the Spanish nobles, bought and shipped to different ports in the United States three thousand eight hundred and fifty sheep. About 1,300 of these were *Aiguerras*, 200 *Escorials* and 200 *Montracos*. The remainder consisted of *Paulers* and *Nigretti*, mostly of the former."

At this period merino sheep bore a very high price, as has before been remarked of Chancellor Livingston's; \$100 per head was not uncommon. It is related in the life of Consul Jarvis, by his daughter, "that one morning at breakfast a letter from his agent was handed her father, relating to the sale of a little bunch of sheep, that were not to be sold under \$200 each, but much to his chagrin, in his hasty perusal he read the lot had been sold for \$1,500, but a trifle over \$100 per head. More careful reading afterward showed, and to his surprise, the price to have been \$15,000."

Andrew Cock, of Flushing, Long Island, in 1811, paid to Richard Crowningshield, importer, \$1,100 per head for two ewes of the *Escorial* cabana. The major part of his flock were from the *Pauler*, and purchased at from \$50 to \$100, in the same year.

In 1815 the treaty of Ghent removed the embargo, re-opened commerce, admitting cheap labor manufactured foreign goods free, thus destroying the manufacturing industry of our own country, and with that, as in Spain, away went sheep. Randall says: "Such revulsion ensued that before the close of the year full-blooded merino sheep were sold for one dollar per head. Wool did not materially rally in price for the nine succeeding years, and during that period most of the full-blood flocks of the country were broken up or adulterated."

The woolen tariff of 1824 gave new life to the production of fine wool, and for five years Saxon merinos were largely imported into the United States. As many as 1,700 were brought into the port of Boston alone, and nearly or quite as many more into others. Some of them, selling as high as \$400 to \$450, were of fine blood, but very many were of low grade, and the great majority were miserable "stop sale sheep," as the were called in Germany, and brought along with them scab and foot rot, and from all accounts about all the ills that the merino race are heir to.

These sheep sheared a fleece of fine soft, downy wool of from two to three pounds, but so destitute of oil that the ordinary exposure of this country would cause the wool to "cot" on the sheep's back, and the ends to become dead and dry. Such wool "flies" and wastes in the manufacture.

Eastern Wool Markets.

NEW YORK, July 12.—There is no settled improvement in the wool market. Manufacturers, owing to the depressed condition of goods, continue to pursue the hand-to-mouth policy, buying only as occasion requires. This state of things has existed since the year set in, and both dealers and manufacturers make no attempt to prophesy regarding the course of the future. Spring California meets with some demand, but sales generally are made at prices somewhat below regular market quotations. Fall California is quiet but firm. Some little excitement was created during the week by the reported failure of the *Bucking* wool and leather company, together with the well known firm of *Strong & Holland*. In the former case it turns out that the manager alone, Mr. Henry *Bucking*, had suspended, and he being connected largely with the latter concern also forced them to suspend. The liabilities are not reported in either case. Sales for the week were: 70,000 pounds Australian, at 48 $\frac{1}{2}$ ¢; 136 bales Cape, at 35¢; 10,000 pounds Mexican, at 22 $\frac{1}{2}$ ¢; and 150 bales washed Donskoi and 200 do., greasy do., on private terms; 50,000 pounds Eastern Texas at 20 $\frac{1}{2}$ ¢; 30,000 pounds Western do., at 24 $\frac{1}{2}$ ¢; 390 bales new spring

California, 29 $\frac{1}{2}$ ¢; 100 do. old do., private; 200 bags scoured fall, 60 $\frac{1}{2}$ ¢; 1,000 pounds lambs', 26¢; 20,000 pounds barks', 22 $\frac{1}{2}$ ¢; 25,000 pounds Georgia, 38 $\frac{1}{2}$ ¢; 50,000 pounds new West Virginia fleeces, 52¢; 200 pounds old Michigan do., 51¢; 1,000 pounds fine unwashed Western do., 35¢; and 12,000 pounds medium do., 15,000 pounds unwashed combing, 15,000 pounds Kentucky delaine, and 3,000 pounds Ohio, on private terms; 40 bags combing pulled 54 $\frac{1}{2}$ ¢; 15,000 pounds super, do., 48 $\frac{1}{2}$ ¢; and 20 do. lambs'; 35 do., No. 1, and 25 do., No. 2, on private terms.

Boston, June 12.—There is no material change in the wool market. There is considerable inquiry for combing and delaine fleeces, but prices are settling down and sales can only be made at concessions. There is a good stock of new Kentucky combing on hand, for which holders ask 50 cents; but 46 $\frac{1}{2}$ ¢ is all that could be obtained for it, if forced on the market now. Very choice lots brought 50 cents; but the principal transactions of the week were understood to be at 47 cents, and this may be considered a fair quotation for average lots. The market has, in fact, become rather dull for combing and delaine fleeces, and holders are already beginning to feel that the prices paid for this description in the interior were altogether too high. At the same time the consumption of medium and combing grades is still quite large, and if a few leading buyers would enter the market and purchase any considerable quantity a favorable change would soon take place. Transactions in Californian embrace 721,000 pounds, and holders are disposed to place the new clip as fast as possible. The range of prices indicates no material change, but concessions are made to effect sales, and prices are taken now that would not have been considered a few weeks ago. Sales of spring have been at 27 $\frac{1}{2}$ ¢; and of fall at 16 $\frac{1}{2}$ ¢; but a fair quotation for good and choice lots of spring is from 30 to 35¢, and anything that brings an advance on the latter price must be of a very superior quality. Pulled wools have been sold to a fair extent, sales of the week comprising 176,000 pounds; but the demand is falling off, and a quiet market is expected. There have been sales of Ohio fleeces at 48 $\frac{1}{2}$ ¢; Michigan fleeces, 48 $\frac{1}{2}$ ¢; New Hampshire and Western fleeces, 46 $\frac{1}{2}$ ¢; combing and delaine fleeces, 52 $\frac{1}{2}$ ¢; 60¢; unwashed combing and delaine, 42 $\frac{1}{2}$ ¢; 50¢; scoured, 55 $\frac{1}{2}$ ¢; tub, 57¢; super and extra pulled, 40 $\frac{1}{2}$ ¢; California Spring, 27 $\frac{1}{2}$ ¢; do. Fall, 16 $\frac{1}{2}$ ¢.—Call.

What it Will Amount To.

Few people have an idea, unless they have had occasion to look into the matter, of the sum to which a regular saving, however small, each day will amount to in a term of years when invested at compound interest. The following table shows what would be the result at the end of fifty years, by saving a certain amount each day, and putting it at interest at the low rate of six per cent.

Daily saving.	The result.
One cent.....	\$ 350 00
Ten cents.....	3,504 00
Twenty cents.....	19,008 00
Thirty cents.....	28,512 00
Forty cents.....	38,016 00
Fifty cents.....	47,520 00
Sixty cents.....	57,024 00
Seventy cents.....	66,528 00
Eighty cents.....	76,032 00
Ninety cents.....	85,536 00
One dollar.....	95,040 00
Five Dollars.....	475,200 00

At the average rate of interest paid by our California savings banks, these sums would be nearly doubled. This table is worthy of careful study. It conveys a very important lesson to everybody, and especially to the young men of the present age.

WHAT BECOMES OF DRIFT COAL.—Dr. Kane, in his arctic explorations, found beds of lignite, or brown coal, that were smouldering along their edges, having evidently been fired by spontaneous combustion; which leads to the deduction that the coal along the axes of anticlinal axes of the Mississippi valley coal fields was consumed as the abrasion of the valleys of the Ohio, Missouri, and Mississippi commenced and the coal veins were exposed; that these, fired by spontaneous combustion, smouldered as the cutting down of these valleys progressed.

FOR THE HORSES.—A patent has recently been granted for a method of refreshing horses while in harness, which consists in making the bit hollow, and having perforations in it. A rubber tube extends from one side of the bit to the carriage, and by pressing a rubber bag which contains water, the driver is enabled to refresh his horse whenever he chooses without stopping. For saddle horses the water bag is suspended from the horse's neck, or upon the pommel of the saddle.

TO CLEAN GOLD CHAINS.—Put the chain in a small glass bottle with warm water, a little tooth powder and some soap. Cork the bottle and shake it for a minute violently. The friction against the glass polishes the gold, and the soap and chalk extract every particle of dirt and grease from the interstices of a chain of the most intricate pattern; rinse it in clear cold water, wipe with a towel, and the polish will surprise you.

NEXT year will be our centennial. The Japanese have already celebrated their 2535th anniversary.

USEFUL INFORMATION.

Cheap Amethysts.

There is no necessity of wearing violet colored pieces of glass made to imitate amethyst jewelry, as the genuine article is now quite cheap. The large number of amethysts that have been thrown into the market since 1872, from Brazil, has caused a great depreciation in their value. The first lots sent to Europe brought from \$500 to \$600 per arroba, of thirty-two pounds weight; but as the quantity increased the price rapidly receded, and finally decreased to absolutely nothing. At present no offer can be obtained for any lots on hand.

The glass imitation loses its polish very soon, and thus shows its utter worthlessness, while the real article, consisting as it does of quartz crystals colored by manganese, is so hard that it will never lose its polish.

Perhaps some of our readers would like to know how to recognize the genuine from the imitation: look at the stone through a magnifying glass, and if you see the least air bubble, it is glass. No real gem of whatever kind ever shows an air bubble. If there is no air bubble, it may be taken as genuine. However as there are sometimes small pieces of glass without air bubbles, a decisive test is necessary. This consists in the use of a piece of an old file: if this will scratch the gem it is glass, if it does not scratch it, it is amethyst, as this is harder than steel, while glass is always softer.

BOYTON'S LIFE SAVING DRESS.—The inventor of the life-saving dress recently so successfully tested by Captain Paul Boyton is M. C. S. Merrimen, of New York City. It is of solid vulcanized rubber made in two parts—a tunic with hood and gloves attached, and pantaloons with boots attached. The dress is secured by a water tight joint at the waist and only the eyes, mouth and nose are exposed. It is inflated by means of five small tubes, which can be reached conveniently. When the upper chamber is inflated it makes a complete air pillow, upon which the head can rest. The wearer is kept dry and comfortable. Swimming is impossible; but he lies easily upon his back, and propels himself in any direction by means of a double-bladed paddle. A small India rubber bag contains provisions and a few needful articles.

UTILIZING OLD RUBBER.—A new industry has just sprung up in Northborough, Mass. Old rubber boots, shoes, blankets, etc., are collected, ground up and manufactured into cloth. In connection with the above we clip the following from the query column of the *Scientific American*: A young man has lately experimented on vulcanized rubber (old shoes, etc.), and has obtained (by the action of certain reagents) several substances of different colors. I send you samples of five of those colors. What do you think about them? Ans: May not the colors be due to the substances put in, and not to the bodies gotten out by the various reagents? For example, the brilliant yellow color on examination proved to be chromate of lead, which certainly does not exist in old rubber shoes.

PLATING WITH ALUMINUM.—According to John A. Jeancon, of Newport, Ky., metal surfaces may be plated with aluminum by the following process with great facility: Dissolve any desired quantity of a salt of aluminum, such as the sulphate, muriate, nitrate, acetate, cyanide, etc., in distilled water, and concentrate the solution to 20° Beaume, (at 50° Fahrenheit) in a suitable vessel to hold the article to be plated. The battery to be used should either be four pairs of Smee's zinc-platinum, or three of Bunsen's zinc-carbon, with the elements connected for intensity, and a plate of aluminum attached to the negative wire. The solution should be slightly acidulated with its appropriate acid, heated to 140° Fahrenheit, and kept at that temperature during the operation.

TO REMOVE A TIGHT FINGER-RING.—In case a finger-ring becomes too tight to pass the joint of the finger, the finger should be first held in cold water to reduce any swelling or inflammation. Then wrap a rag soaked in hot water around the ring to expand the metal, and lastly soak the finger. A needle threaded with strong silk can then be passed between the ring and finger, and a person holding the two ends and pulling the silk, while sliding it around the periphery of the ring, will remove the latter. Another method is to pass a piece of sewing silk under the ring, and wind the thread in pretty close spiral and closely around the finger to the end—that below the ring—and begin unwinding.

UNITING GLASS TO IRON.—The invention of Mr. J. Hartley, of Ormskirk, consists in the uniting glass to iron and other materials by means of a preparation named *glazone*, in order to render glass available for various general useful purposes in which it has not hitherto been employed, by a process of supplying it with uniform attachment to and support by the iron and other materials to which it may be united, and thereby redning its liability to fracture when subject to pressure and concussion, and entirely removing its liability to conchoidal fracture.

AQUAFORTIS, applied to the surface of steel, produces a black spot; on iron the metal remains clean.

PATRONS OF HUSBANDRY.

THE HEADQUARTERS of the California State Grange are at No. 6 Liedendorff street, in rear of the Grangers' Bank of California, No. 415 California street San Francisco.

The Rural Press and the Grangers in Montana Territory.

EDITORS PRESS.—I would not be without the Press on any account—the best Granger and farmer paper now published that I know of—and I never will be without it if favored as I have been in the past. We, the farmers of Montana, have organized ourselves in the farmers (Grangers) movement. H. H. MOORE. Bozeman, M. T., December 27, 1874.

Secretaries will be supplied with a printed list of subscribers for this paper upon sending a list of their offices within the range of their Grange. Also with blank report, etc., for clubs.

Grange Directory.—A full list of officers of the State Grange, Deputies, names of Councils, Subordinate Granges, Masters and Secretaries will appear in this department on the last Saturday of this month.

MANUAL OF JURISPRUDENCE AND CO-OPERATION OF THE P. OF H.—This valuable work of 200 pages, by A. B. Smedley, Master of Iowa State Grange, should be read by every patron. Price, \$1.25. Now on hand at this office.

History of the Patrons of Husbandry.

"Origin and Progress of the Patrons of Husbandry" is the title of a work just published by J. A. Wagnerseller, of Philadelphia, a copy of which has been laid upon our table. This volume, a work of 450 pages, has been prepared by O. H. Kelley, Secretary of the National Grange, P. of H. It gives a history of the Order from its inception in 1866 to the time of the permanent establishment of the National Grange in January, 1873, and constitutes the only complete and reliable history of this remarkable organization which has yet been published. The book tells, mainly through the medium of letters, official documents, etc., just who did the work, and how they did it; records fully the trials, doubts and hopes of the originators during the months and years of its early growth from 1866 until its success was finally assured at the close of 1870. The letters and documents given settle many disputed points in the history of the Order, and record many valuable facts and opinions gathered from correspondence from all parts of the country.

To a patron the work is one of intense interest. As we have turned over its pages even in a first hasty perusal, we have been completely carried along in sympathy with the noble band of workers who set this ball in motion. Those early, cheerless years of severe mental and physical labors, with their disappointments, privations and hardships, would have effectually disheartened any ordinary set of men. While all are deserving of much credit for their perseverance, it seems apparent that if the chief labor had fallen upon any one other of the band than the author of the work before us, it would scarcely have been prosecuted to a successful issue. This fact is made to appear, not from anything which the author has written, but from the correspondence of his associates, which he has been compelled to weave into the narrative, in order to most effectually place before the reader an official and truthful history of the events which he has undertaken to narrate.

The history of the inception of the Order as detailed, and the gradual growth of its beautiful ritual and work, gathered here and there from many minds in various parts of the country, is fully given by extracts from letters in which each individual receives full credit for whatever he contributed. As will be seen on perusal of the book, the author has made the various correspondents, while building up the Order, unwittingly write its early history in their daily letters. No history could be more simple or more reliable.

No possible effort seems to have been spared by its founders, among whom were both Masons and Odd Fellows, to render the work of the Patrons as perfect as possible. Their study seems to have been to make everything about it brief, impressive and dignified. The aim was to give the members of this Order all which masonry or odd fellowship secures, and valuable, practical knowledge besides. While other Orders are only speculative the aim has been to make this one operative. While others were symbolic this was to be real. How well the founders succeeded is left for those who are members of all these Orders to judge.

The unprecedented success which this organization has met with was fully anticipated by at least several of its friends, as their early letters published in this book fully show. Before even a dozen Granges had been organized Brother Kelley wrote as follows: "From present indications no Order ever existed which will create such a furor as the Patrons will. I hope to see the time when the convening of the National Grange will be as great an event as can take place on this continent."

The near realization of such exalted hopes must be a source of the highest gratification to those early workers, and an unwonted satisfaction must be derived from the actual knowledge that those earlier years of toil and sacrifice have already contributed many of their happiest hours to thousands of farmers' families, besides otherwise securing to them most im-

portant benefits in the way of education and pecuniary gain.

The volume before us is thoroughly interesting from beginning to end. It should be read not only by every Patron, but by every young man or woman just starting in life, as an evidence of what seeming impossibilities may be overcome by industry and perseverance. The book is well printed on good paper, and will be sent by mail, post-paid, for \$1.75 currency. Orders with money enclosed, if sent to O. H. Kelley, Secretary National Grange, Washington, D. C., will be promptly filled. An illustrated edition will be issued in July, which will be furnished at \$2.

Since the above was in type we have received a letter from Bro. Wright, which is published in another column, from which it will be seen that he has been appointed agent for the book on this coast.

Origin and Progress of the Grange.

MESSRS. EDITORS:—No one feature of our great Order, incident to its wonderful growth, which still continues at a healthy pace, and no one evidence of the solid improvement it begets among farmers in general, is more marked than the increased desire among our members for mental culture, more general reading and full and reliable information concerning all that bears upon our noble

Profession of Agriculture.

Whatever tends to this is a good work and is hailed with delight by our zealous, devoted membership.

To satisfy this want some Granges in California and elsewhere are already providing for Grange libraries and reading rooms. This increased taste and demand for reading is gradually producing a new style of literary works, particularly adapted to Grange wants. Some of these have in view the development of agricultural knowledge, improvement in systems of culture, the elevation of agriculture to the honorable profession it should be, and the advancement of farmers as useful citizens; while others propose to give us accurate information about the rise and growth of the Grange, and to answer as satisfactorily as possible the question which for twelve months past or more has so greatly stirred American society, and readers and thinkers generally, viz., whence came this grand upheaval of the farmers and their friends, and

What Does it Mean?

Public expectation has long "been on tip-toe" awaiting the authentic work on this subject by O. H. Kelley, Worthy Secretary of the National Grange, who, beyond question, deserves, more than any one man, to be known as the founder of our Order.

This most reliable of all Grange histories that have yet appeared, is at last in press, to be issued with illustrations in July at two dollars (\$2.00) per copy. It is in one volume of 450 pages.

Our Worthy Brother has very generously made me the agent for his interesting and valuable book on this coast, and I wish in this letter to explain the nature of the work to our fellow Patrons in California, Oregon, Washington, Nevada and Idaho, and to solicit as early orders for it as practicable from all who wish to secure it. The book is for the information of outsiders as well as our members.

I beg leave to suggest that in each Grange in the States and Territories mentioned, the Secretaries make out lists of those wishing them, whether members or outsiders, and forward them to me at Borden, Fresno county, California. These orders I shall combine and send to Brother Kelley, and will see that the books are forwarded in bulk to each Grange.

Have the name of each postoffice and Secretary written distinctly, that

No Mistakes May Occur.

As soon as the books are received by each Grange, let the Secretary collect the money and send it to me by express, or by its equivalent postoffice order, and I shall forward the money in bulk to Brother Kelley.

By this plan trouble, expense, and uncertainty will be avoided.

Fellow Patrons and friends who will send me their orders will not only secure a valuable addition to their libraries, but will aid me through this agency to weather a financial storm brought upon me by an almost total failure of more than six hundred acres of wheat and barley. This disaster to me is caused by another dry season, but especially by the unjust discrimination against me of a canal monopoly which denied to me the use of any water to save any portion of my crop, though my neighbors generally were permitted to irrigate for from five to twenty days or more, and to save much of their grain. This

Unfair Discrimination

Undoubtedly arose from their enmity towards the Grange movement and towards those who have taken an active part to introduce and maintain its principles.

What clearer proof than such an instance as this, in real life, that our State, and every other, should have efficient laws compelling all corporations for irrigation, or any other public service, to be just, or to be subject to suits for damages to those they injure.

This is peculiarly true, where a State like

ours has been so generous as to grant to irrigation companies the use of its waters to be brought out upon our fertile plains and make them productive. Its laws should provide that each of its citizens, no matter how poor, humble, and defenseless he may be, shall receive his just proportion of the water and be protected in all his just rights. Otherwise, we establish petty tyrannies in our free and model republic worse than George III. tried to fasten on our forefathers a hundred years ago.

But excuse me, I am digressing. The thought, however, is enough to make a man digress.

I hope to receive as many orders for Secretary Kelley's admirable work as its excellence deserves. In a future letter I propose to call attention to other first class Grange publications which have appeared, or which are soon to be issued. None of them will conflict with Brother Kelley's, for the reason that his covers ground which others do not cover, and he has data for writing such a Grange history which no other member of our Order possesses.

Yours Fraternally, J. W. A. WRIGHT.

Borden, June 14, 1875.

Are Co-operative Stores to be Successful.

Start a co-operative store in any county seat, with an ample capital and good honest business talent to manage it. Such an establishment would succeed, you say. Yes, if the men who are working it have the nerve to stand up against a peculiar kind of competition that will greet them at the outset. This competition is indeed very peculiar, and will try any one who comes in contact with it. To illustrate, —last summer salt was sold in town at a pretty high figure, and one of the Granges concluded to ship in a car-load, and did so, getting it considerably below what it had been sold for here, but at a price perhaps not quite so low as it was at once offered for by nearly every grocer in town. In fact, salt suddenly became very cheap, although we did not hear that there had been any decline in the prices at the wells. And funny to tell were the numerous queer yarns that we heard relative to this car load of salt—how the salt had got wet, had lost its flavor, was dirty, etc.

So when a store is started, whatever line of goods are kept in it, we naturally expect to find that other merchants will proceed at once to undersell their former prices, while they point out to the unsophisticated the fact that they are able to sell as cheap as the Grange store, and then they will say there is no need of a Grange store. Of course where these large reductions are made on the opening of a Grange store, we naturally conclude that the former prices were too high, which is probably true. But there is usually a better conclusion to make, and that is that the object is to cause the co-operative stores to fail, by drawing from them the trade of weak-kneed men, and causing them to appear unnecessary and thus to weaken their promoters.

The lesson is that a reduction in prices should not be allowed to draw away the legitimate patrons of a co-operative store by observing they will not have a fair showing or must fail. They can succeed, but they must be treated right or they will fail. Stand by them through thick and thin if you start, but if you are not willing to do so, don't start.—American Patron.

LOCATING NATIONAL GRANGE HEADQUARTERS.

—The sub-committee of the National Grange are now visiting the principal points in the Western States, with the view of receiving definite propositions from the citizens of the business centers in each who desire to secure the location of the permanent headquarters of the National Grange. The committee, consisting of Col. E. K. Shankland, of Dubuque, Iowa, and Judge Jones, of Barton, Ark., first visited Booneville, where they received from Col. Joseph L. Stephens a proposition to let them have, free of rent for ten years, Theopian hall, a building costing \$40,000, and to fit it up as desired free of cost.

CORRECTIONS.—Brother Wright informs us of the following typographical errors in his letter published in the Press of June 12th: On page 388, last column, 12th line, "kind illusions," should be "kind allusions;" in same column "San Bernardino" should be "San Bernardo;" for "San Obispo," read "San Luis Obispo." In a former letter he speaks of fourteen inch oranges as being grown in "San Buenaventura;" it should be "San Bernardino."

ON HAND.—We have received a supply of the "Manual of Jurisprudence and Co-operation of the Patrons of Husbandry," by A. B. Smedley. Among other favorable notices of the work we find the following in the Colorado Farmer: "This work is meeting with general favor from the Order everywhere. We see the most flattering notices from Grange papers and eminent Patrons. It is a work much needed, and fills the bill exactly."

One pleasant feature of most reports from Granges, State, County or Subordinate, is their modesty. Very generally there is a hearty acknowledgment of the greater progress made by others.

A "Grange Life and Health insurance company of the United States of America," has been organized in Alabama. It seems that it has no connection whatever with the Order.

POPE VALLEY GRANGE.—The hall of this Grange was dedicated last Saturday, members from various Granges being present.

What Will They Do?

Few, probably, realize the immense power for good or evil that lies dormant in the Order of the Patrons of Husbandry.

The Order to-day contains over 22,000 Granges, with a membership of over one and a quarter millions. This vast army is thoroughly officered and working with remarkable harmony for a common object. But its power and influence consists not alone in its numerical strength. The alms-houses, penitentiaries, grog shops gambling dens, brothels, the filthy back streets, have not a representative in its ranks. None of its members live in palaces; none have offices on Wall street; none are railroad presidents; and none chase folly at Saratoga, or fashion at Paris.

Almost every member of this agricultural army is a freeholder, a fixtured, the owner of a portion of the base of the prosperity of the country. It represents the great, sober, honest, respectable, anti-shoddy middle class of the nation. Its skirts are not filthy with respectable larceny or fashionable bribery; nor its whiskers white with the sucking of party tests. It holds the very lives of the people in its hands. It controls the flour barrel and the wardrobe. Let this Order lock up its wheat and corn, and withhold its wool and cotton, and in six months the people from Portland to San Francisco will be starving and freezing.

Here is a glimpse of the power of the Patrons of Husbandry. Now what does it propose to do about it? If it was an Order of the poor and ignorant, such as you might rake up in the large cities, it would be almost sure to prove an unmitigated curse. But the safety of the nation consists in the standing of its members. Should this Order see fit to answer the sneers and abuses of the army of middlemen, who feed off their hard earned products, and blot the word retail out of their dictionary, in twelve months the principal streets in our cities would be as lonely as Sodom. But they don't propose to invoke the *lex talionis*. They want to better their own condition, not by robbing somebody else, but by taking care that nobody robs them. They have rebelled against unconscionable profits on what they buy, and unreasonable commissions on what they sell. They don't believe that the man who hands the grain over to the consumer should have the grist, and he whose sweat produced the crop, only the toil.

They mean further to cultivate their intellectual and social faculties—learn something, as well as earn something. They may have much to do before they can reach the point where they can say, "We, as a class, are as intelligent as the best," and they are doing it rapidly. We shouldn't be surprised if, in process of time, they should get strong enough and rich enough so they can afford to give, for a week, rest to the weevils, and make it hot for the devils. It wouldn't be strange if, eventually, they should become so inquisitive and impertinent as to ask the great ruling class what becomes of the taxes they pay, should they, one of these years, take upon themselves the dirty job of cleaning out the filthy official stables about our National and State capitols, none but rascals would mourn.—A. G. in *Prairie Farmer*.

California Farmers' Mutual Life Insurance Company.

Bro. J. D. Blanchar, President of this company has recently visited Butte and Colusa counties, and the Colusa Sun speaks of his visit and the company as follows:

J. D. Blanchar, the President of the California Farmers' Mutual Fire Insurance Association, was in town last Tuesday on business connected with the association. We are pleased to learn that the company has had unprecedented success since its incorporation. It is well known that the other companies have had to carry extra conflagration risks and that they have made country property, where there was no such risk, pay part of it, but through this association the farmers of this State carry their own risks. The premium is collected and deposited to the credit of the insured and his money, interest and all, less the losses sustained, and statistics show that the losses will not come up to the premium. For instance, this company has received some \$38,000 in premiums in the last year on this class of property, and have not sustained a single loss. If the company should sustain losses, however, greater than the combined premiums, then each one of the insured would be called on for his quota of the deficiency, but this is a contingency so remote that it is not likely to happen, but at the same time it makes the insurance absolutely safe. Each one of the insured is a member of the association as long as he choose to remain insured, and when he wishes to draw out he can get his money less his pro rata of losses and expenses. Of course the greater the number who insure the less expense to each, and it will not be long until the interest on the premiums will pay all the expenses and losses. The association also has a paid up capital of \$100,000, upon which it takes favorable risks on the same plan as other companies, and this goes to lighten the expenses. Then the money on premiums is deposited in local banks, so that it is not drained out of the county. The money received for premiums in this county will be deposited in the Farmers' Bank of Colusa county, and drawn only in case of loss by fire. The Farmers' Storage and Commission Company is the agent at Colusa.

From the Granges.

Paradise Grange.

Messrs. Editors.—Please spare me a place in your valuable paper to delineate in brief the proceedings of Paradise Grange on the 29th of May last, and her advancement in the little valley of Paradise.

On last Saturday evening about two o'clock could be seen gathered and gathering around the hall, happy and pleasant Grangers desirous of partaking in the grand and noble occasion, that of laying the corner stone of our new hall building, a spacious Grangers' store house and hall, which will be and is an ornament to the valley, and an honor to the members of Paradise Grange now, as well as in the mystic future. After the usual opening of the Grange, and the initiation of two ladies in the first degree, the members formed into a procession marshaled by Brother Theodore Shirley and Brother Robert O'Neal, and proceeded to march to the foundation of the new store house and hall building. The banner was borne by Brother J. Bradshaw. On reaching their destination the ranks opened and the Worthy Master and Overseer at the rear of the procession marched up through the center of the columns, the other officers and members falling in in the regular order, the Worthy Master, Worthy Secretary, and Worthy Treasurer taking their stand near the corner stone.

An ode was sung, then the principal workman, Mr. Ward, addressed the members as follows: "Being desirous that the foundation stone of this building should be laid with appropriate ceremonies by your honorable Order, I have therefore solicited your attendance upon the present occasion, and hope that it may now be your pleasure to proceed in the performance of that service. The necessary preparations are all made, and now await your directions."

The Worthy Master followed with these words: "Most worthy sir, in compliance with your request, so politely tendered, I now proceed to discharge the duty assigned me, hoping that the building which shall rise upon this foundation may reflect credit upon your skill, and be completed with satisfaction to the owners, and with profit to the workmen."

The Secretary then handed the Worthy Master coins, currencies, a paper containing the names of the officers of this Grange, also the names of the Worthy Masters of State and National Granges, President of the United States and Governor of Nevada, and what the building was intended for, also a copy of the *Rural Press*, *Silver State* and *Humboldt Register*, a few barley heads, a bunch of grapes and currants, a bouquet of mountain roses and a postage stamp. These were passed to the Worthy Treasurer by the Worthy Master, who placed them in their lone, dismal hiding place.

The corner stone was then placed in position by the Worthy Secretary, after which the Worthy Master spoke as follows: "In the name of the National Grange of the United States and State Grange of California, I pronounce the corner stone of this building, intended for a Grangers' Hall and store house, to be laid in form and order. Brethren, so be it." An ode was then sung by the members, when the orator of the day, Brother J. B. Case, delivered an oration relative to the good the Grange has done and the workings of the Order, which was listened to with profound interest by all present, and did much, in my opinion, to stir up new zeal and new energies in the minds of the members, to carry on to completion the plan already laid and forward the Grange cause to a higher state of perfection.

W. PERKINS, Sec'y.

Paradise valley, June 7th, 1875.

Linn's Valley Grange.

EDITORS PRESS:—Being required by Linn's Valley Grange, No. 209, to address to you for publication a series of resolutions of respect to the memory of Sister Vaughn, I will at the same time give you a few items which may perhaps be of interest to your many readers. No. 209 is flourishing as a green bay tree. We are to have a ball, a good one, too, at that, in conjunction with the Good Templars, Odd Fellows and Masons, the four orders to build the house and the Grange own the lower story exclusively, while the upper will belong to all as a common hall for meeting of each order. Almost money enough has already been subscribed and part of the lumber is on the ground. Deputy M. S. Babcock was with us last Saturday, June 5th, and conferred the fourth degree upon a class of six, two women and four men, partook of a rich harvest feast, installed our officers elect, made a good speech in behalf of the Grange movement in general and of the Visalia Business Association in particular, gave the annual word to the Master and went on his way rejoicing in the good work.

The dry weather is affecting the crops here as well as elsewhere in the State, and some of our most worthy brother farmers will lose their labor of planting potatoes I fear, while drouths, frost and squirrels, each take a goodly share of small grain and hay. The honest husbandman will have but little left for himself and his little ones, yet we are not likely to be in need of any outside help, save a small share of those able bodied immigrants who are crowding your city just at this time to overflowing. Perhaps a half dozen good steady sober men, and women, too, could get constant employment in and around Linn's valley, chopping wood, plowing, driving team, or doing general farm work; but they should not expect more

than \$25 to \$30 per month, and stay a long time, say six months or a year. Farm hands who will stay only for a week or a month, are seldom worth what they cost; it takes them that long to learn the run of the work they have to do.

Our Grange has followed the example of other Granges in the county in the matter of taxing the lands equally. We want all lands of equal quality, whether owned by a poor man or a rich one, or a company, to pay equal tax. We cannot understand the justice of making a man with 160 acres, and no more, pay at the rate of ten dollars per acre, while another man or company owning thousands of acres, pay at the rate of fifty cents or thereabouts.

SAM. E. REED.

Linn's valley, Kern county, June 7th, '75.

Sacramento Grange.

Messrs. Editors:—At the last meeting of the Sacramento Grange, a resolution was passed and a committee appointed to meet in Sacramento, on the 19th, with other committees from different Granges in the district, to devise ways and means to celebrate the coming Fourth of July in an appropriate manner.

Sacramento District Association.

On the 22d, at Sacramento, a general meeting of the stockholders will assemble to elect new directors and officers for the ensuing year. At the last mass meeting there was a good attendance, and a disposition of earnestness was felt for its welfare and prosperity. I have just learned that Bro. J. J. Bates, Secretary of Florin Grange, and one of the above directors, died on the morning of the 12th, after a week's sickness.

G. R.

Sacramento county, June 14th, 1875.

In Memoriam.

To the Members of Linn's Valley Grange:—Your committee, appointed to draft a memorial of respect to the memory of our late departed sister, submit the following:

WHEREAS, The relentless hand of death visited our Grange on the 23d day of May, A. D., 1875, and removed from our circle one of our charter members, SISTER MART A. VAUGHN,

Resolved, That in the death of our sister, this Grange has lost a good and devoted member, and her husband a kind and affectionate companion.

Resolved, That we as a band of brethren and sisters, tender our heartfelt sympathies to the bereft husband, relatives and friends of our deceased sister, and that we bid them look up and sorrow not as those who have no hope.

Resolved, That in token of respect to the memory of our departed sister, the charter of this Grange be draped in mourning at every meeting during the thirty days.

Resolved, That a copy of these resolutions be incorporated in the minutes of this Grange, and a copy be sent to the *PACIFIC RURAL PRESS* for publication.

LIZZIE E. PASOOL, } Com.

JULIA MORRELL, }

LIZZIE WILKS, }

SAM. E. REED, Sec'y.

Linn's valley, Cal., June 5th, 1875.

AGRICULTURAL NOTES.

COLUSA.

GOOD WHEAT.—*Sun*, June 12: We are informed that some of the wheat on Durham's ranch, on Freshwater, will turn out forty bushels to the acre. In the same neighborhood, in fields that were cut for hay in the spring, the grain has sprouted up again, and is now green and about fifteen inches high, and will make good hay. This grain has had no rain since the 20th of January.

CONTRA COSTA.

LARGE YIELD PROBABLE.—*Gazette*, June 12: We are well satisfied that there is no section that, for the area sown, will yield so largely as the portion of this country west of the Diablo meridian. The crops of the Diablo, Ygnacio, San Ramon, Taylor, Moraga and tributary valleys, will be especially good, and the hill and valley farms of the Rodeo, Pinole and San Pablo districts, will average nearly or quite as well. The San Joaquin district of the county, from Bay Point to the Point of Timber, will not do as well, but is gathering a fair crop for the season, which will be up with the average of the best Sacramento valley districts.

ANOTHER HARVEST ITEM.—From same: We are now about entering upon the wheat harvest in this section, and it is likely to prove equal to any we have ever gathered. There may be no single pieces of wheat as heavy as we have known in some former years, but the crop is more uniformly good than we have ever before known it. Some of the late wheat may have suffered a little shrinkage from effect of the few days' warm weather during the past week; but the cool and cloudy weather we have since had will have done something to compensate for this loss, in its good effect upon the less mature grain. We have no loss from the threshing or shattering of ripe grain by high winds, such as has been suffered in the Sacramento valley districts recently.

KERN.

PRODUCTIVE SOIL.—*Southern Californian*, June 10: On some of the grain fields the stubble is so heavy that in order to plant in corn it has been found necessary to burn the stubble. The stalks of corn on some of the same ground last year grew to a height of 18 feet, and the squashes were taken off underneath in untold tons.

FRUITS.—From same: The work of the late frosts is now apparent. There are no peaches to be heard from. All kinds of berries are abundant. Apples will be good, though not plenty. Plums we are poorly supplied with,

though they grow luxuriantly. Grapes will be good, and more abundant than ever.

LOS ANGELES.

GRAIN AND CORN.—*Herald*, June 12: In some localities the frost will slightly reduce the yield of grapes, but this is more than made up by the increase in the number of bearing vines. Of grain we shall—in fact we might say we have—harvested fully three-fourths of a crop, for the harvest is nearly over. A well posted farmer informs us that Los Angeles valley will produce more bushels of corn this season than at any previous year since the settlement of the country.

MERCED.

ENOUGH AND TO SPARE.—*Express*, June 12: At the early part of the season everybody thought there was going to be a good average crop, if not more. A little later the growing grass looked sickly, and every man's lip fell. Still a little later, and the generous dews and life-giving winds revived the crops and correspondingly the spirits of the farmers. And today the chances are that there will be, with a short crop, wheat enough to feed the valley and many hungry outsiders, to say nothing of margins for speculators.

MONTEREY.

GOOD WEATHER FOR GRAIN.—*Democrat*, June 12: The beginning of the week was hot, with little air, but on Tuesday the revulsion came, the wind blowing freshly from seaward that morning and the temperature being low enough to make woolen clothing comfortable. It was just the weather for the grain, now filling, and at the same time exemplified the law of climate in this quarter.

NAPA.

WHAT A CORRESPONDENT SAYS.—*Register*, June 12: We are sorry to learn that crops along the foothills in the valley above, are not good, a correspondent writing us that only those along the river bottom will pay much more than expenses.

SAN BENITO.

HARVESTING.—*Hollister Enterprise*, June 12: Harvesting has commenced on several of the ranches in this vicinity. Barley, a great deal of it, is ready for the reaper.

SAN LUIS OBISPO.

PROMISING CROPS.—*Tribune*, June 12: We received a call from Mr. A. J. Mothershead, on Thursday, and learned from him that crops at Morro are good, in fact, better than in any other locality from Monterey to Santa Barbara. His early sown barley will average from 75 to 80 bushels to the acre and volunteer 50, while his wheat, though not equal to last year, will yield 30 bushels. All the crops in that vicinity are equally promising. Although this is counted an unfavorable season, there is an abundance of all the cereals in this county. On the Los Osos, near the head of Morro bay, Mr. Bayer has a field of wheat that has been variously estimated at from 50 to 60 bushels to the acre, and L. M. Warden, Esq., has barley that will crowd 100 bushels so close that there will be small margin either way.

SONOMA.

THE HAY CROP.—*Petaluma Argus*, June 12: Hay is arriving in town daily in large quantities. It is generally of better quality than last year, and sells at \$11 to \$13 per ton baled. There is still a considerable quantity of last year's hay stored in this city and vicinity.

HARVESTING.—From same: Harvesting in Sonoma valley was commenced this week. We are informed that the yield of grain will be about an average. A larger area was cut for hay than usual. The volunteer was light and the sown about the same as usual.

GRAIN AND FRUITS.—*Russian River Flag*, June 10: The grain crops about Healdsburg are not much, if any, below the average. Early sown grain and that sown on summer fallowed soil, or on land that was planted in corn last year, is invariably good. The fruit crop, as a whole, will be large. It is only here and there that any fruit has been injured. The almond crop will be unusually large.

ALFALFA ON MOUNTAIN SOIL.—From same: James Samuels has made a successful experiment with alfalfa on his mountain ranch, 27 miles northwest of Healdsburg. Last spring he sowed two and a half acres on the summit of the ridge, above his house, and the alfalfa is now six or eight inches high, standing evenly all over the field. Indeed it is the best "stand" of alfalfa we have seen on any soil. The same field yielded 35 bushels of corn to the acre last year.

EXCELLENT APPEARANCE OF THE CROPS.—*Democrat*, June 12: We rode out on Monday last for some distance south of Santa Rosa, and must confess that we were astonished at the excellent appearance of the crop. This section was never before put to so severe a test by drouth, and we now predict that the outcome will exceed all expectations. We met Julius Ort, than whom there is no better farmer in this township, and he informed us that he was now harvesting a larger hay crop from his place than for many years. A note elsewhere from James Fulton states that his crop will be above the average. Everywhere along Santa Rosa and Mark West creeks the report is equally favorable. Throughout Santa Rosa valley the promise for a good yield of grain may, with all safety, be said to be excellent.

FULLY UP TO THE AVERAGE.—From same: The crops near Fulton are looking very well; the yield will be fully up to an average. James Fulton considers his crop better than usual.

STANISLAUS.

LABORERS WANTED FOR HARVEST.—*News*, June 10: Harvest has just commenced, and already we hear complaints that laborers cannot be secured. The exaggerated reports of the failure of the grain crops in the valley no doubt has had a tendency to turn laborers in another direction. Unless there is an increase of laboring force, the farmers in this locality will no doubt have trouble in getting through with their harvest.

TULARE.

HARVEST PROSPECTS.—*Times*, June 12: We have seen a great many men from all parts of the county, and learn that the crops are better than was anticipated. The grain where irrigated is very good, and in many places on Tule river and Lower King's river, fields of grain will give as high as fifty bushels to the acre where no irrigation is applied.

Oregon.

THE GRAIN PROSPECT.—These items from the *Oregonian* of June 12: Farmers tell that early sown grain looks splendid, and bids fair to yield an abundant harvest. Late sown grain doesn't look so well and needs rain badly. One who has been traveling up the Willamette says: The grain looks well in most places in the valley, but we saw a few fields that seemed to have more than their share of fern growing in the midst of the wheat, trying to out-trip and produce the largest crop, and we think it has succeeded admirably well, so far.

EARLY POTATOES.—From the same: Mr. Jacob Wagenblast, residing on Government Island, has laid us under obligations for about a peck of young, choice potatoes. These "spuds" were raised on his farm the present year, and are the first of the season. Nice, fresh potatoes on the 8th of June is not a commodity to be sneezed at by the most fastidious epicurean, and is not a bad thing for Oregon either.

Industrial Items.

THE railroad track is being rapidly laid out from Spadra. About nine miles of road is finished. The whole road to San Geronio pass will soon be ironed and in running order. The men are now laying about a mile of track per day.

MR. DAVIS, of Salinas City, is burning a fine brick kiln in the southern part of the town, near his residence. The kiln is 50 feet long, 40 wide, and 14 high, and contains about 350,000 brick.

THE matter of supplying the town of Fulton with water from Mark West creek is also under discussion. The fall from Rector's mill to the town, two miles, is 83 feet.

THE Directors of the Woodland, Clear Lake and Humboldt railroad are at work securing the right of way for the section between Woodland and Capay.

THE town council of San Buenaventura has granted a gas franchise to leading citizens. It provides that works shall be erected within 18 months.

SOME fifteen acres of porcelain clay have been discovered near San Fernando. Also, a rich vein of zinc ore not far from Los Angeles.

Two miles of track have been laid on the Vaca valley railroad. The work is now suspended for lack of ties.

THERE is talk of establishing a wine cellar at Fulton. One-half the stock of \$10,000 is already taken.

THE Union understands that there is something more than talk in the matter of establishing woolen mills at San Diego.

THE Anaheim hotel is to cost \$40,000, will be three stories high and contain eighty rooms.

General News Items.

LAST Sunday morning, as one of Montgomery Queen's circus wagons, from which the horses had been unhitched, was being moved down Carson street, Virginia, by three of the attendants, those in charge lost control and the ponderous vehicle dashed down the steep incline at a terrific rate of speed and finally plunged into a dwelling house on I street. In the front room a young lady named Gilmore was in bed with her little niece. The wagon broke through the front of the house, completely demolishing it, and severely injuring Miss Gilmore.

JOHN COTTON and Mrs. Norton, the chief and accomplice in the Santa Barbara tragedy, passed through this city on Monday for Santa Barbara. They were arrested at Wadsworth, Nev., where Jack had found employment after fleeing from the scene of his crime.

A CHILD in Auburn, Placer Co., was attempting to pick the inside out of a giant powder cap with a pin, some days ago, when the cap exploded, blowing off part of the thumb and forefinger on his right hand.

HORACE B. CLAFIN, John Clafin, Daniel Robinson, Dexter N. Force and W. H. Talcott, merchants of New York, have given bail in \$20,000, under indictments against them for silk smuggling.

THREE of the Black Hills party who recently had property destroyed by the military, have sued the Government officers who destroyed their property, and claim damage to the amount of \$22,000.

THE Cincinnati equatorial telescope, made in Munich for the observatory, has arrived, and will be placed in position this week.



The Golden Side.

There is many a rest on the road of life,
If we only would stop to take it;
And many a tone from the better land,
If the querulous heart would wake it.
To the sunny soul that is full of hope,
And whose beautiful trust ne'er faileth,
The grass is green and the flowers are bright,
Though the wintry storm prevaileth.

Better to hope, though the clouds hang low,
And to keep the eyes still lifted;
For the sweet blue sky will soon peep through,
When the ominous clouds are rifted.
There was never a night without a day,
Nor an evening without a morning;
And the darkest hour, the proverb goes,
Is the hour before the dawning.

There is many a gem in the path of life,
Which we pass in our idle pleasure,
That is richer far than the jeweled crown
Or the miser's hoarded treasure;
It may be the love of a little child,
Or a mother's prayer to Heaven,
Or only a beggar's grateful thanks
For a cup of water given.

Better to weave in the web of life
A bright and golden filling,
And to do God's will with a ready heart,
And hands that are swift and willing,
Than to snare the delicate silver threads
Of our curious lives asunder;
And then Heaven's blame for the tangled ends,
And sit to grieve and wonder.

Riverside.

Graphic Description of Climate, Resources, etc.

RIVERSIDE, April 3, 1875.

MR. CARRY EVAND DEAR SIR:—You will see by this heading that I have Come Down here to see what your prospects are hear well Carry the facts are just this I payed my old Friends a vissit last winter at Ft Wayne after living here on this side of the mountains in Nev and I caut atuch a bad cold I was forste to a warmer Climate eaven then Keno Nev to find relief Well I read that littee Book of yours or the one you gave me and I thought I would go and see what you had their so I took the cars and went to San Francisco and found the old Captain Saywood and he told me where to find the New Colliney and I came on down and here I find our Wothy friend Henery Rudical which was a aource of mutch relief to me as I have an ex-ulted opinion of Henery.

and I am here yet and I do not know when I shal leave here as I have not been here long aknuff for the climate to have mutch effect yet on one of your Indiana Colds The facts are Carry if I had of stayed their all winter I would of hev Dead Before to Day. Well I now suppose you are interes in knowing what I think of your Colony I think it one of the Pleasantest Places in the World and the heltheat I guess the Poet mns been down here when he wrote these verces discribing the Celestial World Where he says no chilling winds or Posinois breath ever reach that helthful shore Nor Sick-ness nor Sorrow pain and woe is felt and heard no more I think this country down here comes the neareat to that Happy Land ascribed by the Poet Carry after liveing almost forty year in the Hoosier state and heering of the Purity of the air and the many advantagea of the climate to assist man on his journey of life I quit the states to find a home somewhere that I could live in and not shake with the ague at sumer and Frees all Winter so now I find myself down in southern Cal Where all meae difficultys is over com The Climate her is the most Butifull of any I ever saw the sun shines always here Everything you Play ont here never atop growing Fruit trees grow twelve month here where in Ind Four or five month is all the time they have to grow and you have always to wait and eaven the winter have so changed as to not allow the Peach tree to grow and the finest of appes are most all killed ont by the Deep Frost of the winter which is every year gittin worse.

I find Peopl here from every state in the union and that is the most singular thier is no one hor- sick all are as happy as Larka I think vshal change the name of this Mew Colony to the Valley of Happyne as the little Nw homes of settlers are all at work Planting all sorts of treea from a Rosebush to the lofty Cedar I have often thangh in my hours of rest How I would have a cuntry mad to autit my Fancey. Well Carry I have not in all my thoughts begun to think of one half so pleasant as the one I have found here With so may Earthly Blessings the first and Greatest of all is Helth and to escape the Cold Dreary Winters whitch always wind out with Rain and mud so Disagrabl to a Person not acustom to it the Peopel all have one thing to monrn about and that is they feel sorry to think they have left some Good Brother or Friend Behind them but like the parable of the man who was so unfortunate as to git into Hell he asked of the Lord to send special agent to warn his Brothers of sutch a Horribal Place that he had five Brothers whitch he was afraid mite put of the

hour of repents untile it was everlastingly to late But the Lord told them of Eliga and the Prophetts who was their as a living Proof of all the facts laid down in that Book of all Book But the Facts are Cary Evans the People have been so fooled by desineing and Lieing men that if one should from the Dead he would hardly be believed Now let me say to those of Poor health and wishing to find a healthy warm climate to embrace the Best chansen ever off to the world

you know How it is going in to the Southern Statea where all those fatal and drealed Fevers exist all the year sutch a thing as yellow Fever or Billious Feaver is never known on this side of the Rocky mountains you have nothing to fear here of the Feavers that is so fatal in the Atlantick States

I must say something about the Hot weather hear it is a different heat from any Part of the Atlantic yestourday the Theometer stood at Eighty in the shade and their was no complain- ing with Hot weather The nites are just cool knuff to sleep good you see their is all- ways a cost wind that helps to make up the buties of this Place and drive away the heat the heat of the scorching sun When you Ditch is done and the Farmers have all this Butifull Valley yellow with Oranges and lemons and Tropical fruits Pecular to this climate and the Grape in full bareing and keeps us all at work to Prepare the Juice for mans use then I will look for the coming of christ haveing finished his mision on earth and gave it up to the Father!!!

the wicked to be sent to the atlantick states where their is weeping and wailing and hun- and cold!!! Now Carry for fear of being sent Back. I have become very sober and thought- full, and I hope you will go and do likewise. The good is to be left hear on this cost. Head- quarters at Riverside or Losangeles. I cannot tell whitch Eather will do me!!! What would a Ft. Wayne man say to look at eather of these valleys I think if he was a Preying man he would prey to be left here as his Happyneess would be grater here than any Place he could think off. Now carry I have been sayng a good deel, but I have not asked you how your helth is I hope you are well write soon as you get this and let me know whether you can read this bad spelling and broken composition I will write you at length next time Good bye From your Friend Geo. P. Small.

P. S. I do not want you to sell all of these lots off untill I get some of my Ind. folks out hear.—Fort Wayne News.

The Perfection of Nature.

Everything in nature is just aa positive and definite as the multiplication table, which, could you reach a distant star you must find them teaching the children, just as we do in our village schools on this little speck of earth. The laws of the universe must be uniform and constant, and the smallest drop of water has its rounded form and center of gravity, the same as the world itself. Perfection in any direction cannot be more than perfect in the limit of whatever its special charac- ter may be. The notion of infinite ability in nature is positively untrue, though in our limited knowledge, and as regards variety and application, we may so consider it, but not as to the laws and principles on which it acts.

But—
"To glid refined gold, to paint the lily,
To throw a perfume on the violet,
To smooth the ice, or add another hue
Unto the rainbow, or with taper light
To seek the Jeatous eye of heaven to garnish,
Is wasteful and ridiculous excess."

A truly good man could not be more than truly good. To suppose, therefore, a being of infinite goodness is as foolish as to suppose his face and figure might be infinitely beautiful; for every special virtue, form or kind of beauty must be definite and limited; and if we speak of infinite folly, we simply mean that it is extended in quantity over the world or society, for all facts in nature are bound by laws and principles which do not admit of indefinite action, except as variety in application; and even this is not infinite, though practically the notes of music may be so regarded from the extent and number of possible combinations; just as in respect to words in relation to ideas.

A RARE CIRCUMSTANCE.—Two lives rarely run so closely parallel as those of Robert and Mary Essery, who had lived for many years at Orchard Hill farm, near Biddeford, England. They had been married sixty-five years when the husband fell ill. His wife attended to him assiduously, and when he died she exclaimed, "Thank God, he has gone before me!" It was not long, however, for the old lady sank back exhausted, and died within five hours. Both of them were verging on ninety years of age.

As an indication of the advancement that science has made recently, it might be stated that a gentleman at one of the city markets, the other day, saw half a bushel of white turnips run through a cider mill, and half an hour thereafter saw the same article, bottled and on sale, and labeled "Pure Grated Horse-radish."

THE Truth Seeker states that the circulation of Beecher's paper, the *Christian Union*, has fallen from 125,000 to 24,000. It is not long since it was reported that the circulation had gone up to 200,000. Some difference in the two stories—nearly as much as in the testimony in the Tilton case.

Courtesies to Parents.

Parents lean upon their children and especially their sons much earlier than either of them imagine. Their love is a constant in- spiration, a perennial fountain of delight, from which our lips may quaff and be comforted thereby. It may be that the mother has been left a widow, depending on her only son for support. He gives her a comfortable home, sees that she is well clad, and allows no debts to accumulate, and that is all. It is consider- able, more even than many sons do; but there is a lack. He seldom thinks it worth while to give her a caress; he has forgotten all those affectionate ways that keep the wrinkles from her face, and make her look so much younger than her years; he is ready to put his hand in his pocket to gratify her slightest request; but to give of the abundance of his heart is another thing entirely. He loves his mother. Of course he does. Are there not proofs enough of his filial regard? Is he not continually making sacrifices for her benefit? What more could any reasonable woman ask?

Ah! but it is the mother heart that craves an occasional kiss, the support of your youthful arm, the little attentions and kindly courtesies of life, that smooth down so many of its asper- ities and make the journey less wearisome. Material aid is good, so far as it goes, but it has not that sustaining power which the loving sympathetic heart bestows upon its object. You think she has outgrown these little weak- nesses and follies, and is content with the crust that is left; but you are mistaken. Every little offer of attention, your escort to church or con- cert, or for a quiet walk, bring back the youth of her heart; her cheeks glow and her eyes sparkle with pleasure, and oh! how proud she is of her son.

Even the father, occupied and absorbed as he may be, is not wholly indifferent to these filial expressions of devoted love. He may pretend to care very little for them, but having faith in their sincerity, it would give him serious pain were they entirely withheld. Fathers need their sons quite as much as the sons need their fathers; but in how many deplorable in- stances do they fail to find in them a staff for their declining years!

My son, are you a sweetener of life? You may disappoint the ambition of your parents; may be unable to so distinguish yourself as they fondly hoped; may find your intellectual strength inadequate to your own desires, but let none of these things move you from a deter- mination to be a son of whose moral character they need never be ashamed. Begin early to cultivate a habit of thoughtfulness and consid- eration for others, especially those whom you are commanded to honor. Can you begrudge a few extra steps for the mother who never stopped to number those you demanded in your helpless infancy? Have you the heart to slight her requests or treat her remarks with indifference, when you cannot begin to measure the patient devotion with which she bore with your peculiarities? Anticipate her wants, in- vite her confidence, be prompt to offer assist- ance, express your affection as you did when a child, that the mother may never grieve in secret for her son she has lost.—*Rural New Yorker*.

TO CROCHET A BREAKFAST SHAWL.—Make a chain corresponding in length to the desired size of the shawl around the neck. Crochet a row of double atitch on this chain, putting a stitch in each loop of the chain. Between the first and second stitches of this row attach three double atitches; between the fourth and fifth, three; between the seventh and eighth, three. Continue in the same manner until the middle of the chain is reached where six atitches should be made. The last half of the row is to be crocheted like the first half. The work will now appear divided into clusters of three stitches each. For the next row crochet three stitches between the first and second atitches of the first cluster, three after it and every succeeding cluster, six between the two clusters that mark the middle, and three be- tween the last two stitches of the last cluster. Each remaining row to be worked in the same manner, taking care always to work one cluster between the two atitches at each end of the row, and two clusters exactly in the middle. Widened in this way the bottom of the shawl will describe the two equal sides of a right- angled triangle.—*N. D. S.*

WOMEN OF PLUCK.—A man of much tact came to New York from Maine and made a handsome fortune. One day he came home out of sorts. He was restless at night—awoke early in the morning, and was evidently in trouble. His wife said: "Husband, what is the matter with you?" "I am in trouble, and dare not tell you what the matter is." "Have you committed murder or some great crime?" "Oh! no; no crime at all. I am afraid I shall have to fail." "Is that all? Why don't you fail then? It can't hurt you to suspend pay- ment when no one pays you. We began with nothing, and we can start again. When times are better you will make money, and then no one can prevent you from paying your debts." "Do you feel like that? Then I can take heart and begin anew." Even now he is on the fair way to success. Men who make business the great thing, and not simply the getting of money, have a resource that never fails.

GOLD ever shines the brightest under the greatest friction. So the soul is made purer by the greatest tribulation.

How They Kill 'em.

All manner of expedients are employed to ex- terminate the grasshoppers, which work such terrible destruction to the farms of the Mis- sissippi and Missouri valleys. They travel so closely together, in battalions as it were, that in some places the people are enabled to drive them into long trenches and cover them up with earth; in others they are burnt by millions, after being driven upon straw faggots. Where circumstances are favorable they have been de- stroyed in immense numbers by being rolled to death under ordinary field rollers.

Somebody has described, as follows, the man- ner in which they are killed in the wheat fields of Colorado, without at the same time destroy- ing the grain:

"Suppose you were to ride by a farm and see a man moving back and forth across his wheat field with a string of fire about twelve or fifteen feet wide, suspended on runners two and a half inches above the earth; what would you think he was doing? That he was crazy or purposely destroying his crop? That is the way farmers around here are killing grasshop- pers, and the only successful way they have yet discovered. It is a novel sight, but makes one feel good all over to see the everlasting little nuisance burn up. It does not destroy the wheat as one would suppose. If the farm- ers had known about it at the start, they could have saved their entire crop."

If every man would do what he reasonably could to destroy these pests, they would not be permitted to perpetuate themselves, or at least they could only do so in such small numbers that their ravages would be greatly diminished.

A SUNNY FACE.—How sweet in infancy, how lovely in youth, how pleasing in age! There are a few noble natures whose very presence carries sunshine with them wherever they go; a sunshine which means pity for the poor, sympathy for the suffering, help for the unfor- tunate, and benignity toward all. How such a face enlivens every other face it meets, and carries into every company vivacity and joy and gladness! But the acowl and frown, be- gotten in a selfish heart, and manifesting itself in daily, if not hourly fretfulness, complaining, fault-finding, angry criticisms, spiteful com- ments on the motives and actions of others, how they thin the cheek, shrivel the face, aour and sadden the countenance! No joy in the heart, no nobility in the soul, no generosity in the nature; the whole character as cold as an iceberg, as hard as Alpine rock, as arid as the wastes of Sahara! Reader! which of these countenances are you cultivating? If you find yourself losing all your confidence in human nature, you are nearing an old age of vinegar, of wormwood, and of gall; and not a monner will follow your solitary bier, not one tear drop shall ever fall on your forgotten grave.

PRONUNCIATION.—When repetition has ren- dered one mode of utterance *habitual*, it be- comes difficult or impossible to pronounce otherwise. A Frenchman who has learned English subsequent to childhood, almost in- variably says "mout" in place of "mouth," and not one in a hundred Englishmen can pro- nounce the French vowel *u*. Neither training nor drilling, except in a few educational cases, can eradicate these habits. On the same prin- ciple is to be explained the invincible per- versity of Cockney aspiration, and of provin- cial utterance. Notwithstanding Dr. Samuel Johnson's long residence in London, and his great attainments in the English language (of which in his day he was veritable dictator), he retained a few Litchfield words to the last. In good natured mimicry of him, Garrick used, when squeezing a lemon into the punch bowl, to call out, "Who's for poonch?" Even Gar- rick, too, notwithstanding all his accomplish- ments as an actor, and his careful training in pronunciation, was never altogether able to get rid of his provincialisms; he always said "ahupreme" and "ahuperior."

LADY SCHOOL SUPERINTENDENT.—A widow is a candidate for the position of School Super- intendent of San Diego county, and will prob- ably be elected; the two newspapers represent- ing both political parties agree in urging her claims. The Legislature, at its last session, passed an Act providing that women, over the age of twenty-one years, are eligible to all edu- cational offices in this State, except those from which they are excluded by the Constitution. That document, referring to the State Superin- tendent, speaks of "his duties," as if the offi- cer must be a man, but it certainly does not exclude women from the position of County Superintendent or School Trustee. We do not hear of any other feminine candidates for school offices, though many might fill the places better than they are filled now.—*Ex.*

SOME SPELLS.—The inconsistencies in our orthography are something fearful to contem- plate. T-o-n-g-u-e spells "tongue," and the man that first spelled it should have been hongue. A-c-h-e spells "ache," and that's all you can make out of it. E-i-g-h-t apells "eight," no matter how you deprecheight the idea; and that a-i-a-l-e should spell "aiale," and f-e-i-g-n "feign" is enough to make any- body amaisle, if the effort were not too peign- ful.

A WIFE's love is the golden chain which unites her to her husband. It has a thousand links forged by sympathy, self-respect and mutual confidence; aever but one of them and the chain is as completely broken as though a hundred were destroyed.

Sun Worship.

There is more than idle fancy in the old sun worship of the Persian and of the Mexican, the inhabitants of two regions with the diameter of the globe between them, but where kindred climate gave birth to kindred instincts. There, with the sun powerful and beneficent above them, at the touch of whose rays earth seemed to blush with bloom, like attendants upon which the winds came laden with perfume and delicious warmth, with whose reign life resolved into a mere pleasure of existence, under such circumstances, and with no revelation of another form of religion, it was not wonderful that to these people the sun seemed to be the splendid shroud of a divine power dwelling within it.

They saw the sun the center of the universe, and all things seeming to revolve around him. They saw the seed lying, for eons it might be, in the bosom of the mother earth, but never springing into life till touched by the fructifying power of the sun. They saw those portions of the earth remotest from his influence wrapped in ice and frigidness, desolation and darkness, while between such parallels as lay perpetually beneath him a prodigious vegetation and life and beauty revelled; and they felt that behind their creative power the creator himself must be ensphered—the creator, the friend, the benefactor, the father of all, who when he came brought hope and joy with him, and when he went left darkness and doubt and fear to creep in behind him.

After all, it was at once the simplest and the most beautiful of the ancient and heathen religions. It had none of the complexity of the Grecian paganism that, a natural offshoot under Aegean winds and skies and the artistic fancy indigenous here, became an utterly artificial manufacture when transplanted into the Roman atmosphere. It had in its early form none of the mysticism of the Hindostanee, none of the barbarity of the Polynesian and its related religions. It was the idea that must have suggested itself at once to the reason and imagination of the primitive man in a happy and comfortable condition. It numbered itself with no personalities, and it perplexed itself with no dogmas. Before the revelation of the truth, of a religion of self-sacrifice and endeavor, nothing could have been purer or more joyous than this worship of the sun.—*Ex.*

A New Cause of Trichinae in Pork.

Some new cases of deaths, due to the eating of pork infested with *Trichinae*, which are being quoted in Western journals, should be the means of directing public attention anew to the horrible disease of swine called *trichinosis*, and to the fact that when once the parasite attacks a human being, the result is prolonged suffering, and in a multiplicity of instances, death. The worm existing in the pork literally bores its way out of the stomach and into the muscles.

It has lately been found that swine may become infested with trichinae through eating carrion, or even decayed vegetable substances. This is a point worth consideration by farmers, who incline to the belief that dead chickens, putrid swill, or any other filth about the place is legitimate food for the pig. The animal is not dainty in his tastes, and will lunch off his dead relatives with infinite gusto, but it is the poorest economy to permit him to assume the role of scavenger. No milk dealer will allow his cows to eat garlio if he can help it, though the brutes are crazily fond of the odoriferous weed; and there is certainly more reason for the farmer to see that his porkers have no access to unclean food. In the one case, if precaution be neglected, the taste of the milk is affected; in the other, the entire flesh is rendered poisonous and dangerous food.

A GOOD EXAMPLE.—It is mentioned as an interesting fact, that numerous instances have recently occurred all over the country of the continuation of the husband's business by the widow. It shows that woman is making material advance toward an independent position in society. The latest case is that of Mrs. C. F. Wells, relict of S. R. Wells, the phenological and reform publisher, who has taken up the work where her husband left it and will continue the publication as the leading partner. Mrs. Wells was a sister of Mr. Fowler, the former partner of Mr. Wells, and her education has been such as to fully qualify her for the task she has undertaken.

CALIFORNIA has a reputation of raising some large crops, but, to use a vulgar expression, she has "been put to her stumps" by a Missouri man who recently sent a box to a physician of Los Angeles, on which was marked "Product of Missouri; one hundred and fifty bushels to the acre; can California beat it?" The Doctor was anxious to see what would grow in Missouri at the rate of one hundred and fifty bushels to the acre, and hastened to open the box, which he was astonished to find filled with emaciated grasshoppers.

The criminal authorities in Belgium have made a treaty with a distinguished prisoner to remit three years of his penalty in virtue of his disclosure of various methods of getting out of prison. His disclosures induced them to change all the locks on their prisoners; but why he didn't pick his way out at once and refuse to trade his secrets for three years is perhaps a State secret.

YOUNG FOLKS' COLUMN.

The Ten Commandments in Verse.

Thou no Gods shalt have but Me;
Before no idol bend the knee;
Take not the name of God in vain;
Dare not the Sabbath day profane;
Give thy parents honor due;
Take heed that thou no murder do;
Abstain from words and deeds unclean;
Steal not, for thou by God art seen;
Tell not a willful lie, nor love it;
What is thy neighbor's do not covet.
With all thy soul love God above,
And as thyself thy neighbor love.

A Little Teacher.

"Oh, dear! it is so bad, and I did want to go so much, too."

"What is it, Bessie?" said Aunt Julia, seating the little weeping girl upon her knee.

"Well, Auntie, you see, I wanted to go to Sallie Brown's doll's party so bad; and Ruby was all dressed in her party dress, ready to go; but when I went to ask mother she said I couldn't go, for it was going to rain, and there hasn't a single drop fallen yet, for I've watched—not a single drop yet, Auntie."

"That may be all true, Bessie, yet a great many drops may fall between this and night. Your mother knows best, dear. Go and get Ruby, and let me see how beautiful she looks in her party dress."

So Miss Ruby Rose was brought, and after receiving a great many compliments, Auntie said:

"Now, let Ruby lie in your arms while you lie in mine, and let's talk. Look out of the window, quick. Did you see that great big moth hovering over that flower?"

"Yes, Auntie, I caught one once, and thought it was a humming bird, but it wasn't. How still it is now, hardly moves."

"Bessie, that little fluttering thing has come to teach you a lesson. It says, 'Little girl sip the sweets. There are plenty of sweets in this world; take these, and let the bitter draft alone.' There, it's gone, but the lesson is left behind. It means, don't think so much of your troubles, and forget your good things; don't hang on disagreeable events of life, but sip the sweets of the pleasant fragrant flowers, for they are all around us if we only look for them. But see that great raindrop; and here comes another and another—here they come, a whole army."

"I'm glad I didn't go, Auntie; I staid and sipped some sweets too, didn't I?"

"Yes, darling, I hope you did, and Auntie trusts that all through life you will remember that roses may have their thorns, but they have their sweets also."

Rats in the Mines.

A Eureka paper has the following: Every mine in this township of any size and age has a large number of rats in it. The writer of this has often seen hundreds of them congregated to hear whistling or singing or to get the crumbs left by the miners after their dinners. These rats are not poor, weakly things, but are large and fat and show that they live on the fat of the land—that is the odds and ends of candles and the remains of dinners. We once secreted several candles at the beginning of the shaft, in order to save the trouble of carrying them with us, but what was our astonishment on going to get one, to find them all gone, except a small bit of wick. The rats had smelt them out and had a grand meal over our property. We levied an assessment on the boss to replenish the loss. The miners never injure a rat, in fact they will protect them very zealously. This amounts almost to a superstition, similar to that of the sailors. Frequently they have been tamed. The Eureka boys had a white one that was bob-tailed, and which used to come out very boldly and sit in the middle of a group of men upon its haunches and munch the tender bits thrown it like a squirrel would. It was a great pet of the men—either one of whom would have whipped the man who would dare to attempt to molest it. The rats underground are far more fortunate and favored than their surface cousins, for they have plenty to eat, with no fear of cats or traps, and while the surface one is either freezing or melting, the "miner rat" is enjoying an even, cool atmosphere. They, by eating up the stray bits, prevent them from decomposing, and when we think of the amount that necessarily falls from the miners' meals, this is an important item, for it helps to keep the atmosphere pure.

AN Atchison (Kansas) girl ate four pounds of wedding cake in order that she might dream of her future husband. And now she says that money wouldn't hire her to marry the man she saw in that dream.

AN old lady recently directed the attention of her husband to a pair of twins, remarking as she did so, "How much those two children do look alike, especially the one this way."

"No eetin apples in school ours," reads a sign on the blackboard of a school house in enlightened old Massachusetts, where education is supposed to sit on the top rail and make faces at ignorance.

GOOD HEALTH.

Rest.

Multitudes of earth's toiling millions have died while striving to make enough money to retire from business, and in a beautiful cottage on their own little farm to spend the remnant of their days in rest, in having nothing in particular to do. Perhaps one in a million of the hoppers does make money enough to enable him to retire to his country seat, and for a year or two, while he is fixing it up to his notion, all goes on charmingly, but when everything is completed to his mind and he has nothing more to take up his attention, he eats and sleeps and lounges around for a few months longer, falls into disease and dies; or if he has unusual force of character and power of observation, he notices that both health and happiness are passing from him, and tracing this to the true cause of an inactive body and an unoccupied mind, he resolves to "sell out" and plunge again into the vortex of business.

Recently an old schoolmate—youngee, graduating in the same class thirty-seven years ago—writes that "both body and mind are worn out; the slightest physical labor exhausts him," and, "any effort to think or study or even read, so wears the brain that life is felt as a burden." He withdrew from his professional duties, which he had performed in the place for twenty-five years, with honor to himself, having secured the love and confidence and respect of all who knew him. He gave up his calling for the purpose of obtaining rest, as a means of health.

The number of families is increasing every day, who give up housekeeping as a means of rest from family cares, and resort to that miserable and most unwise mode of life, boarding at a hotel or in some private family, to get more dissatisfied than ever in a few months, meanwhile falling into bad health and bad habits of various kinds.

All these classes of persons fail, miserably fail in their object, because they mistake the physiological meaning of the word "rest." Neither body nor brain are safely, truly and happily rested by doing nothing. The only healthful rest, as long as our physical and mental constitution remains as it is, is to be busy. Men of force and industry will everywhere tell you, "It is the hardest thing in the world to do nothing." No mortal man was ever made to be a loafer, to be a miserable drone. The true idea of rest is recreation, a making over again, a return to our accustomed vigor; and this is accomplished, not by allowing the machine to come to a standstill, for inactivity is rust and ruin to all mechanical contrivances, and death to all physiological structures. The true object of rest is recuperation, and that is best brought about as to the body, by exercising a different set of muscles; and as to the brain by calling into requisition a different set of organs and powers, causing the mind to act upon new objects. A better plan is not to get into the unhealthy conditions named, and they are avoidable by giving two hours daily to the exercise of a different class of muscles or to the investigation and study of objects of comparatively trivial importance and of a wholly different nature. The student should ride on horseback, or cultivate fruit and flowers; the merchant should employ his mind in liberal studies, in active personal and elevating charities, while the over-taxed and worried wife should pay a visit daily to some prudent friend, some cheery neighbor or suffering sister or child; the main idea in all cases being to spend two or three hours daily in open air activities wholly differing from the ordinary business routine.—*Watchman and Reflector.*

Unhealthy Foundations.

Dwellings built on solid and close foundations are always unhealthy. An instance is recorded of a locality in Illinois, where there were three settlements within visiting distance of each other, altogether containing about thirty families. One fall every family of the three settlements (with one exception) was sick with the prevailing fever of the season. The excepted household had an upper floor to their house (a half story) which was used for sleeping in by all the family, consisting of parents, three children and a workman, and they all escaped the fever. All the rest of the inhabitants lived in one story houses, and of course slept and kept all the stores on one floor. In a house with a close solid foundation, we found that things would mould if left standing for a few days. Preserves, placed upon a top shelf, in a short time became mouldy; but when placed in the second story they all kept well. A barrel of flour was left standing on the floor; when it was about two-thirds used, the sponge failed to rise, and as a consequence we lost two bakings of bread, it not being fit to eat. The barrel and flour were then taken out of doors and placed in the sun, so that the air could circulate freely around and under it, and after standing thus about six hours, it was replaced on the floor and set on two strips of boards one inch thick. By this means the flour was wholly restored and rendered good to the last. I could cite many other instances.

All receptacles for food laid under or near a dwelling should be very closely attended to, and so opened as to be thoroughly ventilated, as the instances cited very fully illustrate.

DOMESTIC ECONOMY.

How to Remove Spots and Stains from Woven Fabrics.

Taking out grease and other spots from clothes is an application of chemistry which has a practical interest for everybody. It demands a certain acquaintance with solvents and reagents, even though we may not understand the laws of chemical affinity on which their action depends. The general principle is the applying to the spot a substance which has a stronger affinity for the matter composing it than this has for the cloth, and which shall render it soluble in some liquid so that it can be washed out. At the same time it must be something that will not injure the texture of the fabric or change its color. The practical hints we shall give are condensed from a variety of foreign sources.

The best substances for removing grease or oil are: 1. Soap. 2. Chalk, fuller's-earth, stearate or "French chalk." These should be merely diffused through a little water to form a thin paste, which is spread upon the spot, allowed to dry, and then brushed out. 3. Ox-gall and yolk of egg, which have the property of dissolving fatty bodies without affecting perceptibly the texture or colors of cloth. The ox-gall should be purified, to prevent its greenish tint from degrading the brilliancy of dyed stuffs, or the purity of whites. Thus prepared it is the most effective of all substances known for removing this kind of stains, especially for woollen cloths. It is to be diffused through its own bulk of water, applied to the spots, rubbed well into them with the hands till they disappear, after which the stuff is to be washed with soft water. 4. The volatile oil of turpentine. This will take out only recent stains; for which purpose it ought to be previously purified by distillation over quicklime.

An earthy compound for removing greasy spots is made as follows: Take fuller's earth, free from all gritty matter; mix with half a pound of the earth, so prepared, half a pound of soda, as much soap, and eight yolks of eggs well beaten up with half a pound of purified ox-gall. The whole must be carefully triturated upon a porphyry slab; the soda with the soap in the same manner as colors are ground, mixing in gradually the eggs and the ox-gall previously beaten together. Incorporate next the soft earth by slow degrees, till a uniform thick paste be formed, which should be made into balls or cakes of a convenient size, and laid out to dry. A little of this detergent being scraped off with a knife, made into a paste with water, and applied to the stain, will remove it.

Tar and pitch produce stains easily removed by successive applications of spirits of turpentine, coal tar, naphtha, and beozine. If they are very old and hard, it is well to soften them by lightly rubbing with a pledget of wool dipped in good olive oil. The softened mass will then easily yield to the action of the other solvents. Resins, varnishes, and sealing wax may be removed by warming and applying strong alcohol. Care must always be taken that, in rubbing the material to remove the stains, the friction shall be applied the way of the stuff, and not indifferently backwards and forwards.

Most fruits yield juices which, owing to the acid they contain, permanently injure the tone of the dye; but the greater part may be removed without leaving a stain, if the spot be rinsed in cold water in which a few drops of squa ammonia have been placed, before the spot has dried. Wine stains on white materials may be removed by rinsing with cold water, applying locally a weak solution of chloride of lime, and again rinsing in an abundance of water. Some fruit stains yield only to soaping with the hand, followed by fumigation with sulphurous acid; but the latter process is inadmissible with certain colored stuffs. If delicate colors are injured by soapy or alkaline matters, the stuff must be treated with colorless vinegar of moderate strength.

Fresh ink and the soluble salts of iron produce stains which, if allowed to dry, and especially if afterwards the material has been washed, are difficult to extract without injury to the ground. When fresh, such stains yield rapidly to a treatment with moistened cream of tartar, aided by a little friction, if the material or color is delicate. If the ground is white, oxalic acid, employed in the form of a concentrated aqueous solution, will effectually remove fresh iron stains. Acids produce red other stains on the vegetable colors, except indigo. If the acid has not been strong enough to destroy the material, and the stains are fresh, the color may generally be restored by repeated soakings in dilute liquor ammonia, applied as locally as possible. Photographers frequently stain their clothes with nitrate of silver. The immediate and repeated application of a very weak solution of cyanide of potassium (accompanied by thorough rinsings in clean water) will generally remove these without injury to the colors.

CREAM APPLE PUDDING.—Take a deep tin pudding dish and cover it with a layer of the best pie crust. Have some good, tender apples cut fine and spread over the paste a layer of apples, with sufficient sugar for sweetening, and cinnamon and nutmeg to taste; again a layer of apples, etc., until your dish is filled, when you pour over it a tea-cupful of cream, add your cover and bake to a light brown.



PUBLISHED BY
DEWEY & CO.

A. T. DEWEY. W. B. EWER. G. H. STRONG. J. L. BOONE

PRINCIPAL EDITOR.....W. B. EWER, A. M.

OFFICE, No. 224 Sansome street, Southeast corner of California street, where friends and patrons are invited to our SCIENTIFIC PRESS, Patent Agency, Engraving and Printing establishment.

SUBSCRIPTIONS payable in advance.—For one year, \$4; six months, \$2.25; three months, \$1.25. Remittances by registered letters or P. O. orders at our risk.

ADVERTISING RATES.—1 week. 1 month. 3 months. 1 year
Per line.....25 .80 2.00 5.00
One-half inch.....1.00 3.00 7.50 24.00
One inch.....2.00 5.00 14.00 40.00

Large advertisements at favorable rates. Special or reading notices, legal advertisements, notices appearing in extraordinary type or in particular parts of the paper, inserted at special rates.

SAMPLE COPIES.—Occasionally we send copies of this paper to persons who we believe would be benefited by subscribing for it, or willing to assist us in extending its circulation. We call the attention of such to our prospectus and terms of subscription.

No Quack Advertisements Inserted in these columns.

SAN FRANCISCO:
Saturday, June 19, 1875.

TABLE OF CONTENTS.

GENERAL EDITORIALS.—Buffalo Pitts Thresher; A Wheel within a Wheel, 401. A Great Waste to be Avoided; The Fourth of July; About the Grain Weevil; San Francisco Enterprise, 405. America in Japan; Cultivation of Tea; Government Land Questions, 409. Tricks, Funny and Otherwise; Commencement Day in Berkeley; A Visit to Immigrating Colonies; Patents and Inventions, 412. **ILLUSTRATIONS.**—Buffalo Pitts Thresher, 401. Cultivation of Tea, 409. **CORRESPONDENCE.**—Reclamation and Winter Flooding; Potato Wealth and Potato Wisdom; Flax Culture; Grasshopper Law in Russia; Calaveras Valley; The Late Rain, 402. Silkworm Eggs and Cocoons, 403. **SHEEP AND WOOL.**—Sheep Raising; Eastern Wool Markets, 403. **USEFUL INFORMATION.**—Cheap Amethysts; Boyton's Life Saving Dress; Utilizing Old Rubber; Plating with Aluminum; To Remove a Tight Fingerring; Unting Glass to Iron, 403. **PATRONS OF HUSBANDRY.**—History of the Patrons of Husbandry; Grange Room; On Hand; Locating National Grange Headquarters; Origin and Progress of the Grange; Are Co-operative Stores to be Successful? 404. **AGRICULTURAL NOTES** from various counties in California and Oregon, 405. **HOME CIRCLE.**—The Golden Side (Poetry); Riverside; The Perfection of Nature; A Rare Circumstance; Courtesies to Parents; To Crochet a Breakfast Shawl; Women of Pluck; How They Kill 'em; A Sunny Face; Pronunciation; Lady School Superintendent; Some Spells, 408. Sun Worship; A New Cause of Trichine in Pork; A Good Example, 407. **YOUNG FOLKS' COLUMN.**—The Ten Commandments in Verse (Poetry); A Little Teacher; Rats in the Mines, 407. **GOOD HEALTH.**—Rest; Unhealthy Foundations, 407. **DOMESTIC ECONOMY.**—How to Remove Spots and Stains from Woven Fabrics; Cream Apple Pudding, 407. **THE HORSE.**—Loss of Appetite; Horses for Farm Work; Raring Horses' Feet, 410. **HORTICULTURE.**—The Lima Bean; Pomology at the Centennial, 412. **MISCELLANEOUS.**—What it Will Amount To; What Becomes of Drift Coal; For the Horses; To Clean Gold Chains, 403. Industrial Items; General News Items, 405. Agricultural Items, 412.

A STRAW BURNER AT WORK.—We had the satisfaction on Friday, June 11th, of witnessing the operations of one of Rice's straw burning engines, not in the field, however, but in front of the establishment of O. B. Fenner, machinist, No. 7 First street, San Francisco, though as the working of the heating arrangement of the boilers was the principal point of interest with us, the occasion afforded a satisfactory exhibition. We were really surprised at the small amount of fuel in the form of straw that the boiler was consuming, and also at the ease and readiness of feeding. We were also more than ever convinced of its safety in the field in regard to fire.

The engine was being run under the supervision of J. W. Riley, who is about to enter the harvest field with it to embark in the threshing campaign. Mr. Riley has been having some repairs and alterations completed at the establishment of Mr. Fenner, and everything is now in prime order. We bespeak for him the good will and confidence of the farming community.

ON FILE.—"Yellow Jackets," G. B. C.; "Professional Training School for Girls," J. C. C.; "What Are They?" J. W. M.; "Visit to the Hop Plantations," G. C. H.; "Azura, Los Angeles Co.," P. I. S.; "Notes from Sacramento Co.," G. R.; "Tarantulas," "Invalid's Home," "The Australian Lemon," "Subscriber," "From Santa Rosa," T. B. A."

STRAWBERRIES are becoming quite plentiful in the Walla Walla market. There are also a few cherries. In addition to other vegetables, new potatoes and peas are coming in in small quantities. But all early fruits and vegetables are a week or two later this season than they usually are, owing to the spring having been rather cool and damp.

A Great Waste to be Avoided.

There has hitherto been a short cut to the important question, What shall California do with its surplus fruits? This cut leads to the San Francisco bay. This road to fruit destruction is a very broad one, and many be the wagon loads that go therein. Possibly the number may have been exaggerated for the sake of making out "a case," as has undoubtedly been done in connection with a certain other broad road, and, for our part, we never could believe that "the bay" has played as prominent a part in the home consumption of fruit as is generally supposed, though we do not doubt that when the bay of San Francisco shall give up its rotten fruit, it will aggregate a large amount.

We cannot afford to make this annual fruit offering to Neptune; but with the past unsatisfactory relations of demand and supply, it has been a matter of convenience rather than of sacrifice on our part. It is the profits that might be made on this fruit if it were properly handled, more than the fruit itself, that we cannot afford to lose. This is apparent to all who have given any consideration to the fruit product, and especially so to those best acquainted with the commercial aspects of the subject. It has been suggested that San Francisco should possess an establishment for working up the over-supply of this great fruit market into jellies and dried and candied fruits.

It needs but a glance to thoroughly comprehend the situation, and the difficulties in the way of getting out of it are by no means insurmountable. During the past year the feasibility of locating in this city an Alden fruit drying establishment has been discussed. The movement had its origin in a desire to prevent the waste of unsold fruit in this market, but a thorough consideration of the subject, in connection with some new developments in the fruit trade, has resulted in a plan which will really be a new departure in the fruit business. It is proposed to combine with fruit drying the manufacture of jellies and candied fruits. In the first of these products, dried fruits, we are probably ahead of our Eastern and foreign competitors; but in the two latter, jellies and candied fruits, we are evidently behind them. There are now in our own market jellies of superior quality, of various fruits, manufactured at an establishment in the city of New York. Where do they obtain the material for these jellies? Why, these delicacies are mostly made from the parings and other fruit refuse of not only New York and vicinity, but of districts and cities far distant. We are informed that tons of the skins and cores of fruits are sent from Chicago to this establishment, and there converted into delicious jellies, which find a ready sale in Chicago and all other cities at fifty cents per pound.

This system is, of course, as practicable in California as in the Eastern States; an establishment of this kind could utilize, not only the waste of San Francisco and vicinity, but would assist in economizing the fruit of the whole State.

In the matter of candied fruits something should be done at once. Here we have, in this city of San Francisco, candied fruits prepared in France and selling here at \$1.25 to \$2.00 per pound. The material is of such fruits as we produce in abundance, the processes are known to our people, and there is no difficulty in the way of a great success in this direction, with the exception of the characteristic unwillingness, and, possibly, inaptness of the American people to pander to the taste for luxuries. Have we not been a little too democratic in our estimation of the wants of the world? It strikes us that we have; and that we have committed the error of considering the needs simply, and not the wants of humanity.

Especially has this been the case in our fruit dispensation. Not that we should relax our efforts to cheapen and popularize fruit, but we should at the same time consider the fact that there is a class of worthy and wealthy people—none the less worthy for being wealthy—who will have fruit luxuries, and are both willing and able to pay good prices for them.

It would be well for the fruit interests of the country—and for various other industries—if these wants were duly recognized. It is also essential that they are duly respected; and those who turn their attention to candied fruits should not indulge in the delusion that they have "got a soft thing here," and commence figuring how they can produce an article at a cost of a few cents per pound that they can sell for \$2 per pound. The very highest grade of fruit should be used; nothing should be stinted in time, labor or materials employed in preparing, and everything that will add to its attractiveness on the grocer's shelf as well as on the consumer's table should be supplied in a liberal and tasteful manner. Liberality and skill will be appreciated here, and will be amply rewarded.

From what we can learn concerning the process of preparing candied fruit, we are convinced that the Alden process will be an important auxiliary in the early stages of the process; and the establishment which is expected to be founded in this city will probably combine fruit drying, the manufacture of jellies, preparing candied fruits, and, we hope, making preserves.

In connection with this call for a higher reach in our fruit preparation, we would suggest that the time has come when glass should,

as far as practicable, be substituted for tin in putting up our fruits; the use of tin being a detriment to its quality and attractiveness. There is too much of the "go it blind" system in purchasing fruits put up in tin. Even the mere uncertainty attending all such purchases, takes somewhat from the edge of the appetite, while the disappointment resulting from some of them blunts it altogether. And we would further state here that the public taste is evidently undergoing a change from canned fruits to high grade dried and candied fruits and jellies, and there is also a decided inclination to return to old style American "preserves," which went so largely out of use at the advent of canned fruit. These changes in the public appetite should be noted and gratified.

We began this article with an allusion to the waste fruit dumped into the bay of San Francisco, and now find ourselves here dilating upon the highest grade of fruit luxuries; but this waste is really the basis of the establishment to which we allude, and we believe it will result in the high condition of fruit preparation described above. Its effects upon the fresh fruit market of this city would be decidedly healthful, working to the advantage of both producer and consumer. We only wish we could be as certain that it will be in operation the present season, as we are that it will eventually be established and produce these results.

The Fourth of July.

If the inherited patriotism of three generations failed to remind us of the recurrence of our national birthday, the notes of preparation which come from every side would impress the fact that the anniversary of Independence is at hand. California, though yet in her youth as a member of this confederation, which had its christening in the last century, falls behind none in her devotion to its principles and reverence for the memory of its creators.

From all sections of the State we note arrangements being made, and by the time this number of the Rural is placed in the hands of our readers, decisive action will have been taken by many for the proper observance of the day. We notice by one of our exchanges that some over proper correspondent is averse to the wasting of powder and indulgence in the post festum headache. But we apprehend that few Americans will be willing to forego the traditional bell ringing, cannon firing, drum beating and speech making celebration of Independence which has always marked the day as the brightest in our calendar.

The present year is a particularly memorable one, marking, as it does, a century since the first blood was shed in that struggle which another twelvemonth stamped with the impress of independent nationality, the prelude to one of the most eventful dramas in the world's history. '75 was to '76 the needful nursery which gave our ancestors training for that irrevocable plunge which was to make or mar their fortunes.

The ninety-ninth anniversary of the independence of the United States! What a deal of crystallized progress, of condensed history is contained in these words. To us they are pregnant with much. What would they be if they could be heard by those now hushed in death? We can understand the meaning of the lines which Dr. Holmes puts in the mouth of his heroine of Bunker Hill:

"Tis like stirring living embers, when, at eighty, one remembers
All the aching and the quakings of "the times that tried men's souls;"
When I talk of Whig and Tory, when I tell the Rebel story,
To you the words are ashes, but to me they're burning coals.

About the Grain Weevil.

A correspondent writes to the Rural Press from Anaheim, asking: "Whether there is any effectual means of keeping the weevil out of grain when stored in sacks; and do they generate in the grain?"

There is probably no preventive that is applicable to large quantities of wheat in store; but if our correspondent makes the inquiries with a view only to keeping the weevil from his seed grain, some of the following methods may be available:

Dr. Harris says these insects are effectually destroyed by kiln-drying the grain. It is said that grain if kept cool, well ventilated and frequently moved, will be free from their attacks. Curtiss states that the larvae as well as the weevils are destroyed at 190 deg. Fah., but it also scorches the grain somewhat; but cases are given where rooms in which grain was stored were heated to 130 deg. by hot water pipes, this answering every purpose as far as the weevil is concerned, while the grain did not fail to germinate. It is said that fleeces of wool spread over loose grain attracts and kills the insects. Benzine is obnoxious to them, and a little of this sprinkled about in the vicinity of the grain would probably keep them off. But it is said that the scent of turpentine or the fumes of sulphur does not seem to discommode the insects. Close, dark rooms are what the weevil delights in.

The egg of the granary weevil is deposited on the grain the larva burrow inside and feed upon its inner substance, and the perfect weevil makes its escape from a small hole bored in the outer skin.

San Francisco Enterprise.

The Construction of a Model Mill.

Keeping well abreast with other branches of mechanics, the wheel-wright has made improvements which entitle him to a first rank among our progressive artisans. California wheat has a reputation which is not confined to any section, but maintains for itself a place in the markets of the world. By the use of improved milling facilities, we are able to make a flour worthy of our wheat. The demand for flouring and grist mills is rapidly on the increase on the Pacific coast. To meet this demand, the firm of Messrs. Joseph Wagner & Co., of this city, have turned their attention, and they are now supplying all kinds of milling machinery and ready to furnish estimates or contract to order anything from a sixteen-inch portable mill to the largest class flouring mill, at their establishment, Nos. 113 and 115 Mission street.

Messrs. Wagner & Co.

Manufacture one of the best machines now in use for extracting oats, barley and cooke from wheat. We refer to the improved barley and grain separator. This ingenious device is the invention of Mr. M. O'Brien, junior member of the firm, and has but recently been patented. The improvement which distinguishes this separator from all others is simple but most effective. By means of an overflow screen attached, the capacity is increased from forty bushels per hour, the maximum allowed for ordinary separators, to 150 bushels per hour. The capacity is regulated by spouts, which can be fixed to separate any desired number of bushels per hour.

To give some idea of the facilities possessed by this house for constructing mills, we might say that a little less than two months since Messrs. Wagner & Co. contracted with Mr. Jacob Samm to put up a mill for him on First street, corner of Clay, Oakland. It is now completed and ready for grinding. The building which contains the mill is forty by sixty feet, with an addition for an engine room, and three stories high. An examination of the premises conveys an excellent idea of the

Model Mill.

It is fitted with the most approved machinery throughout, has five run of stone and will turn out 200 barrels of flour in twelve hours. The mill, which faces on First street and the water front, is admirably situated to receive grain and deliver flour either by vessel or rail, as a side track of the O. P. R. R. runs along First street.

The wheat after being received is taken from the bin and subjected to a rougher to remove the straw; then elevated, run into a suction leg and after being submitted to three suction passes into the

O'Brien Separator

Where all the barley, oats, etc., is removed; from the separator it goes to the smut machine, one of the "Eureka" pattern, for which Messrs. Wagner & Co. are the agents on this coast, where it is cleaned of smut. It is then carried to the wetting conveyor and thoroughly wetted. This is a phase of milling unknown to millers of the Eastern States and is made necessary by the peculiar dryness of the California wheat, which requires a good degree of moisture to fit it for grinding. It is now elevated to the wetting bins where it is allowed to stand from twelve to twenty-four hours. This raises the outer and toughens the inside coat of the berry of the grain. It is then sent through the smutter a second time to remove the outside coat, already loosened, leaving the berry perfectly clean. The grain is then run into stock hoppers over the mill stones and ground. As it comes from the stones the flour is put into the bolt chest where it is separated from the bran and middlings. The middlings are then put through a La Croix purifier which separates all the light bran and fuzz from them, and the residue, which contains a large amount of the richest gluten of the wheat, is reground, and what was formerly only an inferior grade of flour is made by this improved process into the best brands. The

"Excelsior" Bran Duster.

Another first class machine of the kind, for which Messrs. Wagner & Co. are agents, then takes charge of the bran. What is saved by this machine is put into superfine flour. After the flour is ground and graded it is ready for the "Eureka" packer, a machine which will pack for delivery 150 barrels per day.

The milling machinery is driven by a fine engine, manufactured by the Union iron works, of one hundred horse-power.

We have been thus particular in noting the process of manufacturing flour at this mill as it is done by the most approved machinery worked on the most approved plan. Constructed as the mill has been in so short a time and yet so admirable in all its arrangements and perfect in all its details, it reflects a great deal of credit upon the contractors and upon the city which affords encouragement to their enterprise and skill.

NEBRASKA STATE FAIR.—Mr. D. H. Wheeler, Secretary of the Nebraska State Board of Agriculture and State Horticultural Society, sends us the premium list of the fair of this association, which commences at Omaha on September 21st and continues four days. The Rural Press sends its hearty wishes for a thoroughly successful exhibition.

America in Japan.

On Wednesday of last week the steamer *City of Tokio* arrived at San Francisco, and among the passengers was General Horace Capron, who returned from a four years' term of service in Japan. General Capron will be favorably remembered by our readers as United States Commissioner of Agriculture, which position he resigned to accept an appointment from the Japanese government as Chief of the Colonization Bureau, for the purpose of establishing colonies in the Islands of Nippon and Yezo. The engagement was for two years only, but the magnitude of the scheme rendered it necessary to extend the period to four years, and if ever a man retired from the labor field at night with the satisfaction of leaving there evidence of a good day's work, General Capron leaves in Japan four years' work that will rank among the noblest achievements of the century. His services are duly appreciated and his success has been complimented in the highest degree by the Government to which they were rendered, and other nations have acknowledged their efficiency.

Two days after the arrival of the *City of Tokio*, a representative of the *RURAL PRESS* called upon General Capron, at the Grand Hotel, to present the compliments of the establishment, and to obtain some points of information for the benefit of our readers. We found the general in excellent health and spirits, and had an extremely pleasant interview with him. He will soon publish an elaborate report of the colonizing scheme and labors attending it, but in the meantime he is extremely communicative on all matters relating to it. We are promised a copy of this report as soon as published, and will then draw on its contents for the edification of the readers of the Press, but for their more immediate satisfaction we give them the results of our interview with General Capron on Friday last.

The Colonization Bureau imported to the Islands of Nippon and Yezo, all the valuable fruits and vegetables grown in the United States; also choice selections from our farm stock. The more progressive of the Japanese have been aware that a too exclusive diet of rice during a period of many centuries is producing physical degeneracy and other deleterious consequences among the people, and that the demand for the introduction of new varieties of food is imperative. Besides, the cultivation of rice, to the exclusion of nearly all other crops, has added to the isolation of Japan, as the too exclusive growth of wheat will to California, if we are not careful, and relying solely on this, and the inability to one or more seasons' failure of crops, rendering it necessary to store away a large supply. It is an established rule with the Japanese Government to retain in store a sufficient amount of rice to furnish food for the nation for a term of three years, in case three successive failures in crops should occur.

The fruits, vegetables, grains and grasses, introduced by the Bureau of Colonization have proved successful in a marked degree, and the varied food which they supply is extremely popular with the people; the demand for the fruit trees especially, being so great from different parts of the country that the nurseries of the colony are becoming exhausted, necessitating fresh importations. General Capron informs us that the introduction of foreign fruits was the subject of very discouraging predictions; the common impression was they would greatly deteriorate in quality, but the result has been perfectly satisfactory. He says that the Bartlett pears grown by the colony were equal to any ever eaten by him.

The stock imported was of the first class, pure blooded in all cases. Japan is poorly supplied with cattle. Beef does not enter into their system of food, and dairy products are unknown. The country has hitherto produced but little that would furnish feed for cattle, but experiments have proved that grasses, grain, and root crops, will do well there. The sheep imported by the colony were mostly Lincolns, as mutton, not wool, was desired. This meat has been received with remarkable favor by the people, and is now in great demand. Swine of the best breeds were also introduced, and bid fair to become of great value to the country. The horse supply of Japan was also poor in the extreme; the animals being few in number and of inferior quality; but by crossing the blooded stallions imported by General Capron upon the native mares of the country, a good stock of horses is produced.

It is apparent that Japan is inaugurating a radical change in the national diet, and it is also apparent that she will be compelled to supply these new wants from her own resources, as she has little to exchange for them, and can not afford to purchase outright. But let her introduce our grains, vegetables, fruits and stock—and this is what she is now doing—and extend their production throughout the Empire, and a disaster to their one crop, rice, will lose its terrors to them; and a portion of the area given to this crop, when devoted to the new products, will afford an amount of food greatly in excess of its yield in rice, and besides rendering her less dependent upon one crop, will release from storage the three years' supply, furnishing a large export to exchange for the products of other countries.

The General speaks in the highest terms of

the adaptability of the Japanese character, their imitative faculties being truly wonderful; but from our conversation with him on this point, we are inclined to the belief that they possess a latent creative power that will, when allowed an opportunity to display itself, astonish those who have presumed to "place" Japan in the scale of nations. In some branches of art and mechanism they have always excelled, and they have proved themselves equal to all tasks required of them in the new order of things, such as the construction of bridges, the repairing and reconstruction of engines, making all kinds of tools, etc. Their iron, of which they have an abundance, is of superior quality, and they are especially skilled in working it. The shovels, spades, forks and other tools taken there by General Capron were a novelty to the people, but they at once took to their use, and to their manufacture also, and he assures us that the shovels of their make are equal to Ames' best; while their hay, spading and other forks are superb in temper, handiness and finish. He speaks very discouragingly of the prospects in Japan for American

favor to us; and will take this occasion to declare that the cause of civilization and industrial progress are greatly indebted to General Capron for services rendered during his five years' mission. Although the General is upwards of seventy years of age he is not disposed to retire from the field of labor. He still possesses the requisite vigor to render much valuable service to the cause of American agriculture, and is particularly blessed with the good nature which adds to the enjoyments of age, and to its usefulness, also.

It is the intention of General Capron and wife to spend a few months in looking about the State of California, after which they will return to their former home in Washington, and probably remain there.

Tea.

Preparation for Market and Varieties Sold.

We have thus given a partial description of the methods of cultivation of tea in Japan, concluding with some remarks on the way the

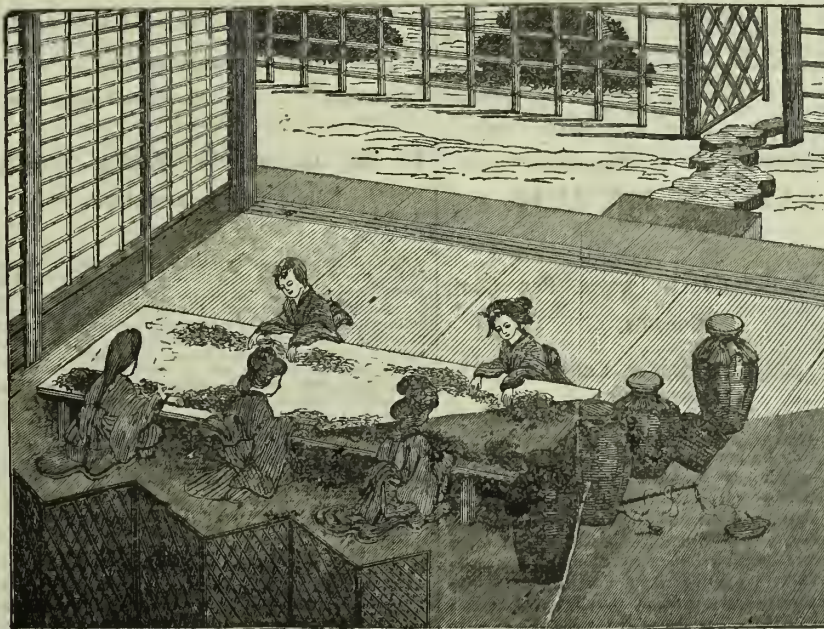


TEA PLANTATION—FUSI-YAMA IN THE BACKGROUND.

agricultural implements and all other machinery.

Previous to the importations of the Colonization Bureau sewing machines were entirely unknown in Japan; now a person cannot pass along the streets of their cities the distance of one of our blocks without hearing the click of the sewing machine. They do not make them,

leaves were dried. We now continue our description with illustrations showing a tea plantation under the shadow of the sacred mountain, Fusi-Yama, and young girls picking and sorting the leaves. After drying the next process consists in sifting and sorting the leaves, and this is done in another house where young girls are seated around flat tables with



SIFTING AND SORTING TEA LEAVES.

of course, but they are adepts in running and repairing them. The result of these clickings of sewing machines is seen in the clothing of the people. They are adopting at a rapid rate the European style of dress.

They are adopting the European manners quite as rapidly as the style of dress. Mrs. Capron, who accompanied the General on his mission and returns with him, favored us with the result of her observations in regard to the manners and dress of the people, her remarks being highly instructive and entertaining. Both she and her husband speak of the people as being extremely polite and affable, especially toward Americans, to whom they take an apparently natural liking. Honesty in trade is carried out to a point truly remarkable. In answer to our inquiries concerning the industrial habits of the people, we were assured that this is one of their most notable characteristics, and that as servants they cannot be surpassed.

We are indebted to General Capron and lady for many other facts and suggestions, which will be given to the readers of the Press as occasion offers. This we set down as a special

leaves again, and putting the 'finishing touch' on the whole process; this is absolutely essential to preserve the tea and render it fit for transportation. In the firing ten per cent. in weight is lost. The fresh tea odors which greet you as you pass the open windows of these tea firing establishments, are such as would make our lady friends smack their lips with delight. Such is the process of preparing tea for the market in Japan.

The consumption of tea has increased at a marvelous rate both in Europe and America during the past fifty years. The *American Exchange and Review* states that in 1711 it was only 141,995 pounds. In 1874 it was 137,442,264 pounds. In the United States the consumption in 1791 was 985,997 pounds and in 1874 it was 54,138,599 pounds. San Francisco imports of China and Japan for the past fifteen years, according to the *San Francisco Journal of Commerce*, have amounted to 79,487,522 pounds, worth \$29,735,447.

Seven-eighths of the teas sold in this market are Japanese, and these are daily coming into favor in the East.

Green Teas

Imported in San Francisco are divided into the following varieties: Moyune, Fy Chow, Teen Kai, Pingsney, Young Hyson, Twankay, Gunpowder, Imperial and Hyson. They come chiefly from the northern tea districts of China bordering on the great river Yang Tse Kiang. These teas are classed as divided into different varieties as: Gunpowder and Imperial of first, second and third class, and Hyson Skin and Twankays; fine young Hyson, first, second and third. The Moyune district is recognized as producing teas the most superior in flavor. Next comes Fy Chow and Teen Kai, which are rated as about equal in value. Pingsneys, although the best in appearance, are the poorest in flavor. All these teas are manufactured in Canton, but of low and medium grades.

Black Teas

Are produced in largest quantities in the districts of Oo Nam and Huh Pah. Here are produced Congous and Sou Chongs for the English market. In the neighborhood of Foo Chow is the principal producing district of Oolongs, which are favorites in the United States. They are teas that run from 20 cents to \$1.50 per pound. The island of Formosa and the neighborhood of Amoy have, within the last five years, produced a large quantity of very superior Oolongs, as also has Japan, and this last circumstance has urged the choice growers to extra exertions to improve the quality of their own. Specimens of all kinds of teas have been brought from time to time to this market, more as curiosities than anything else, among which we may mention the celebrated Mandarin tea and the Brick tea, which is sold at from 90 to 95 cents per pound. Frequently it is said teas have sold for less in the market than what they have cost to produce in Japan.

One great feature of the trade in this city has been the system of auction sales, which are held monthly, and sometimes oftener, and at which from 3,000 to 5,000 packages at a time are usually disposed of. There are in this city not less than twenty-five firms who import more or less, and most of whom also act as jobbers; and who have not less than a million and a half dollars invested in the business. This does not include those who are jobbers only, or who are retailers.

Government Land Questions.

Mr. John Roberts, of Cholame valley, Monterey county, requests answers through the *RURAL PRESS* to the following questions:

"With regard to the granting 160 acres of Government land to settlers who will plant one fourth in forest timber, is this privilege given irrespective of his homestead and pre-emption quarter section, or can he now take up three-quarters; and is it necessary to build and live on the quarter one intends to plant timber on?"

We have called at the land office for information on these points, and the officials give an emphatic "Yes" in answer to the above questions.

"Is there any law permitting stock men to hold unoccupied Government land by fencing as much as they wish? Sheep men are continually at loggerheads about their right to certain ranges; but if they could hold them from others by fencing it would be more satisfactory."

The position of the Government on this point is, we are informed, as follows: Where parties fence off Government land for stock ranges their possessory claims will be recognized, and they will be protected in the same against oppression; but they do not become owners of the land; and the possessor in obtaining ownership must do so by the usual process; meantime the Government retains the same right to dispose of this as of unoccupied land. If this matter were properly understood much disappointment and ill feeling would be avoided. At present there are two extreme views prevailing to some extent; the advocates of one declaring that the Government recognizes no possessory title in such cases, while the opposite party claim that the possessory rights thus acquired extend even to the power of conveyance. Both of these views are incorrect, as will be seen by the explanation which we give above. The many enquiries received by us in regard to matters pertaining to Government lands indicate a want of definite knowledge on this subject generally; and to supply this want we propose to issue soon a pamphlet containing the principal laws in relation to U. S. lands.

THE HORSE.

Loss of Appetite.

MESSESS. EDITORS:—I should feel extremely obliged if you would inform me what I can give a horse to improve his appetite. He is a big raw boned animal, his only fault being he does not eat enough to bring himself in condition. By answering the above you will oblige

A FARMER AND SUBSCRIBER.

San Mateo Co., June 10th, 1875.

[The indications are that your horse is afflicted with chronic gastritis. This disease is produced by various causes which are sometimes traceable to the rearing of the animal. The horse being unable to vomit, and the stomach being thus deprived of the power of making its condition known, permanent injury may be established before the owner is aware, and often without any blame on his part; for if the colt was raised on sour land the functions of digestion may gradually become deranged, though no perceptible indications may appear until the animal is five or six years old. Or a winter's keeping on food, either too compact or too coarse, may produce the disease, or, again, it may be caused by overloading the stomach after long abstinence.]

But whatever the cause may be, more reliance is to be placed on habit than on medicine; and a sudden cure is not to be expected. Allow plenty of exercise, but guard against overworking; give a fair amount of pasture feeding; when stabled see that the quarters are kept clean and well ventilated; be sure and have the hay of good quality, giving with the hay and grain a good proportion of carrots or other roots. And we would state here, that sometimes the disease is caused, or aggravated, by imperfect teeth, the animal being unable to properly masticate its food. This should be considered and the food regulated accordingly.

As acids in this mode of treatment bitters and alkalies may be administered, and where the appetite is particularly fastidious it is advised to give an ounce of a mixture of equal parts of coriander seeds and common salt at each meal.—Eds. Press.]

Horses for Farm Work.

A writer in the *Mark Lane Express* gives the following as the desirable points for consideration in the breeding of horses for farm-work:

"The head should be comely, but not so small as that of the running horse, as it enables the animal to throw more weight into the collar. He should be broad and flat in the forehead, have neat, well set on ears, prominent placed eyes, thin eye-lids, large nostrils, neat neck and be deep towards the chest; not very high in the withers, with upright shoulders, broad forearm, broad, flat bone below the knee, rather short pasterns, good round feet not too flat or too upright, plenty of hoof, clean leg, straight back, with plenty of loins, and ribs well arched. He should be long on the back rib and long in the quarter; the haunch should be strong, the hip well down, the hock joint broad; and for a breeder, no animal should be used that is not free from curb, bog or bone spavin, splint or side bones. Horses with well developed muscles and good constitution are easily kept, and can endure great fatigue."

RASPING HORSES' FEET.—Rasping a hoof until it will spring under your finger, is far too dangerous a plan for making things look well. This rasping takes the strong surface off the hoof, and nature, trying to make up for the evil done by injudicious hands, forms a hard glossy surface to protect the foot. This glossy surface takes the place of the previous tough horn, and at the next shoeing the foot will probably split a little at the nails, and not unfrequently the nail punches a piece out before it.—*Cor. Canada Farmer.*

CARD.

IMMIGRANT BUREAU,
123 CALIFORNIA STREET,
SAN FRANCISCO, CAL.

For the purpose of directing immigrants, this Bureau desires information of all irrigating ditches in process of construction.

We can, with safety, send immigrants to neighborhoods where land can be irrigated.

Please state definitely where such ditch is taken out from the river or stream, and the land through which it passes or will pass, and, if possible, send also a description, by section, of the land proposed to be brought under the influence of the water.

Such information, if given to the Bureau in detail, will be used in directing immigrants to the lands, and will tend to settle the country so designated.

If you have or can procure a map of the exact location of the ditch it will be of great service.

"Indispensable," Eto.

ST. HELENA, May 13th, 1875.

Messrs. Dewey & Co.—Enclosed please find check on Grangers' Bank. Continue my subscription; I can't get along without the *Rural*. To those who feel an interest in the Grange movement, or in any branch of agriculture, the *Rural* is one of the indispensable luxuries. If they carefully read and analyze its contents, they can find information enough in almost any number to pay their yearly subscription.

Respectfully yours,

J. W. C.

Nature's Great Specific.

The Extraordinary Virtues of Bethesda Mineral Spring Water.

In this age of ceaseless activity and general excitement, there are so many influences at work to engender disease and enfeeble health that few persons possess sufficient physical stamina to enable them to dispense altogether with corrective and restorative agencies. Of course, under the circumstances, there are numerous specifics offered as efficacious in the several departments of disease. Experience, however, has proved that most of them are worse than useless, inasmuch as they either further impair the vital powers or aggravate suffering. Medical science, on the other hand, while it reaches the diagnosis of disease and is able to prescribe certain remedies to check for a time the progress of decay, does not, in the great majority of instances, restore the human system to its natural vigor and eradicate the seeds of disease which render health impossible while they remain.

A Wonderful Discovery.

Nature, however, has been more friendly to the human family than medical science per se, and the most malignant diseases have been brought under control by her agency. The cures, for example, effected by the use of Bethesda Mineral Spring Water have been of so remarkable a character as not only to attract universal attention, but to cause the utmost surprise in the scientific world. This discovery may truthfully be pronounced one of the most important that has ever been made in connection with disease, and as the reputation of the water is now established beyond all cavil, and its achievements as a specific conclusively demonstrated, nothing but the bare facts need be stated, for the tests have been so thorough and the results so satisfactory that nothing can really prejudice the case.

Triumph over Deadly Diseases.

There is no known remedial agent that can cure certain diseases as effectually as Bethesda Water. It is specified in all cases of diabetes, inflammation of the kidneys, inflammation of the neck of the bladder and urethra, inflammation of the bladder, dropsy, gouty swellings, stoppages of urine, albuminaria, rosy or cloudy urine, brick dust deposits; thick, morbid, bilious and dark appearing urine, with bone dust deposits; burning sensation with sharp pains when voiding urine; hemorrhage of the kidneys; pain in the kidneys and loins, torpid liver, indigestion, calculus, and female weakness.

Almost as soon as the water was discovered its great virtues were established in the most positive manner. Cure followed upon cure, marvels succeeded wonders, the most aggravated form of disease succumbed to this potent and all powerful remedy, the hopelessly lost regained their strength, the doomed were restored to health, shriveled, shrunken, helpless beings were brought back to life, men enured to long suffering and bitter anguish revelled in the relief of restored powers, while here and there and everywhere the magic of Bethesda, the certainty of its cure, and the marvel of its work was heralded as doing the work of miracles. Its discoverer was beginning to be appreciated; the taunt, the jest and the sneer fell as before some superior power, and where ridicule had been instituted admiration took its place; while encouragement to the man, praise, laudation and favor occupied all places and claimed ever attention.

What is Claimed.

The water has restored thousands from the brink of the grave; given health and strength to those deemed beyond the reach of all medical science, and turned the path of affliction to one of happiness in the blessings contained within its virtues. It cures the deadly Bright's disease; eradicates all diseases of the kidneys; restores the urinary organs to strength and power; is a certain specific in dyspepsia; and unfailing antidote to a diseased and poisoned system from any and all causes; a sure agent in all cases of debility, nervous prostration or loss of power; acts with unerring certainty in giving new life to a languid and overtaxed system—in a word it is a natural restorer of health and has performed the most wonderful and miraculous cures of any known specific on the globe.

The agents everywhere have numerous testimonials in proof of the wonderful cures effected, and the sales of the water are greatly on the increase in every State of the Union. The general agents in this city are Dunbar, Hendry & Lavery, at 107 Stockton street.—*Evening Post.*

SAFE INVESTMENT.

The Pacific Coast Twelve Per Cent. Consols.

NEW METHOD WITH ASSURED ADVANTAGES.

A rapidly growing interest is being taken in the Pacific Coast Twelve Per Cent Consols, in consequence of the many advantages offered in regard to investment, interest and dividends. So much uncertainty exists in connection with nearly all mining and other speculative companies, there is something very assuring in an incorporation which not only guarantees twelve per cent. per year to all stockholders, but provides for the honest payment of dividends. The Twelve Per Cent. Consols were incorporated on the 12th of February last, for the purpose of transacting a general business in buying and selling mining properties, city real estate, and agricultural and other lands, in the States and Territories of the Pacific Coast. Determined to do only a strictly legitimate business, the Directors rejected the old method in vogue by mining companies generally, and adopted a new one which secures to all parties who become shareholders, equal advantages in the business transacted. By the provisions of the by-laws,

A Sinking Fund

Is to be made of one-half the proceeds of the total capital stock, which shall be sold on the joint account of the original co-owners. The stock will be classified as follows: Sinking Fund, mining property, city real estate and agricultural lands. Before any stock is issued in any class, the property will be appraised by the owners, and the stated value entered upon the books of the Company. Shares for not more than fifty per cent. of the valuation will be issued in any of the classes, and the amount of shares offered for sale in any one class, exclusive of the sales of stock in the Sinking Fund, will not be allowed to exceed 50,000, if sold at less than the par value of a dollar per share.

Guarantees of Safety.

In regard to the Sinking Fund, which will constitute fifty per cent. of the par value of the stock, all moneys

received as the proceeds of sales of stock on account of the fund will be deposited with some solvent banking institution, which pays interest on deposits invested in interest bearing stocks, bonds and other securities, which can be realized on in thirty days, and in no case will it be lawful for the directors or trustees to invest any moneys of the Sinking Fund in the purchase of stocks, bonds or other securities of any incorporation whatever, which shall have failed to pay interest or dividends for a period of six months preceding any proposed investment pertaining to the Sinking Fund of the Company.

Payment of Interest.

The by-laws further make positive provision for the payment of interest monthly on all stock issued in each class at the rate of twelve per cent. per annum, payable on the 5th day of each month. Another important concession is that any shareholder has the option to take stock in payment for interest at par value in any class that may be preferred. No assessment will be levied until the total stock of the Sinking Fund shall have been sold and paid out as provided by the by-laws. Indeed, so secure is the plan of the Company that in case the whole capital stock of the Company should be sold immediately and the Sinking Fund invested as provided, the proceeds would be sufficient to pay the interest for eight years and a half on the total capital stock. Perhaps no other company in the world has ever been able to present so brilliant a certainty.

Dividends.

Stockholders will not only be sure of their twelve per cent. per annum, but will share in all the surplus profits. The dividends will be paid from the profits and sales of property, and only on shares of consols that have been issued for property valued and entered on the books of the Company. As there can be very little question that the transactions of the Company will be very extensive, and that the profits will rapidly reach something handsome, the dividend prospect should serve as a strong inducement to stock purchasers, for perhaps in no other direction can they be positive of receiving one per cent. a month for money invested, and almost a certainty of large yearly dividends in addition.

A further provision can be made at any time by the Company by setting aside the percentage agreed upon of the sales of the properties of the Company. The main object of the directors is to incorporate a more legitimate and assured method of transacting business in mining and property than has hitherto obtained on this coast. They are therefore resolved to touch nothing but bona fide investments, and to make it a rule to have nothing to do with speculative values. Every possible care will be taken to protect the interests of shareholders; and in order that they may be constantly posted in the transactions of the Company, a monthly statement of affairs will be prepared by the officers, and the books will be at all times open for inspection.

Shares for the first series issued for mining property in Washoe, Storey and Lyon counties, and on the Comstock lode in Nevada, and for account of Sinking Fund, will be ready for delivery to subscribers and purchasers to-morrow, at Greenbaum & Co's, 306 Montgomery street. The set selling rate will be one-twenty, and the buying rate one-nineteen. The principal office of the Company is at 306 Montgomery street. T. Phelps is the President, and W. S. Reynolds the Secretary.

my22owhp

IMMIGRANT BUREAU.

J. EARL, Manager.

I. G. GARDNER, Assistant.

123 California Street.

Second Floor, - - - San Francisco, Cal.

To the Immigrants Seeking Homes, Labor and Information.

There is ample room in our State for all that are arriving to find homes, and there is plenty of work for willing hands to do. By the information we expect to give through this Bureau, we anticipate no difficulty in finding homes and employment for all who may come. This office will be furnished with maps of Government and other desirable lands for sale, with full information relative to location, soil, climate, etc.

The simple object of the Bureau is to protect the interests of immigrants, giving reliable information where the new comer can find employment, and homes on lands with *perfect title*, free of charge; and since the Bureau will be in correspondence with reliable, or similar Bureaus throughout the State, it cannot fail to accomplish the object intended.

MAYOR JAMES OTIS,
I. FRIEDLANDER,
C. J. CRESSEY,
O. ADOLPHE LOW,
JOHN MORTON.

The Committee having selected the appointed Agent of the Grangers' Immigrant Committee and the late Business Agent of the State Grange as their Manager and Assistant, shows a friendly disposition and desire to unite with us in our enterprises as Grangers that we should not ignore; and as this institution is to be sustained by the people at large, we therefore appeal to Grangers, and ask their co-operation and support, and to take immediate action in selecting some person in their Grange to receive orders for help and send the same to this office, that we may fill them, also to whom we may refer those seeking homes and situations. It is desirable that we have full description of lands for sale and to rent.

J. EARL, Manager.

A GOOD BARGAIN.

\$500 will buy a good, pre-emption claim of 160 acres in Monterey County, with a good Dwelling House that cost more than that amount, situated one-half a mile from the Los Angeles Stage Road, and about the same distance from the line of the Southern Pacific Railroad. Apply to

MRS. ROWLANDSON,
On the Premises, San Antonio, Cal.

LOOK!

ALBERT E. BURBANK, Importer and Breeder of Fancy Poultry, Pigeons, Rabbits, etc. Also Eggs for hatching from the finest of imported stock. Eggs and Poultry at reduced prices. Send for Price List.

ALBERT E. BURBANK,
178-3m 43 & 41 Cal. Market S.F.



BREEDERS' DIRECTORY.

PURCHASERS OF STOCK WILL FIND IN THIS DIRECTORY THE NAMES OF SOME OF THE MOST RELIABLE BREEDERS. OUR RATES:—Six lines or less inserted in this directory at 50 cts a line per month, payable quarterly.

CATTLE.

R. ASHBURNER, Baden Station, San Mateo Co., Cal., breeder of Short horn cattle. Pure Bred Bulls for sale, from cows of choice milking strains.

J. BREWSTER, Gait Station, Sacramento Co., Cal., breeder of Short-Horn Cattle.

J. D. CARR, Galt Station, Monterey Co., Cal., breeder of Trotting Horses, Short-Horn Cattle, Thoroughbred Spanish Marino Sheep and Swine.

A. MAILLARD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.

W. L. OVERHISER, Stockton, San Joaquin Co., Cal., breeder of Short-Horn Cattle and Berkshire Swine.

PAGE BROTHERS, 304 Davis street, San Francisco, (or Cotate Ranch, near Petaluma, Sonoma Co.): Breeders of Short-Horns and their Grades.

STANTON & POWERS, Sacramento, Cal. Breeders of Jersey Heifers and Bull Calves at low rates. Address L. O. Powers, Sacramento, Cal.

MOSES WICK, Oroville, Butte Co., Cal., breeder of Short-Horn Cattle. Young bulls for sale.

SHEEP AND GOATS.

H. F. BUCKLEY, Hopeton, Cal. Thoroughbred also $\frac{1}{2}$ and $\frac{3}{4}$ Cotswold gals sheep.

MRS. ROBERT BLACOW, Centerville, near Niles Station, Alameda Co., Cal. Pure-Blooded French Merino Sheep for sale.

N. GILMORE, El Dorado, El Dorado Co., Cal., importer and breeder of Angora Goats.

LANDRUM & RODGERS, Watsonville, Santa Cruz County. Pure-Bred Angora Goats and Cotswold Sheep for sale.

SEVERANCE & PEET, Niles, Alameda Co., Cal., breeders of Thoroughbred Spanish Merino Sheep.

A. G. STONESIFER, Hill's Ferry, Stanislaus Co., Cal., breeder of Pure-Blooded French Merino Sheep.

L. U. SHIPPEE, Stockton, Cal. Importer and Breeder of Spanish Merino Sheep, Durham Cattle and Essex Swine.

POULTRY.

GEO. B. BAYLEY, Cor. 16th and Castro streets, Oakland, Cal. Imported Brahmas and other choice Fowls for sale.

ALBERT E. BURBANK, 43 and 44 California Market, San Francisco, importer and breeder of Fancy Fowls, Pigeons, Rabbits, etc.

M. EYRE, Napa. Bronze Turkeys, Emden Geese, Choice Fowls, Pigeons, Rabbits, Ferrets.

WILLIAM KNOWLES, Brooklyn, Alameda Co., Cal., has for sale Eggs for Hatching, carefully packed, from pure-bred Bronze Turkeys, at \$7.50 per dozen; Brown Leghorns at \$4.00 per dozen; Houdans, White Leghorns and Buff Orpingtons at \$4.00 per dozen; two dozen for \$5.00. Sent C. O. D. to any address.

Mrs. L. J. WATKINS, Santa Clara. Premium Fowls. White Leghorn, S. S. Hamburg, Game Bantams, and Aylesbury Ducks. Also, Eggs. 2178-St

A NEW DISCOVERY

To Save Time and Labor.

The Magical Effect of

ENGWER'S PURE BORAX SOAP

Is wonderful. Washes without much rubbing. Every one knows the value of

AMMONIA and BORAX

For Washing Purposes;

This Borax Soap is principally composed of the combination of the two ingredients, so that it entirely does away with hard labor. A trial will convince any one of its superior qualities. Warranted to give satisfaction and not to injure the finest fabric. Ask your Grocer for

Engwer's Pure Borax Soap.

IF HE DOES NOT HAVE IT, ASK HIM TO GET IT.

GRANGER SOAP.

Once Used, Always Used.

Manufactured by

FALKINBURGH & CO.,

Oregon Street, near Front, San Francisco, Cal



COOLING, REFRESHING, AND INVIGORATING ARE THE EFFECTS OF

ROWLANDS' KALYDOR

On the face and skin of all exposed to the scorching rays of the sun and heated particles of dust. It eradicates Freckles, Sunburns, Tan, and all Cutaneous Eruptions, and produces a beautiful and delicate complexion. In cases of stings of insects it is of the greatest value. Sold everywhere by all chemists, druggists, and patent medicine dealers.

Ask for Rowlands' Kalydor, of 20, Hutton Garden, London, and avoid imitations.

SAN FRANCISCO EMPLOYMENT OFFICE,

CROSETT & CO., Prop'rs,

623 and 625 Clay Street, S. F.

COUNTRY ORDERS FOR MEN almost invariably filled, and with FIRST-CLASS HELP. German, French, American and Scandinavian help, a specialty.

Farmers will secure men in any number desired, especially by giving a little timely notice. Hoteliers always get the best of MALE or FEMALE HELP. We have the BEST OF FACILITIES FOR PROCURING DE-IRABLE HELP. Send us your orders and we will endeavor to give you satisfaction in every particular at all times.

Live Stock Notices.

GABILAN HERD

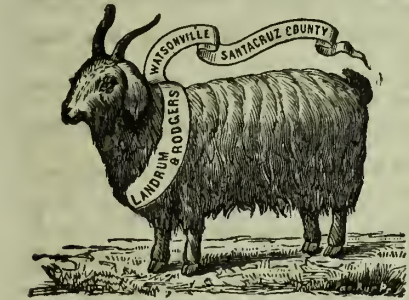
SPANISH MERINO SHEEP.

I have just purchased of Mr. George Hammond, of Vermont, three car-loads of Spanish Merino Sheep, (335 head, Ewes and Bucks) which, with others that I purchased last Fall, (also direct from Vermont) makes my band of Thoroughbred Spanish Merinos about 650 head.

I am prepared to sell both Bucks and Ewes, of Pure Blooded Spanish Merinos—as good as can be had in the world—so says Mr. Hammond. Parties interested will please give me a call. I am ten miles from Salinas City, Gabilan P. O., Monterey county.

J. D. CARR.

N. B.—I have also Good Graded Bucks for sale, and can dispose of some Good Graded Ewes. J. D. C.



We respectfully invite the attention of wool growers to our fine stock of Cotswold Sheep and Angora Goats. We have 200 head of Pure Breed Angoras to select from; we have some of the finest Goats in America; we guarantee everything we sell to be as represented; our prices are as low as any in America for the same grade of stock. Call and see, or address,

LANDRUM & RODGERS,

1377-cow-1f

Watsonville, Cal.

E. W. WOOLSEY,

BREEDER OF



Thoroughbred Spanish Merino Sheep,

From Vermont Premium Stock,

At Berkeley, Alameda County. Horse cars every half hour from Broadway Station, Oakland.

CITY OFFICE, 418 CALIFORNIA STREET, S. F.

Thoroughbred Spanish Merinos
FOR SALE.

60 one and two-year old Thoroughbred Spanish Merino Rams, California bred, from Ewes imported from Vermont, and sired by Severance & Peet's Celebrated Ram "Fremont," and by their Ram "Green Mountain," which took the first premiums at the Bay District and State Fairs. Last shearing—35½ lbs.—years' growth.

Also, about 100 Ewe and Ram Lambs, all of "Green Mountain" Stock, bred this year.

B. F. WATKINS,
Santa Clara, Cal.

FOR SALE.

400 Pure Blood French Merino Rams,

On the Oristimba Ranch, six miles west of Hill's Ferry, Stanislaus County, Cal. All Rams delivered at the railroad, free of charge. Terms easy and prices liberal.

A. G. STONESEFER.

12 Short-Horn Bulls,



fat and sleek, thoroughbred, just from Kentucky, at Saxe's Stables, 35 Ritch Street, between Folsom and Harrison, two blocks from Grand Hotel. Inquire at Saxe's Stables, or Room 22 Rmss House. 3v3-3m

SUPPORT HOME INDUSTRY.

WHEATEN STARCH,

MANUFACTURED BY

J. JOHNSTON.

SAN JOSE, - - - - - CALIFORNIA.

This starch is made from the best of wheat, and is used by the laundries and hotels, who pronounce it Superior in Strength and Fine Satin Gloss to any imported starch—one pound being equal to one and a half pounds of Eastern starch.

Geo. W. Chapin, Real Estate Agent, 434 Montgomery St., San Francisco, buys and sells Ranches in all parts of the State. City Real Estate exchanged for country Property. MONEY LOANED. Post Office Box 1120

LOOK TO YOUR INTEREST!



MANUFACTURED BY THE

PACIFIC RUBBER PAINT
COMPANY.

For many years chemists and others have experimented in mixing India Rubber with Oil, Lead, etc., in order to produce a perfectly

WATER-PROOF PAINT,

And at last successful in their effort, have formed a chemical combination of Rubber with oil paints, which when applied becomes hard and elastic enough not to crack or peel, from the action of the atmosphere, with a gloss equal to work finished with varnish. The

Pacific Rubber Paint Company,

Of San Francisco, California, together with the RUBBER PAINT COMPANY, of Cleveland, Ohio, own all the patents covering perfect combinations like the above, which is known and sold by them as "Rubber Paint."

The great demand for the Rubber Paint induced this Company to purchase of the Cleveland, Ohio, and New York Rubber Paint Company, the patents for this coat, and are now manufacturing this paint in all colors, in large quantities, and have put the price below the best lead and oil paints. The Rubber Paint is prepared in Pure White, in all Cottage and other colors, comprising any number of different shades and put up ready for use, being a great advantage, as it can be spread by any one.

It Flows From the Brush Freely, Works Easily, and Settles Promptly. It is available for all kinds of Painting,

And may be used with equal advantage on iron, stone wood, brick, or plaster.

The Rubber Paint will cover more surface, cover it better, and last much longer than Lead and Oil. Two coats of the Rubber Paint is better than three coats of Ordinary Paint.

SAN JOSE, CAL., March 20, 1875.

PACIFIC RUBBER PAINT Co., San Francisco.—Gentlemen:—I have used and sold the Rubber Paint in this city during the last four years. We have about one hundred buildings painted with the Rubber Paint. Among the prominent ones are the State Normal School, Gates Institute, City Market; the residences of Josiah Belden, J. W. Hinds, President Gold Note Bank, J. R. Arquello, Santa Clara, etc. It has never failed to give satisfaction, with a test of from one to four years, so that its durability has been well tested. My sales last year were nearly five thousand gallons.

Truly Yours, AMASA EATON.

REFERENCE:

CAPT. EDWIN MOODY, San Francisco.
AMASA EATON, San Jose.
WILLEY & RINALDO, San Jose.
WALLACE EVERSON, Oakland.
F. K. SHATTUCK, Oakland.
ISAAC KNOX, ESQ.

Office and Factory:

Pacific Rubber Paint Co.,

No. 207 Sacramento street,

SAN FRANCISCO, CAL.

mar27-sa

Averill Chemical Paint,

MANUFACTURED BY THE

Cal. Chemical Paint Co.

PURE WHITE, AND ANY SHADE OR COLOR.

This Paint is prepared in liquid form, READY FOR APPLICATION—requiring no thinner or dryer, and will not spoil by standing any length of time.

It is Cheaper, more durable, more Elastic, and produces a more Beautiful Finish than the best of any other Paint.

It will not Fade, Chalk, Crack, or Peel off, and will last twice as long as any other Paint.

In ordering White, state whether for Outside or Inside use, as we manufacture an Inside White (Flat) for inside use, which will not turn yellow, and produces a finish superior to any other White known.

Put up in ¼, ½, 1, 2 and 5 gallon packages, and in Barrels. Sold by the Gallon.

For further information send for Sample Card and Price List, or apply to the office.

OFFICE AND DEPOT: 117 Pine Street, near Front. Cor. 4th & Townsend Sts.
3v9-cow-bp-1y SAN FRANCISCO, CAL.

FARMERS' UNION.

SUCCESSION TO A. PFISTER & Co.,

Cor. Second and Santa Clara Sts., San Jose.

CAPITAL, - - - - - \$100,000.

WM. ERKSON, - - - - - PRESIDENT

H. E. HILLS, - - - - - MANAGER

Directors:—Wm. Erkson, L. F. Chipman, Horace Little, J. P. Dudley, David Campbell, James Singleton, Thomas E. Snel, C. T. Settle, E. A. Braley.

Will do a General Mercantile Business, also receive Deposits, on which such interest will be allowed as may be agreed upon, and make Loans upon approved security.

Davis & Sutton, Commission Merchants,

For California Fruits: also for the sale of Butter, Eggs, Cheese, Hops, Green and Dried Fruits, etc., 75 Warren street, New York. Refer to Anthony Halsey, Cashier, Tradersmen's National Bank, N. Y.; Ellwaeger & Barry, Rochester, N. Y.; O. W. Ried, Sacramento, Cal.; A. Lusk & Co., Pacific Fruit Market, San Francisco, Cal.

LITTON SPRINGS
SELTZER WATER,
FROM LITTON PARK,
Near Healdsburg, - - SONOMA CO., CAL.

QUANTITATIVE ANALYSIS.

One wine gallon of water contains of solid constituents 228.69 grains, in the following proportions:

Carbonic Acid (combined).....	42.96
Chlorine.....	78.38
Sulphuric Acid.....	2.36
Silicic Acid.....	2.02
Oxide of Iron.....	2.85
Lime.....	4.41
Magnesia.....	5.24
Soda.....	62.19
Alumina.....	
Ammonia.....	
Potash.....	27.38
Lithia.....	
Boric Acid.....	
Organic Matter.....	
Total grains.....	228.69

The amount of free carbonic acid in the water which escapes on standing and is not calculated in the above analysis, is equal to 383.75 grains per gallon.

Nature's Specific for the Cure of Indigestion, Costiveness, Piles, Irregularities of the Action of the Kidneys and Liver, Inflammation of the Eyes, Gout, Rheumatism, Etc.

Sold in Pint and Half-pint Bottles, and also by the Gallon.

Delivered in any part of the City, and forwarded to any part of the Country, by application to the Office.

Office and Depot, 439 Bush Street, San Francisco

E. B. SMITH & CO., Agents.

may1-lam-bp

AMMONIA!

For Washing and Cleaning Purposes.

For Sale by all Grocers.

This article is universally used in Europe, and, recently introduced for general family use in San Francisco and neighborhood, is already in great demand. It is now the intention of the manufacturers to introduce it all over the Pacific Coast, at prices which will bring it within the reach of every household.

It is unequalled for cleaning Woolen Fabrics, Cutlery, Carpets or Crockery; for Scrubbing Floors, Washing Paint, Removing Grease Spots, Shampooing or Bathing.

It renders water soft, and imparts a delightful sense of coolness after washing.

DIRECTIONS.—For Laundry, use two to four table-spoonfuls to a wash tub of water. For bathing, use one table-spoonful in the bath tub. For removing grease spots, apply with a brush, undiluted, and wash with water afterward. For stimulating the growth of plants, use a few drops in every pint of water used in watering.

PRICE.—Per Pint Bottle, 25 cents; per quart Quart Bottle, 40 cents; per Half Gallon, 75 cents.

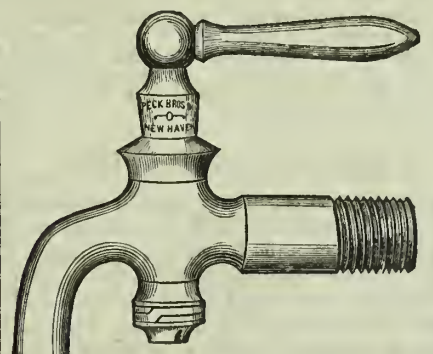
Also, SULPHATE OF AMMONIA for chemical purposes, fertilizing and the preparation of artificial manures. AMMONIACAL PREPARATION for the prevention and removal of boiler scale. CRUDE AMMONIA, for general manufacturing, and PURE LIQUOR and AQUA AMMONIA for chemical and pharmaceutical purposes.

Manufactured by the

SAN FRANCISCO GAS-LIGHT CO.

cowbp

IRON PIPE

Pipe Fittings & Brass Goods,
AT BOTTOM PRICES.

JAMES L. BARKER,

406 and 408 Market street, San Francisco,

Orders by mail will receive prompt attention
mr13-cow-bp

H. K. CUMMINGS.

1858.

H. H. RALSTON.

1875.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission House,

ESTABLISHED 1858.

No. 424 Battery street, southeast corner of Washington, San Francisco.

Our business being exclusively Commission, we have interests that will conflict with those of the producer
4v23-1y



5,500 ACRES

Of the best portion of the old NOME LACKEE RESERVATION, in Tehama County, for sale very low; only five dollars per acre; one-third down, one-third in one year and one-third in two years, with interest at one per cent. per month. Will be sold all together or in two parcels. This is one of the finest tracts of grazing land in Northern California; is abundantly watered by numerous perpetual springs and has two miles of the Elder Creek, a clear mountain stream. Its grass never fails from drought, and is of the best quality for sheep and has no clover hurt. 800 acres of level plow land; timber for posts, fuel, etc. Enquire of ALLEN WILCOX, Los Angeles, or F. B. WASHINGTON on the tract, twenty miles west of Tehama.

Banking.

Grangers' Bank of California.

(Incorporated April 27th, 1874.)

Offices, 415 California street, San Francisco.

CAPITAL authorized, \$5,000,000, in 50,000 shares of \$100 each. Subscribed, \$2,568,700. (Number of shareholders, 1,571). Paid up, \$481,200.

DIRECTORS.—J. V. WEBSTER, President; CALVIN J. CRESKEY, Vice-President; O. S. ABBOTT, J. P. CRESKEY, G. W. COLBY, J. H. HILL, J. LEWELLYN, THOS. MCCONNELL, J. C. MERRYFIELD, A. F. WALCOTT, F. J. WOODWARD.

OFFICERS.—Managing Director, CALVIN J. CRESKEY; Cashier, ALEXANDER WATSON; Secretary, FRANK A. CRESKEY.

The bank was opened on the 1st of August, 1874, for the purpose of affording additional banking facilities to the producers of the State, and for the transaction of ordinary banking business.

CURRENT ACCOUNTS are opened and conducted in the usual way, and interest allowed on the minimum monthly balance at the rate of three per cent. per annum.

CERTIFICATES OF DEPOSIT are issued in sums of \$50 and upwards, payable on 30 days' notice of withdrawal, bearing interest at rates varying with the current rate of discount.

TERM DEPOSITS are received in gold, silver or currency, and interest allowed as follows, namely: Three months, six per cent. per annum; six months, seven per cent. per annum; one year, eight per cent. per annum.

COLLECTIONS are made throughout the State on the most favorable terms.

DISCOUNTS.—The bank advances on real estate in the different counties, on merchandise and grain in warehouse, etc., with a fair margin, charging a uniform rate of one per cent. per month. Discount days, Tuesday and Friday.

ALEXANDER WATSON, Cashier.

Anglo-Californian Bank.

LIMITED.

Successors to J. Seligman & Co.

London Office.....No. 3 Angel Court
San Francisco Office.....No. 412 California street.

Authorized Capital Stock, \$6,000,000,

Subscribed, \$3,000,000. Paid in, \$1,500,000.
Remainder subject to call.

DIRECTORS IN LONDON.—Hon. Hugh McCulloch, Reuben D. Sassoon, William F. Schofield, Isaac Schimsen, Julius Singleton.

MANAGERS:

F. F. LOW and IGNATZ STEINHART,
SAN FRANCISCO.

The Bank is now prepared to open accounts, receive deposits, make collections, buy and sell exchange, and issue Letters of Credit available throughout the world, and to loan money on proper securities. 2v27-cowbp

California Farmers Mutual
Fire Insurance Association.

Office, 6 Leidesdorff St. - San Francisco.

Directors:

A. WOLF, A. W. THOMPSON, I. C. STEELE,
I. G. GARDNER, J. C. MERRYFIELD, J. D. BLANCHARD,
G. P. KELLOGG, Treas.

Finance Committee:

I. G. GARDNER, J. C. MERRYFIELD, A. W. THOMPSON

Trustees:

J. M. HAMILTON, Lake Co I. C. STEELE, San Mateo Co
J. C. MERRYFIELD, Solano Co A. B. NALLEY, Sonoma Co
G. W. COLBY, - - Butte Co O. S. ABBOTT, S'ta Barb'a Co
H. B. JOLLEY, - Merced Co A. W. THOMPSON, Sonoma Co
A. WOLF, San Joaquin Co E. W. STEELE, S L Obispo Co
J. D. BLANCHARD, Pres't. W. H. BAXTER, Sec'y.

This association is organized for the purpose of affording the farmers of this State the means of safely insuring against loss by fire, at actual cost of insurance, without being connected with city risks. a822-tf

UNIVERSITY OF CALIFORNIA,

BERKELEY, near Oakland.

COLLEGES OF AGRICULTURE,

CHEMISTRY, MECHANICS,

MINING, ENGINEERING

and LETTERS.

Examinations for Admission, August 11th and 12th, at 10 o'clock A. M.

Tuition free. Circulars sent on request.
hp-td

GREAT EASTERN AND WESTERN

Horse and Mule Market,

Cor. Fifth & Bryant Streets, San Francisco.

A choice stock of Carriage, Draft and Farm Horses on hand, and constantly being received from the East. All classes of Horses and Mules purchased and sold.

WASHBURN & RANDALL, Props

Hooper's South End Grain Warehouse,

Japan and Townsend Streets.

SAN FRANCISCO, July, 1874.

I beg to inform you I have leased this above first-class Fire-Proof Brick Warehouse, now being erected by Geo. F. Hooper, Esq., and will be ready to receive storage on the 1st of August. This warehouse offers superior inducements to parties desiring to store grain and flour, as it is situated on the Water Front, and on the line of the O. P. R. R. and S. P. R. R. It is well ventilated, rat proof, and combines all the modern advantages and improvements. Yours respectfully, JOHN JENNINGS.

Advances and insurance effected at the lowest rates. Storage taken at lowest current rates. 4v8-ft

Tricks, Funny and Otherwise.

Being aware that there is a good deal of humbug in exposing humbugs, that policemen need very close watching, and that there is an urgent necessity for reformation among professional reformers, we have, as a rule, purposely refrained from exposing ourselves to the sly insinuation: "Set a thief to catch a thief." But there are some funny episodes in the great carnival of crime which we may be allowed to dilate upon without arousing the suspicion that we are setting up as social reformers.

One of these amusing interludes recently occurred in this city, and in which we were called upon to play a sort of supernumerary part. A few weeks since the RURAL PRESS received the following circular:

"Office of H. M. Willis & Co., Newspaper Advertising Agents, Philadelphia, April, 1875. Dear Sir:—Please insert the inclosed 'A. D.' in your weekly, three months, and forward bill with marked copy paper to H. M. Willis & Co., 119 Fourth street, Philadelphia, Pa."

Here is the 'A. D.:'

"SO SO" Send 25 cts. by mail and receive instructions for writing without pen and ink. Address P. O. Box 2302, Philadelphia, Pa."

Of course we did not publish; and of course a slight curiosity was aroused to know what kind of a humbug it might be; and one member of the establishment, having his curiosity backed up by the usual free and easy feeling that "twenty-five cents won't break anybody," forwarded this sum and received in return the following instructions:

"DEAR SIR:—Use a lead pencil—Don't give it away to your friends—and don't swear about it. I will drink your good health."

Now we are well aware that those who denounce stock gambling are very irreverently divided by the community generally into two classes, namely: the sore-heads who have been bitten, and the envious ones who are mad because they did not get a bite; and it is probable that our friends may class us among the sore-headed in this case; but we beg to assure them that the above mentioned twenty-five cents did not come out of our pockets nor do we mourn the loss of the "A. D."

This is not the only funny swindle that has come beneath our observation. A few years ago the people of an interior town in Wisconsin received circulars stating that any one sending fifty cents to an establishment in the same honest quaker city, Philadelphia, would receive "a musical instrument that will play thirty-three tunes." A good many were mulched to the tune of fifty cents, for it was quite a diminutive box which they received by mail, and in the saw dust with which it was filled they found a *jeanesharp* of the lowest possible grade. As might have been expected those humiliated people hung their harps upon willows, and are to this day very bitter and bold in their denunciations of swindling.

The above are instances of the funny tricks of the swindlers. We have at hand one of a darker shade, to which our attention was called by receipt of the following circular:

New York, May 20th, 1875.
TO PUBLISHER RURAL PRESS:—Dear Sir:—I hand you herewith a contract, and if it meets your approval, you will please execute and return. Supposing you to be familiar with the character and purpose of this—one of New York's latest and greatest enterprises—I deem it unnecessary to enter into explanations. The entire management of the advertising of the company has been placed in my hands. I have already entered into extensive contracts with the press of the country, and believing that it would be for our mutual interest, would be pleased to effect an arrangement with you. If accepted, insert enclosed advertisement at once. Mail paper regularly.
B. F. BUCKLIN.
Advertisement Broker, P. O. Box 5268, New York.

The "contract" which is here submitted to our "approval" is as follows:

(No. 4.) With privilege of monthly change. . . . 187 First insertion to commence first week in June.
B. F. BUCKLIN, P. O. Box 5268, N. Y. We hereby agree to insert any unexceptionable advertisements, with or without cuts, double or single column, in the columns of our paper, to the amount of (in weekly), an average of twenty inches per week for one year, including the advertisements of the Industrial Exhibition Company, of New York, that you may order in, and mail regular copy of paper for one year, and receive in payment therefor eight (8) bonds, of the par value of twenty dollars each, of said Industrial Exhibition Company, to be paid quarterly in advance, after receipt of first insertion. If accepted, sign and return. State whether you use wood back cuts or solid.

We give herewith "the enclosed advertisement" without expecting to receive "in payment therefor eight (8) bonds, etc.," and notwithstanding we may be really serving the interests of this scheme by so doing, we give extracts containing the gist of this scheme for promoting the industries of the country.

In the first place, the "Industrial Exhibition company"—like all swindling enterprises—are sadly in want of "Local Agents." "The agency is to sell the bonds of the company. Bonds \$20 each."

"The Industrial Exhibition company is the first to adopt the plan so long in use by the European governments of issuing bonds when the principal is made secure and not risked, but where there is a chance for a large premium, an investment of \$20 is sure to return to the investor \$21—one dollar more than cost—and the holder of a \$20 bond may obtain a premium either of \$50, \$100, \$200, \$500, \$1,000, \$3,000, \$5,000, \$10,000, \$25,000 or \$100,000. The interest, which is ordinarily distributed to all the bond-holders pro rata, is in this loan distributed by chance. The purchaser of a bond knows he will receive back his investment, with a small rate of interest added, and in consideration of taking this small rate of interest, he has a chance in the above named premiums, which are simply the distribution of interest on the whole loan.

Each bond participates in four drawings each year,

until it has drawn a premium, when it is surrendered, the premium paid and the bond cancelled. Every American who understands the purpose of the company will, of a necessity, feel a pride in aiding it to a successful termination.

Each individual who buys a bond becomes an owner and an interested party, and when he views the structure erected with his money can say, 'I aided to erect in our country one of the most magnificent buildings the world has ever seen, a palace which, in truth, represents the industry, energy and mechanical genius of the American people.'

The manufacturers and the inventors of America are peculiarly interested in the success of this enterprise, for the reason that it is to be their home, where all their inventions and manufactures can be exhibited and sold.

The building will contain 5,320,000 square feet of space."

For the benefit of the public in general, and the detectives of swindling in particular, we append the following:

"Parties desiring to act as agents or to purchase bonds will address Industrial Exhibition Company, No. 12 East 17th street, between Broadway & 5th Avenue, New York City."

Here we have the milk of a very bad cocoanut, which we offer to the inspection of those officials whose duty it is to bring the violators of the lottery laws to justice. The place of business is here given, and the proper authorities "can address as above."

This matter would not have received at our hands the consideration and space here given it, had we not detected in it the presence of the new spring in the trap into which public confidence is being enticed. We allude to the prevailing trick of the higher grades of swindlers, of ensconcing themselves behind the industrial interests of the country. The old political parties are manifestly failing; houses which hordes of rats are rapidly leaving for organizations composed of the "industrial classes." Hypocrisy, somehow, does not thrive in the church as formerly; and mock patriotism receives no praise nor pence for shouting "Hail Columbia" but by identifying themselves with the industrial and educational interests of the country, these ravenous wolves can dispense with their sheep's clothing, and bogus patriots can save their breath, and allow the genius of liberty to pursue her course unharmed by them. The field, the workshop and the common school are the new pastures into which trickery has driven her greedy hordes.

Their presence here is to be greatly deplored. Industry and education are becoming the reliance of the world for permanent good; and it is just because the zeal of the human family has chosen these altars for its sacrifices, that these birds of prey are gathering about them.

There is a trick of a still more serious character which is being played at the present time upon the culpably credulous in all parts of the country. We allude to the system of selling counterfeit money. We have heard of parties in this city, who, being driven to desperate straits by losses in stock speculations, have made a desperate attempt to retrieve their fortunes by purchasing and trying to pass this spurious paper money. And we are sorry to add, some of the ladies of San Francisco have been lured into the trap.

While the community is justly condemning these swindles, it would be well, perhaps, to consider whether there is not just cause for social humiliation from the fact, that the law of demand and supply creates a market for such wares. If the appetite was not known to exist, these skillful auglers would not bait their hooks with such materials.

While the community is justly condemning these swindles, it would be well, perhaps, to consider whether there is not just cause for social humiliation from the fact, that the law of demand and supply creates a market for such wares. If the appetite was not known to exist, these skillful auglers would not bait their hooks with such materials.

Commencement Day in Berkeley.

The Commencement exercises of the University of California were held June 9th, at the Assembly room of the University, at Berkeley. The room was elegantly decorated for the occasion and was crowded with a very select audience from this city and elsewhere. The exercises, under the direction of President Le Conte, passed off very pleasantly to all, and creditably to the young gentlemen graduates.

The salutatory was pronounced in Latin by Alexander D. D'Ancona, of San Francisco, and the valedictory by Dwight B. Huntley, of Oakland. There were three orations. A philosophical oration (Lord Bacon), by Isaac T. Hinton, of San Francisco; an English oration (Arc to Explorations), by Frank B. Sutton, of San Francisco, and a classical oration (A Passage in Sophocles), by Josiah Royce, of Oakland.

The degree of Bachelor of Arts was conferred upon the following candidates: Charles F. Boardman, Chesley K. B. nestell, Joseph G. Brown, Alexander D. D'Ancona, Frank Deering, Arthur F. Low, Josiah Royce and W. Turkington. Bachelor of Philosophy—John F. Alexander, Leonidas S. Burchard, H. J. W. Dam, John O. Wyatt, Frederick V. Hollman, H. O. Lang, F. S. Sutton, John W. Rice, W. P. Gummer, Isaac T. Hinton, Dwight B. Huntley, George W. Pierce, R. H. Robertson, H. H. Webb, W. R. Windsor.

The degree of Master of Arts was conferred upon John L. Beard, of the class of '68, and George W. Reed and John M. Whitworth, of the class of '73.

The literary exercises were concluded by a very appropriate and thoughtful address by President Le Conte.

The new fruit dryer at Napa is nearly completed. The wharf for it is finished as far as it will be built now, and when the works are in operation a branch railroad track will be brought right to its doors, to facilitate shipments.

A Visit to Immigrating Colonies.

A large addition to our immigration is expected through the agency of Wm. H. Martin, agent of the California Immigrant Union, who will soon depart for the East on a business; visit to the Vermont colony in Castleton, Ver., the New Haven colony at West Haven, Conn.; the German silk colony at Paterson N. J.; the Pacific colony at Mansfield, Penn.; the Urbandale colony in Chicago, Ill. A colony in Minn., one in Tenn. and one in Mich. After Mr. Martin has visited these colonies, and completed arrangements for their transportation by special trains to California, he will return, remaining in Chicago two or three weeks. While in Chicago, his headquarters will be at the Tremont House, where letters can be directed by those who desire to obtain information about the country. During his stay at Chicago, parties who desire to come out with him on a visit or to make California their home, would do well to call early, as it will be part of his business to provide special trains for such. Mr. Martin occupies a prominent position in the great system of immigration.

HORTICULTURE.

The Lima Bean.

Our hot summers are unfavorable to many vegetables which Europeans value, but then we have much to be thankful for that is denied to them. Among these favors is the Lima bean. Europe, at least that part of it which is famous for good vegetables, is not hot enough for it. It is a very fastidious thing even here, and many fail with it in their early sowings. The earth has to be dry and warm, or the seeds rot away. It is not, however, always the fault of the earth that the seeds rot. They are often defective from having been left in the frost in the fall before gathering. If the seeds are not quite ripe before the frost arrives, they are not in a good condition of perfect healthfulness. In this condition they are more liable to injury from the damp colds of spring. Instead of saving the last refuse of the crop for seed, a few of the earlier ones should be left on. It is a great temptation, certainly, to take and eat the earliest perfecting beans, but those who succeed best in all things are those who learn to resist such temptations.

In raising beans, it is almost indispensable to have poles. Indeed, the writer has never seen them grow any other way. Some writers say that they do very well when planted as bush beans, and then keep the runners continually cut off as they grow. This will require much labor, and it will, therefore, be best to have poles, if at all possible to procure, which in the region reached by our readers it generally is. The poles have to be set in the ground, about four feet apart, as the first part of the operation of bean planting, and then the earth drawn up around the base of the pole to a small hill. This hill soon becomes warm and dry, much sooner than the surrounding flat ground, and we can then sow the beans much earlier. It is usual to put about three or four beans in a hill, the root edge downward, and only deep enough to barely cover the bean. There are few vegetables so satisfactory to grow in an American garden as the Lima bean. It is little trouble to get ready for the sowing, and when once they come into use, they continue with no trouble but the gathering and easy shelling, until frost.—Maryland Farmer.

Pomology at the Centennial.

It is the purpose of the Centennial Commission of the International Exhibition, and an especial object of interest to the Bureau of Agriculture, which has been charged with the reception of fruits for exhibition, to afford every inducement and facility for a full and complete display of the fruits of our varied climates, and also those of more northern and tropical regions.

It being questionable as to the practicability of exhibiting many perishable fruits, the products of the tropics, models in wax and plaster will be acceptable.

Such a display of pomological products as herein designated will, it is expected, cover the entire period during which the Exhibition will be open, though at all times varying in importance and extent. For instance, berries and other small fruits will be included in this department, and of these there will be certain classes as strawberries from the South, ready for exhibition on the opening day; and the variety and quantity will be presented in an increasing scale as the season advances.

It will be perceived readily that the most important display will be made during the months of September and October.

The classification and arrangement of location of fruits sent for exhibition, will be according to their species and variety; all of similar character being assembled together, that a more satisfactory conclusion may be reached as to the respective merits of like products from different soils and States; thus all grapes, from whatever source, will be placed in one position; the same with apples, pears and the entire list of cultivated and wild fruits, and nuts.

Exhibitors may be assured that the proper

arrangements will be made for the united interests of themselves and pomological science.

It is hoped that the pomological societies of the several States, and individual cultivators generally, will co-operate in an effort to place before the world creditable evidence of the resources and capacity of our country in respect to fruit culture and products.

The Exhibition will open in Philadelphia on the 10th day of May, 1876, and close the 10th day of November following.

PATENTS & INVENTIONS.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

[FROM OFFICIAL REPORTS FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.]

By Special Dispatch, Dated Washington, D. C., June 15th, 1875.

FOR WEEK ENDING JUNE 1ST, 1875.

MACHINE FOR BENDING HORSE SHOES.—Arthur Barton, Nevada, Cal.

AMALGAMATOR.—Wm. H. Carson, San Jose, Cal.

ATTACHMENT FOR COOKING STOVES.—Frank Enos, Mineral City, Nevada.

ENDLESS ROPE TRACTION RAILWAY.—A. S. Hallidie, S. F., Cal.

FLUME BATTERY.—D. F. Hawkes, Timbuctoo, Cal.

CUTTER HOLDER FOR METAL LATHES.—J. R. Mitchell, Haywood, Cal.

SLOW MATCH FOR LIGHTING FUSES.—Adam S. Wall, Graniteville, Cal.

PROCESS FOR PREPARING COCOANUT FOR DOMESTIC USE.—Alex. P. Ashbourne, Oakland, Cal.

TRADE-MARK.

FOR MATCHES.—John W. Tucker, S. F., Cal.

The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue. NOTE.—Copies of U. S. and Foreign Patents furnished by DEWEY & CO., in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with perfect security and in the shortest possible time.

Agricultural Items.

The Novato ranch, in Novato valley, half way between Petaluma and San Rafael, and about twenty-five miles from San Francisco, is offered for sale. It contains about 15,000 acres of land.

The Olympia, W. T., Farmer says: Cherries will soon be ripe; wild strawberries are ripe and seem to be plenty this year, but it is said that plums will be rather scarce.

A BUNCH of oat stocks six and one half feet long, grown this year on a ranch near Watsonville, was shown to the editor of the *Pajaronian* the other day.

PREPARATIONS are being made for putting the swamp lands to the south of Bakersfield, along the Kern Island canal, in a high state of cultivation.

JAMES FULTON sold last week to Jacob Keithly sixty-nine acres of land, half a mile from the depot, at Fulton, for \$10,000 in gold coin.

The work of planting orange orchards was never more vigorously prosecuted in Los Angeles county than at the present time.

PREPARATIONS are completed by the steamboat people for commencing the movement of the wheat crop of the Sacramento valley.

GRASSHOPPERS are said to have made their appearance, not singly but in battalions, in Marin and Sonoma counties.

The grasshoppers are doing considerable damage to crops at Eagleville, Modoc county.

WOODWARD'S GARDENS embraces an Aquarium, Museum, Art Gallery, Conservatories, Tropical Houses, Menagerie, Seal Ponds and Skating Rink.

In two years sixty thousand copies of Getz's School for the Parlor Organ have been sold; the book is recommended. Price, \$2.50.

LOCKE & MONTAGUE,

IMPORTERS OF

Stoves, Ranges,

Tin Plate, Sheet Iron, Iron Pipe,

House Furnishing Hardware,

Plain Japanned,

Planished and Stamped

TIN WARE,

112 and 114 Battery Street.

SAN FRANCISCO.

Nurserymen.

PEPPER'S NURSERIES.

(Established in 1858.) PETALUMA, OAL.

Green Houses and Tree Depot corner Wash-
ington and Liberty streets.4 Green Houses. 3,000 feet of Glass. Fruit Trees a
Specialty.We offer for sale at lowest market rates a general as-
sortment of Fruit and Shade trees, small Fruits, Vines
etc. Evergreen trees and Shrubs in great variety. Green
House, Conservatory and Bedding Plants, Roses, etc.
Eucalyptus in variety. Eucalyptus Globulus, per 1000
for forest planting, at very low rates. Catalogue and price
list furnished on application.Address, W. H. PEPPER,
1978-11 Petaluma, Sonoma Co., Cal.SUPERIOR FRUIT TREES
TRUE TO NAME.A fine collection of Evergreen and Deciduous
Trees. Australian Gum Trees in variety, by the
hundred or thousand. Monterey Cypress in quan-
tities and sizes to suit all. Orange and Lemon
Trees at reduced prices. A general variety of Nursery
stock.

Also, Rhubarb and Asparagus root.

T. CORLEY,
8729-11 315 Washington Street, S. F.

Seedsman.

CHAS. F. CRESWELL,

SEED AND PLANT MERCHANT,

Victoria, Tasmania, and New South Wales.

The Largest Collector and Exporter of the
Eucalyptus Globulus (Tasmanian
Blue Gum).O. F. O. having Branch Houses in the three Chief
Colonies, and botanical collectors throughout Australia,
can offer the best advantages to dealers in Australian
Native Seeds, Plants and Ferns.Eucalypti and Acacia Seeds in endless variety and of
the most excellent quality.His most convenient branch for exporting to Europe
and America is found by addressing toC. F. CRESWELL, Seedsman,
No. 37 Swanston Street,
Melbourne, Victoria.SEEDS. PLANTS.
OF EVERY VARIETY.Fresh and reliable, such as experience and care only
can select.GRASS AND CLOVER SEEDS, KENTUCKY BLUE
GRASS, HUNGARIAN, ORCHARD, ITALIAN RYE,
RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL,
CHOICE CALIFORNIA ALFALFA, WHITE CLOVER,
RED CLOVER, ETC.Also, RAMIE, JUTE AND TOBACCO SEEDS; to-
gether with a fine and complete collection of TREE
SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGAN-
TEA, PINUS INSIGNIS, ETC.

For Sale, wholesale or retail, by

B. F. WELLINGTON,
(Successor to E. E. Moore).
425 Washington St., San Francisco. 227-11

IRRIGATED LANDS.

Sure Crops and Large Yields—Water Com-
munication with San Francisco and
Cheap Freights.

WILL SELL

Three (3) Tracts of Land on Staten Island. The Jersey
Tract, 4,000 acres, on San Joaquin River. The Brad-
ford Tract, 2,230 acres, on San Joaquin River. Also,
offer other Tule Lands in tracts to suit purchasers.These are the most desirable grazing and farm
lands in the State. Partly cultivated, improved and
easy of access.L. C. McAFEE, Real Estate Agent,
411 1/2 California street, Room 4, S. F.

FARM HANDS.

The Grangers' Scandinavian American
Employment OfficeHas been removed from 6 Liedesdorff to 608 Clay street,
and Consolidated with the Pacific Coast Employment
Office. This office is in constant communication with
Grange Headquarters, and is the only one in the city
conducted by members of the Order. Our facilities for
furnishing MALE and FEMALE help of all kinds are
unexcelled by any office in the city. Great care taken
to select reliable help. Chinese Orders for servants,
in door and out, promptly filled.In ordering help, be particular in describing work,
wages, fare, etc., Real Estate and General Business
Agency.

PHILIPS & FLIGGLE.

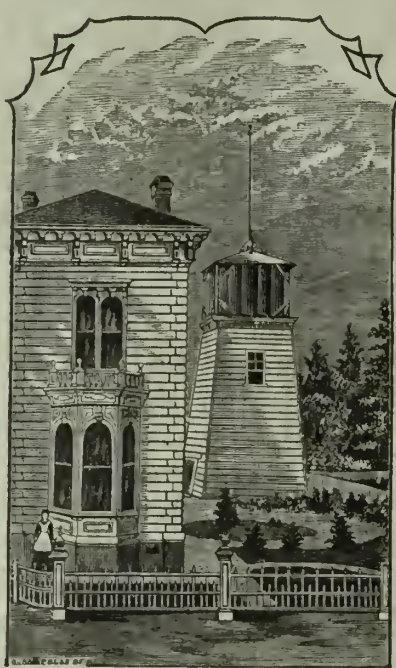
The Employment Office of Talbot & Co. has no con-
nection whatever with the Granges.

I. G. GARDNER.

FARMERS write for your paper.

Agricultural Articles.

THE TURBINE.

Simplest, Cheapest,
and Most Durable.The Inventor of the Dexter Windmill has made new
and useful improvements in Windmills, patented March
16th, 1875, and now feels confident of having the
SIMPLEST, CHEAPEST, MOST DURABLE, andONLY PERMANENT WINDMILL
IN THE WORLD.SIMPLEST, because it is less complicated; CHEAPEST,
because it never needs repair, standing on a firm founda-
tion; MOST DURABLE, because it is all under cover,
and has less rigging to get out of order; ONLY PERMA-
NENT, because the only Windmill in the world that has
never been injured by storms. Hundreds of people,
who have thought the Dexter perfect, will be glad to
observe the SUPERIORITY OF THE TURBINE over
all predecessors. Although much improved, the price
of mills remain the same as formerly. Persons who
study their own interest will investigate the TURBINE
before purchasing any other.Territory for sale outside of California, at reasonable
rates and easy terms.Mills built to order of the best material, and at the
shortest notice, by Kimball Manufacturing Company,
corner Fourth and Bryant streets, San Francisco. Any
orders sent to their address will receive prompt atten-
tion.For further information regarding Mills or Terri-
tory, send for New Circular. Address,A. H. SOUTHWICK,
P. O. Box 1385, San Francisco; or
P. O. Box 25, Oakland, Cal.

mr13-lam-bp

KIMBALL CAR, CARRIAGE

—AND—

AGRICULTURAL IMPLEMENT

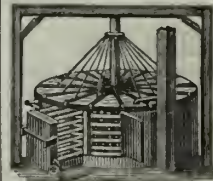
MANUFACTURING CO.,

Cor. Bryant and Fourth Sts., San Francisco

The CALIFORNIA TUBULAR IRON AND WOOD
FRAME HARROW—two, four and six-horse Iron Har-
rows, \$60, \$70 and \$75. Wood Frame Harrow, \$10 less
on each size than the Iron.The Harrow has an easy seat for the Driver. The
middle section rests on three wheels with wings hinged
on each side.By use of Levers the Driver in his seat can raise or
lower the Harrow, regulating at will the depth of the
teeth in the soil, and in the same manner fold or raise
the wings from the ground so as to drive from the road
to the field, saving the use of a wagon.Our CALIFORNIA SCRAPER is also made for the
ease of the Driver, enabling one person to ride, manage
the team and do the work.Is adapted for leveling and preparing the surface of
the soil for irrigation. And for making roads, remov-
ing dirt from ditches, cleaning barn yards, sheep corals,
etc.The IMPROVED EAGLE HAY PRESS—Best in use
on this Coast. Cheap, Economical, Powerful, and easily
repaired.Will press bales weighing from 250 to 325 pounds,
using less rope than any other press.Three men with a good team of horses will bale from
10 to 15 tons per day.Adapted for baling wool, hides, cotton, rags or moss.
Price, \$250. Weight of press, 2,500 pounds. Please
send for circulars.

Plummer's California Fruit Drier.

PATENTED DECEMBER 29TH, 1874.

This is the Cheapest
and Most Economical,
Largest Capacity, and
Most Speedy DRIER, and
gives the fruit a better
flavor than any other ma-
chine ever invented. 1st—
It only requires a shed to
work under; 2d—has
boiler, engine, and steam-
pump for irrigating or
other purposes, in con-
nection with the Drier or
separately; 3d—the cost is one-half less than any other
of the same capacity, and there is no danger of burning
the fruit. A sample machine is in full operation at
our factory, No. 31 BEALE St. Address,
SPAUDLING & BRO.,
San Francisco, Cal.

Send for Circulars.

O. CREGO.

A. C. BOWLEY.

CREGO & BOWLEY,

Importers and Manufacturers

—OF—

CARRIAGES and WAGONS,

No. 9 Merchant's Exchange,

CALIFORNIA STREET.....SAN FRANCISCO

Keep constantly on hand top and open Buggies, top
and open Rockaways, Jump-seat Buggies, Track and
Road Sulkies, Skeleton Wagons, Basket Phaetons of
the very latest styles and finest workmanship.We would call particular attention to our fine stock
of light Road and Trotting Wagons, made to order by
the following celebrated makers:
Charles S. Coffrey, Camden, New Jersey;
Heffield & Jackson, Rahway, New Jersey;
Gregg & Bow, Wilmington, Delaware;
And the first-class makers, which we are prepared to
sell on the most reasonable terms.Also, a large assortment of single and double Har-
ness, of the most celebrated makers:
O. Graham, New York; J. R. Hill, Concord; Pittkin
& Thomas, Philadelphia.Also, a full assortment of Dress and Light Blankets,
Fur and Lap Robes, Whips, Halters, Surcingles, etc., at
wholesale and retail.

CREGO & BOWLEY,

No. 9 Merchants' Exchange, California street,
2475-3m San Francisco.

MATTESON & WILLIAMSON'S

AMERICAN CHIEF



GANG PLOW.

Took the Premium over all at the great Plowing
Match in Stockton, in 1870.This Plow is thoroughly made by practical men who
have been long in the business and know what is re-
quired in the construction of Gang Plows. It is quickly
adjusted. Sufficient play is given so that the tongue will
pass over cradle knolls without changing the working
position of the shares. It is so constructed that the
wheels themselves govern the action of the Plow cor-
rectly. It has various points of superiority, and can be
relied upon as the Best and Most Desirable Gang Plow
in the world. Send for circular toMATTESON & WILLIAMSON,
Stockton, Cal.

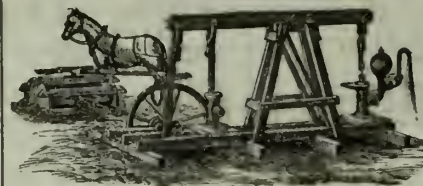
VINE AND FRUIT GROWERS,

TO RAISE LARGE CROPS

YOU MUST IRRIGATE.

To irrigate successfully, you must have the power that
does not give out when the wind fails.

Laufkotter Bros. & Churchman's Horse-Power.

[PATENTED FEBRUARY 13TH, 1872.]
Never fails to supply more water than four or five Wind-
mills, even supposing you had all the wind you want. It is
also suitable for running light machinery, such as Barley
Crackers, Corn Shellers, Fanning Mills, Grain Separators,
or, for Sawing Wood. They are never failing, cannot get
out of order, easily worked, substantial, and always give
satisfaction wherever they have been used. One horse can
easily work two 6-inch pumps, with a continuous flow of
water. Force Pumps, from 3,000 to 10,000 gallons per hour.
WINDMILLS of all kinds manufactured to order. Wells
Bored, Windmills and Horse-Powers set in any part of the
State, and repairing of all kinds done.
Manufactured and for sale by

LAUFKOTTER BROS.,

71-2m-3m Cor. J and 10th Sts., Sacramento.

THE GRANGER ENGINE.

Farmers' and Threshers' attention is called to this
splendid Engine. Especially adapted to burning straw,
wood or coal. This is the only Engine in the market
that is designed to run Derrick Forks by steam. The
saving of fuel to run the Engine, and the men and
horses dispensed with in running the Derrick Forks,
will amount to the Price of the Engine in one season.
Manufactured and sold by

J. L. HEALD, Vallejo.

Steam Power and Separator.

A large Boiler, Steam Engine, and first-class Buffalo
Pitts Separator, second-hand, in perfect running order,
is offered for sale. Young horse stock of good style and
pedigree (about 11 cwt.), also cattle and sheep, will be
taken in part consideration.

Apply to

G. COOK,
Cordelia, Solano County.

Or to JOHN WHITE, 1000 Market St., San Francisco.



Massillon Harvester

Buy the Best.

Ten men bind

binders can BITE

or STAND. Ad-

dress, EDWIN

BAYLES,

Massillon, O.

LANE & BODLEY,
John & Water Sts., Cincinnati.
Manufacturers of the Best

FARM ENGINE.

Mounted and ready for use. Send for our illus-
trated catalogue.NEW YORKER REAPERS,
One Hundred Dollars Each.
For Sale by
FARMERS' UNION, San Jose.THE ALDEN
FRUIT PRESERVING COMPANY,
OF CALIFORNIA.

OFFICE, 426 MONTGOMERY ST., S. F.

Our improved apparatus will do one-third more work
than that erected last season, while our prices have
been materially reduced. A portion of the purchase
money may be paid in the products of the Alden fac-
tories. We guarantee against infringements. The
Alden is the oldest, the best and the cheapest process
known for preserving fruits, vegetables, meats, etc.It would be unwise to purchase the new and untried
dryers before they have demonstrated their superiority
by at least one year's regular work. Send for our cir-
culars.

Rich Farm Land For Sale.

L. F. MOULTON, of Colusa,

OFFERS FOR SALE VERY CHEAP, THREE THOU-
SAND ACRES OF EXTRA GRAIN LAND, AD-
JOINING WHICH ARE NOW GROW-
ING FIELDS OF GRAIN WHICH
WILL YIELD FORTY BUSH-
ELS TO THE ACRE.This land is as good as any in the State, and will be
sold very cheap.Address the owner, at Colusa, for particu-
lars.THE CELEBRATED
H. H. H.
HORSE MEDICINE

IS STILL AHEAD OF ALL OTHERS.

The Wholesale Druggists of San Francisco, give
evidence of its appreciation throughout the State, by
and rapidly increasing orders. We pledge it a cure for
SPAVINS, WIND GALLS,
SWEENEY, SCRATCHES,
LAME AND STIFF JOINTS,
CALLONS, LUMPS,
AND ALL BLEMISHES,
SPRAINS OR BRUISES.It is a household blessing and no family should be
without a bottle in the house. For sale everywhere.WILLIAMS & MOORE, Prop's.,
2578-6m Stockton, Cal

CHARLES CLAYTON & CO.,

Commission Merchants

—IN—

GRAIN,
FLOUR
and WOOL,
N. E. COR. FRONT & CLAY STREETS,
SAN FRANCISCO.

CARD.

EXCELSIOR FORCE PUMP
greatly improved. COPPER LINED
BRASS VALVES AND VALVE SEATS
every way equal to a BRASS
PUMP. PRICES reduced. Send
for Circular. BRITTON, HOL-
BROOK & CO., Agents.

Farmers and Threshers

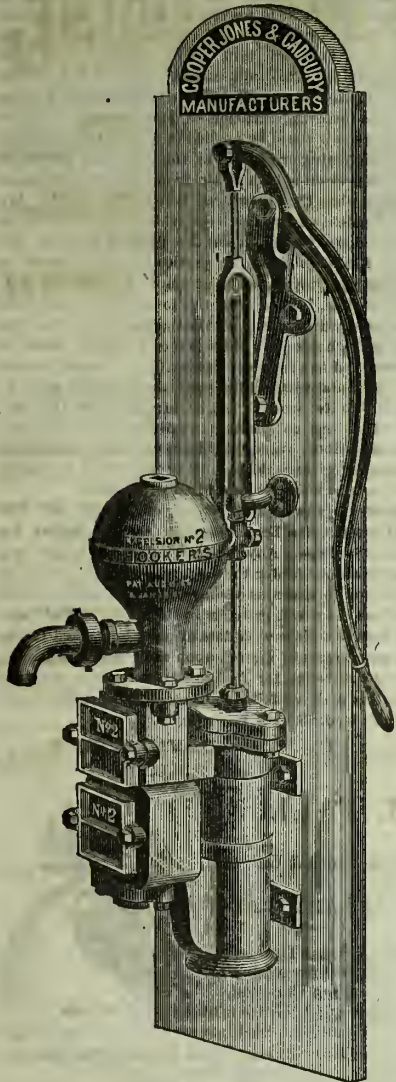
WISHING TO HAVE

Straw Burning Engines

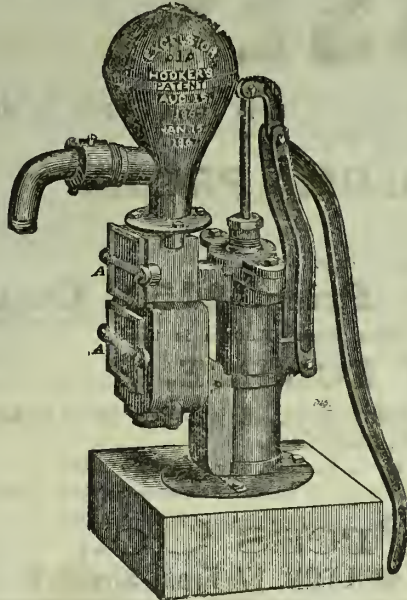
For next season must engage them soon, as most of
those now building are already sold. Three Engi-
nes for Repairs should be sent in now. A number of
Second-hand Engines—taken in exchange for "Straw
Burners"—for sale cheap. For particulars and prices,
address:
H. W. RICE,
2378-3m Haywood, Alameda County.\$25 a day guaranteed using our Well
Auger & Drills. \$100 a month
paid to good Agents. Auger book
free. J. H. Anger Co., St. Louis, Mo.BACK VOLUMES of this paper can be had for \$3 each,
including 26 numbers.

THE "EXCELSIOR" FARMERS' PUMP.

After Eight Years' use, proving itself the Best Pump on this Coast, and consequently the CHEAPEST.



MOUNTED.



BASE.

We can advise all parties to buy the Pump to be worked by hand, windmill or horse power. All sizes for sale.

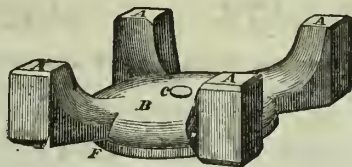
REMEMBER,

Every Pump is tested to 125 lbs. hydraulic pressure per square inch.

Will pump water 250 feet high.

So simple every farmer can keep it in order.

EVERY PUMP WARRANTED.



VALVE.

BRITTAN, HOLBROOK & CO.,

111 & 113 California St., S. F., (and also Sacramento,) Gen. Ag'ts

Send for circular.
mar27-2am

THE CALIFORNIA

STANDARD BURLAP SACK COMPANY

OF SAN FRANCISCO,

Now offer for sale their GRAIN BAGS, 22x36 and 20x36, sewed by Machinery with the best of Flax Twine, warranted not to rip in filling, the stitch being the same as the Dundee hand-sewed Sack. The sewing has been examined by good judges, and pronounced superior to any other.

SAMPLES SENT ON APPLICATION AT THE

Factory, No. 36 Clay Street.

A. J. GOVE, Superintendent.

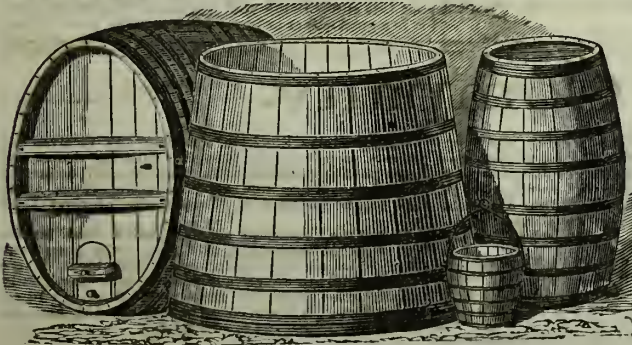
For Sale in Quantities to Suit by

I. FRIEDLANDER,

Cor. California and Battery Sts.,

SAN FRANCISCO, CAL.

CALIFORNIA WINE COOPERAGE AND MILL CO.



30, 32 & 34 Spear St.
M. FULDA & SONS
Proprietors.

Manufacturers of
WATER TANKS, SHIP
TANKS, MINING
WORK,

WINE, BEER AND LIQUOR
CASKS, TANKS, ETC.

Cooperage and Tanks, Steamed
and Dried Before or After
Manufacture at Reason-
able Rates.

Sawing, Planing, etc.
at Short Notice. eowhp

J. M. NEVILLE.

G. H. BRYANT.

NEVILLE & CO'S FACTORY

113 Clay and 114 Commercial Sts.,
SAN FRANCISCO.

BAGS of All Kinds,

TENTS, All Sizes and Descriptions.

HOSE for Hydraulic Use.

CANVAS, All Numbers.

TWINE for Sewing, Etc.

LAND PLASTER.

(Sulphate of Lime.)

This fertilizer is especially well adapted to California lands and climate, and is destined to be used to immense advantage.

PRICES GREATLY REDUCED.

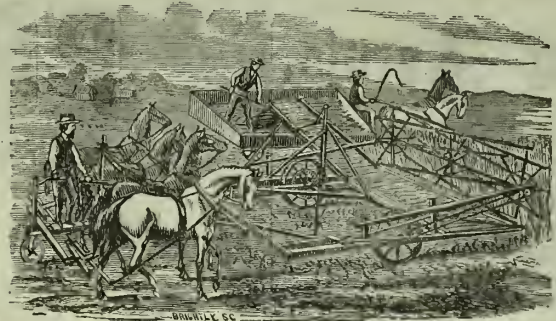
In bulk, \$10 per ton; in barrels or bags, \$12.50.

Golden Gate Plaster Mills.

LUCAS GESNER & CO.,

215 and 217 MAIN STREET, SAN FRANCISCO.

OUR IMPROVED HAINES' HEADER,



With Compound Leverage,

Doing away with all Ballast or Weights,

Either on the Lever or Frame; will be appreciated by Header Men. Also, a new device for driving the Knife, making the Header run one horse lighter than any header ever imported. The driving of the Reel is an improvement; in turning, the Reel runs just as fast as when driving straight ahead. The improvements will be found to meet the demands of California trade.

Our Excelsior Mowers are Improved for 1875.

Three Sizes—"Junior," "Medium" and "Senior."

J. I. CASE & CO'S

SEPARATORS AND STEAM ENGINES

Are the Largest Works of the Kind in the World.

The Threshers and Engines are Made Expressly for this Trade.

Pitts' Down and Mounted Powers, "Foust's" Hay Loader, and Keller & Co's Sulky Revolving Hay Rake,

An age in advance of any other Rake. See these goods before buying; they can be found with us only. Our Stock of Implements is Complete.

Haines' Header Sickles, Excelsior Mowing Knives, Buckeye Mowing Knives, (Nos. 1 and 2), Sections, Rivets, Etc.

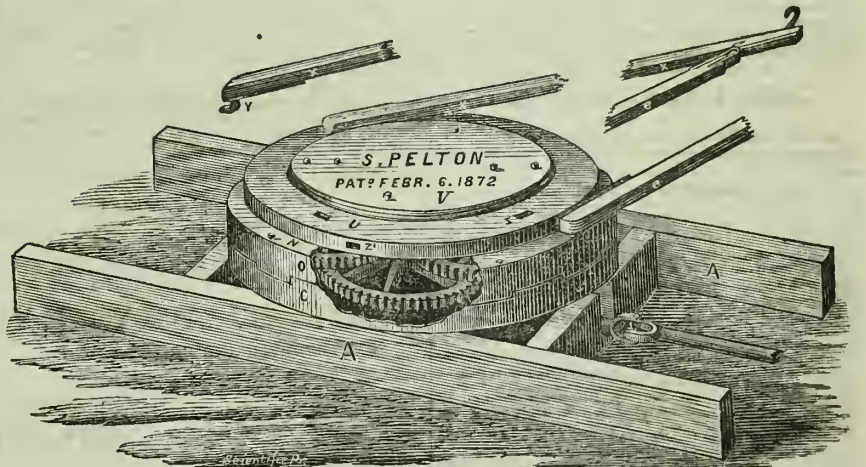
THRESHERS, ENGINES, POWERS, HEADERS, REAPERS, MOWERS, RAKES, HAY PRESSES, CORN PLANTERS, CORN CULTIVATORS, CORN SHELLERS, CIDER AND WINE MILLS, HAY CUTTERS, DERRICK FORKS, BELTING, PUSH CARTS, FLOWS, HARROWS, CULTIVATORS, GORHAM SEEDERS AND CULTIVATORS COMBINED, FISH BROS., PACIFIC WAGONS, REGULATOR WINDMILLS AND PUMPS, ETC.

KELLER CO.,

43, 45 & 47 J Street, Sacramento, Cal.

SEND FOR CIRCULAR.

Pelton's Six-Fold Horse Power.



Having made new arrangements with Mr. McKenzie, I am prepared to supply my powers to all persons favoring me with their orders. All powers hereafter manufactured can only be obtained of me or my agents. In future they will be made under my directions and specifications, and nothing but a prime quality of Machinery Iron will be used in their manufacture. I have greatly improved the application and bearing—my Levers—which will give them ample strength. All powers fully warranted. For further information, Send for Circulars and Price List to

S. PELTON, Patentee.

San Jose, Cal.

14v9-1am

J. Y. WILSON. WM. FAULL. W. L. MERRY

WILSON, MERRY & CO.,

Provision Packers

And Dealers in

SALTED AND SMOKED MEATS,

Lard, Etc.

PROP'S BLACK POINT PACKING HOUSE.

We respectfully call the attention of Farmers and Stock Raisers to the fact that we are always prepared to purchase hogs, cattle and sheep at full market prices, for Cash, and shall be glad to answer promptly any inquiries addressed to us on the condition of the Market.

Office No. 223 Sacramento St., Near Fr-nt, San Francisco.

FOR SALE

In the Riverside, New England and Santa Ana Colonies, in the valley of the Santa Ana river, San Bernardino county, California, twenty thousand (20,000) acres of clean, rich, level, valley land, with an abundance of water for irrigation. There is no better land in the State for the orange and all other semi-tropical fruits, and no finer climate in the world. Inquire of W. T. SAYWARD, 420 Montgomery street, San Francisco; S. C. EVANS, Fort Wayne, Indiana; C. I. HUTCHINSON, 314 California street, San Francisco; L. UPSON, General Agent, Riverside, San Bernardino county, Cal.

Union Box Factory,

GEO. W. SWAN & CO.,

115 and 116 Spear St., bet. Mission & Howard
SAN FRANCISCO.

Apple, Pear, Plum, Peach, Cherry, Grape, Orange, Lime and Wine Cases.

Tomato, Potato, Fig and Raisin Boxes.

Strawberry, Raspberry and Blackberry Chests and Drawers, and Baskets for all kinds of Berries.

Peach and Picking Baskets, Butter Chests and Boxes, Cheese Boxes, Square and Round Egg Carriers. Drums for Figs, Cherries, Raisins, and for other Dried Fruits.

Free Packages—Boxes not to be returned—a good article, costing less than Sawed Boxes.

Lard Caddies, Coffee and Fruit Caddies.

Turkey and Chicken Coops, Bee-Hives, Etc. Packing Boxes for Dry-Goods, Cigars, Candies, Canned Fruits, Honey, Macaroni, Crackers, Sugar, Soap, Boots, Etc.

In fact, every style of Boxes manufactured in the Union, and turned out in the Best Style at Favorable Prices. Orders from the country well attended to

ALEX. BUSWELL,

BOOK BINDER, PAPER RULER

AND BLANK BOOK MANUFACTURER.

521 Clay Street, S. F.

Blank Books Ruled, Printed and Bound to Order

DEWEY & CO.,
American and Foreign
Patent Agents,
No. 224 Sansome St.
SAN FRANCISCO.

Patents Obtained Promptly.
Caveats Filed Expeditiously.
Patent Reissues Taken Out.
Patents Secured in Foreign Lands.
Assignments Made and Recorded in Legal Form.
Copies of Patents and Assignments Procured.
Examinations of Patents made here and a
Washington.
Examinations made of Assignments Recorded
in Washington.
Examinations Ordered and Reported by TELE-
GRAPH.
Interferences Prosecuted.
Opinions Rendered regarding the Validity of
Patents and Assignments.
Rejected Cases taken up and Patents Obtained
Every Legitimate Branch of Patent Agency Busi-
ness promptly and thoroughly conducted.
SEND FOR CIRCULAR.

RURAL EXCHANGES.—If any of our readers desire to
subscribe for an agricultural paper published elsewhere
than in the South, the best place to send their money
is not New York, or Philadelphia, or Boston, but San
Francisco. This should not be understood as underv-
aluing the many deserving publications which come
from the former places, some of which may be read
with profit anywhere, but as our estimate of the com-
parative adaptation of the Eastern and the Pacific Coast
journals to our climate, crops and circumstances. In
this respect the advantage is so clearly on the side of
the latter that we would sooner pay the \$4 a year
charged for the PACIFIC RURAL PRESS (weekly) for in-
stance, than to obtain any three Eastern agricultural
journals, were that possible, for the same money. The
PRESS is most ably conducted, and is one of the best
papers on our exchange list. Published by Dewey &
Co., San Francisco, at \$4 a year.—*Rural Carolinian*
Charleston.

SUBSCRIBERS are requested to examine the printed
address on their papers. If mistakes occur at any time,
please report them to this office. The last figures (at
the extreme right) represent the year that your sub-
scription is paid to. Next to these the day and month
is represented. For instance, your subscription being
paid to July 4th, 1876, it would be represented, viz:
Jul 4 76; or 4/76; or Jul 4, 76.

Coming Fairs and Exhibitions.

[The following list will be published monthly hereafter
Officers of industrial societies will please inform us of
their approaching fairs and exhibitions.]
Twenty-second annual fair of the California State Agri-
cultural Society, to commence on the 15th and end on the
25th of September, 1875, at Sacramento.
The Centennial International Exhibition, at Fairmount
Park, Philadelphia, will open on the 10th of April, 1876,
and close on the 10th of October following.
International Exhibition of Chile, Santiago, will open
nominally August 15, 1875, continuing until April 2, 1876.
Officially from September 16, 1875, to January 1, 1876.
Articles for exhibition may be entered at any time from the
15th of August to the 15th of September and remain
on exhibition if the exhibitor so desires until the 2d of
April following.
Tenth Industrial Exhibition of the Mechanical Institute
of San Francisco, commencing Tuesday, August 17, 1875,
to continue open at least one month.
American Pomological Society, Fifteenth session, at
Chicago, Wednesday, September 8, 1875, continuing for
three days.
The Alabama State Grange Fair, at Selma, Alabama,
Tuesday October 26, 1875, continuing five days.
Fifteenth Annual Fair of the Oregon State Agricultural
Society, at Salem, commencing Monday, October 12th,
1875, and continuing six days.
The sixteenth annual exhibition of the Santa Clara Valley
Agricultural Society will commence Oct. 4th, 1875, at
San Jose, and continue for six days.
The second annual Fair of the Nevada State Agricultural
Mining and Mechanical Society will commence on the 4th
and end on the 9th of October, 1875.
THE WAHUKO Territory fair, commencing on Mon-
day, October 18th, and closing on Saturday, the 23d.
The ninth annual exhibition of the Nebraska State Agri-
cultural Society, at Omaha, commences Tuesday, Sep-
tember 21st, and closing Friday, the 25th.
Montana's Territorial Fair begins at Helena, Montana,
Sept. 27, 1875, and continues six days. The premium list
is liberal, amounting to \$75,000. Special premiums are also
given, amounting to over \$2,000.
Sonoma and Marin Agricultural Society Fair, commencing
October 4th and continuing six days.

HAY and WOOL PRESSES.

The Fastest, Strongest, and Best Portable Hay Press in the
World is the

PRICE, or PETALUMA PRESS.

400 in Use.

Bales from 12 to 20 tons per day.

Price, \$450, Cash.

The Most Simple, Compact and Effective Cheap Press Known is the

IMPROVED ECLIPSE,

Eight feet six inches high. Weighs 2,000 pounds. Bales from 10 to 18 tons
per day. Price, \$300, Cash.

The above machines are delivered at the Factory, San Leandro, Cal.

For further information or for illustrated circulars that answer all questions relating to the above Presses

Address **Price Press Co.,**
Office with BAKER & HAMILTON, 17 Front Street, S. F.

1874. GUIDE AND CATALOGUE 1875.

FREE.

To persons contemplating purchasing I will send
my ILLUSTRATED, DESCRIPTIVE CATALOGUE and GUIDE
to the VEGETABLE and FLOWER GARDEN WITHOUT
CHARGE. It contains the most extensive and valuable
list of



Flowering Bulbs, Roots and Plants, Semi-
Tropical Trees, Ornamental Shrubs, Fruit
and Shade Trees, etc., ever offered in this market.
It tells how to successfully grow the Australian
Blue Gum, the Monterey Cypress, Pine,
etc., and the proper method of Cultivating To-
bacco on this Coast.

My stock of seeds is in part my own raising
and in part direct importations from the best Euro-
pean and Eastern growers, and is unsurpassed in all
respects by that offered by any other establishment.
100,000 Australian Blue Gums and Mon-
terey Cypress in boxes at from \$30 to \$50 per
1,000, raised at my own Nursery at San Rafael.

R. J. TRUMBULL,

Grower, Importer, Wholesale and Retail Dealer in
Seeds, Shrubs, Trees, etc.

2078-6m-16p 427 Sansoms street, S. F.

GEO. B. BAYLEY,

IMPORTER AND BREEDER OF

Jersey Cattle,

Choice Poultry, Etc.

OAKLAND

Poultry Yards,

Cor. 16th & Castro Streets, Oakland.

Send stamp for circular, containing a full description of
all the best known and most profitable fowls in the country.

G. B. BAYLEY,

P. O. Box 659, San Francisco.

N. B.—A car-load of Jersey Cattle to arrive in June.

Dewey & Co. { 224 } Patent Agt's.

NEW CROP OF

BLUE GUM SEED.

GRASS AND CLOVER SEEDS.

FLOWER AND VEGETABLE SEEDS.

TREE AND FRUIT SEEDS.

OF EVERY DESIRABLE VARIETY AND OF THE
BEST QUALITY; OFFERED AT WHOLE-
SALE OR RETAIL, BY

GEO. F. SILVESTER,

SEEDSMAN,

No. 317 Washington Street,

478-1f SAN FRANCISCO

SANBORN & BYRNES,



Mechanics' Mills, Mission Street.

Ret. First and Fremont, San Francisco. Orders from
the country promptly attended to. All kinds of Stair
Material furnished to order. Wood and Ivory Turn-
ers, Billiard Balls and Ten Pins, Fancy Novels and
Balusters. 2578-8m-hp

More than double the number of Farmers and
their families read the PACIFIC RURAL
PRESS than any other journal on this
Coast.

STRAW BURNERS.

To the Public:—

I am the original inventor of a tube attachment to
the furnaces of engines for the purpose of feeding
straw to the furnace for fuel. My first patent was
issued to me by the United States Patent Office, on the
11th day of February, 1873. Subsequently, on the 20th
of May, 1873, I obtained a second patent for improve-
ments in said tubes. The first patent covered a tube
having a revolving partition or door outside of it, so
that the straw could be pushed in under the partition,
and the opening or passage in the tube kept closed, in
order to prevent a draft of air from entering through
the tube when the straw was being introduced. My
second patent covers a tube provided with a valve or
hinged door, which closes the passage through the
tube. Finding that certain parties had commenced to
infringe upon my rights by attempts to evade my pat-
ented claims, I have recently, to wit, May 4th, 1875,
reissued my first patent, and being the first person who
ever used a horizontal tube through which straw or
fuel was fed to a furnace, was enabled to cover broadly
any horizontal tube or its equivalent which may be
attached to the doors of boiler furnaces for the pur-
pose of feeding fuel through, no difference whether the
tube has a door, valve, partition or other device for
closing the passage through it, or whether it is simply
an open tube which is kept filled with straw.

Messrs Treadwell & Co., corner of Market and Fremont
streets, San Francisco, Cal., are my agents for
the Pacific Coast. Any person who desires to attach a
horizontal tube feeder to the furnace of a boiler or
boilers, or is desirous of making and using them, can
purchase the privilege to do so from my agents, and
will receive a plate with date of patents marked on it,
and which must be riveted upon each tube in use. All
tube attachments for feeding furnaces not provided
with this plate will be considered as infringements,
and will be dealt with accordingly.

DAVID MOREY,

Watsonville, Santa Cruz County, Cal.

M. FALLON,

Cor. Seventh & Oak sts.,

OAKLAND, CAL.

Light & Dark Brahmas,
Buff, White and Par-
tridge Cochins,
Spangled, Golden and Silver Hamburgs,
Pure White-faced Black Spanish,
White and Brown Leghorns,
Silver Grey Dorkings,
Houdans, Silkies, Black-Red Games,
Bronze Turkeys, Rouen and Aylesbury Ducks.

All from Premium Stock of Best Strains.

Fowls of above varieties for sale; also, Chickens in their
season. Eggs packed with care and sent in rotation as
orders are received. 179-16p-1f

Bronze Turkeys

12 Gobblers from 8
to 20 months old,
22 to 40 lbs each,
for sale now.
Hens 14 to
18 lbs.



Emden Geese

40 to 50 pounds
per pair at ma-
turity.

**BLACK
CAYUGA DUCKS,**

**Games, Brahmas, Leghorns, Houdans, Ban-
tams, etc.**

Eggs, fresh, pure, true to name; well-
packed so as to hatch after arrival.

For Illustrated Circular and Price-List, address

M. EYRE, Napa, Cal.

FERRETS.

RABBITS.

PIGEONS.

Please state where you saw this advertisement.

CALIFORNIA PORTRAYED.

The columns of the PACIFIC RURAL PRESS from Jan-
uary 1, 1870, contain the most complete and reliable in-
formation concerning the soil, climate, products and
capabilities of the different sections of California, of
any publication yet made. Neither new comers or old
settlers in the rural districts can well afford to do with-
out this enterprising and leading agricultural weekly.
It is a good helper at home and a welcome guest abroad.

Calistoga Real Estate Company.

Calistoga, with a population of about 800 persons,
is a village watering place at the head of the valley of
Napa, in California. It is four hours' travel north of
San Francisco by steamboat and rail.

Its shipping port is Vallejo, on the bay of San
Francisco, forty miles distant by rail. It lies at the
head of the most charming valley in the State.

THE BEAUTIES OF NAPA.

In traversing this thirty-seven miles of fertile dale,
the eye never wearies. If one ascends the sides of the
leafy mountains that bound the valley on either side,
whether looking up the valley or down, and from
whatever point of view, the scene is one of ravishing
beauty.

Mounting the summit of St. Helena, which towers
over all, far to the east the snowy Nevada's bound the
view; and to the west spreads the Pacific ocean, with
its winged ships and its blue horizon. To the north
are the vast forests of Mendocino, its stately trees,
turned to shrubbery and Clear Lake in its pride of
expanse dwindled to a mill dam.

THE WARM SPRINGS.

From the beauties of Calistoga we turn to its other at-
tractions. The estate covers 2,000 acres of fertile
land. Its warm springs are crowded with invalids,
who flock to its healing waters, and who return cured
of their rheumatism, their dyspepsia, their torpid
livers and their tender kidneys. The medicinal ele-
ments of the hot springs are principally iron, magne-
sia and sulphur. In this climate, the season of water
ing places is prolonged.

THE SURROUNDINGS.

By consulting a map it will be apparent that Calis-

toga is destined to become a commercial town of im-
portance. It is the center to which converge innum-
erable highways leading to many of the richest cul-
tivated valleys of California.

INDUSTRIAL ENTERPRISES.

A new industry is now being introduced at the head
of the valley of Napa, which will give easy employ-
ment to all the boys and girls, and contingently it will
support other new industries. It is but the beginning
of many others. Three miles below Calistoga is select-
ed as the site of a large factory for saving and canning
fruits and vegetables that now go to waste, and encour-
aging the production of more. In no part of Califor-
nia can these healthful elements of human food be cul-
tivated more cheaply or more abundantly. Consider-
ing the depth of its rich soil, its prolonged season, and
the extraordinary vegetable growth in this country, one
acre may be considered equal to three wherever this in-
dustry is carried on in the Atlantic States. If irriga-
tion be wanted, artesian waterflow may surely be found
all along the valley, for it is backed by mountain
ranges full of living waters.

MINES:

GOLD AND SILVER AND QUICKSILVER.

Calistoga is the center also of a great mountain range
rich in mines of cinabar and silver. Already its fur-
naces are producing mercury, and the product is in-
creasing yearly. A number of valuable mines are now
being profitably developed in the region around the
base of Mt. St. Helena, at Pine Flat, on the Great Gey-
ser road, and near Sillies' Mill, on the Clear Lake road.
All of these are from ten to fifteen miles beyond Calis-

toga, to which point their products come, and from
which their supplies are carried. The deposits of cin-
nabar occur in well defined veins, and as they are now
being scientifically developed they bid fair to rival in
productiveness the celebrated mines of New Almaden.

CALISTOGA REAL ESTATE CO.

First grand auction sale will be held on the tract on
Wednesday, August 4th, 1875, at 12 o'clock M. Those
holders purchasing at the sale will be credited with
the amount paid on their stock, and still share in the
profits of the company.

The splendid property above described, containing
2,082 acres, divided into town lots, suburban lots,
country seats, hotel property and farm tracts, has been
bought by the above named company, and is now
offered for sale to the public.

The Capital Stock of the Company is

\$1,000,000,

Divided into 20,000 Shares of \$50 Each.

The sale of a certain number of shares has been
authorized by the Board at the rate of

Twenty-five Cents on the Dollar, Making
12.50 Per Share.

By an arrangement between the former owner and
the present company, no portion of this land or the
proceeds of its sale, is consumed by expenses or in even
the smallest degree diverted from the use and benefit
of the stockholder.

Whoever buys Stock in the Company receives his
pro rata share of this property, with its Crops and
Rents in the meantime, without one cent of deduction
for expenses of any kind, even including Taxes. And
this, too, no matter how valuable the property shall
become.

Unlike the homestead schemes which have hereto-
fore attracted our people, this plan gives homes and
interests in and adjoining a town already built; where
trade and growth are already assured, and where daily
increase gives promise of greatly added values to all
its property. It is a division of this ripened heritage
that is now offered to the subscribers.

TRUSTEES:

E. W. BURE,
President Savings and Loan Society.

C. HARTSON,
President Bank of Napa.

J. B. FRISBIE,
President Vallejo Commercial Bank.

JULIUS WETZLAR,
Pres. Capital Savings Bank, Sacramento

COLONEL J. P. JACKSON,
San Francisco.

WILLIAM H. MARTIN,

GENERAL AGENT,

No. 1 Webb Street, cor. California, S. F.

PACIFIC RURAL PRESS

Volume IX.]

SAN FRANCISCO, SATURDAY, JUNE 26, 1875.

[Number 26.]

Colorado Scenery.

We have been able to give the readers of the *RURAL* several illustrations of the magnificent natural scenery to be met with in Colorado, as made known to us by views obtained by Prof. Hayden, in his exploration of that section. Those heretofore published have been so warmly commended by our readers, that we this week present another, which we think not less beautiful than those preceding it. Whiterock peak is thus described:

At the head of Teocalli creek is a high mountain peak which we named Whiterock, from the fact that a seam of white or light gray igneous rock, sixty feet wide, passes through the middle of the summit vertically. The material is quite soft, disintegrating into moderately coarse sand. The rocks composing the mountain are quite varied in texture, though all evidently of igneous origin. The jointage is in many cases vertical, separating the mass into blocks varying from a few inches to two or three feet on edge. This vertical jointage gives a sort of columnar appearance to the sides of the peak in the distance. The sides are also deeply furrowed. There are three sets of master-joints, with a multitude of smaller ones. The consequence is that the sides of the mountain and the several amphitheatres are covered with immense quantities of debris. The whole mass is filled with water and ice during the winter, and in the spring, as the ice and snow melt, it moves down the declivities slowly, like a glacier. Sometimes cavities or reservoirs are made, and the melted snows form beautiful little lakes.

From the summit of Whiterock Mountain the view on every side is most remarkable, presenting the aspect of chaos, as if the entire group of stratified rocks, which originally covered the area now occupied by the Elk mountains, had rested on a vast pasty mass of the granite, but which, by forces generated in this pasty mass, had been lifted up and tossed, as it were, in every direction. The faults are very numerous and of huge dimensions. Sometimes a group of strata is broken off, so that one portion is from 100 to 2,000 feet above the other portion. Sometimes 1,000 to 2,000 feet will be elevated by a force acting very nearly vertically, so that some of the loftiest peaks, as Maroon Peak, 14,000; Black Pyramid, 13,000, and many others nearly as high, are composed entirely of stratified rocks inclining at small angles. Again, the beds are tipped off from the granite core at all angles from 10° to a vertical, and not unfrequently past a vertical, and there are in the Elk range the most wonderful instances of the complete overturning of immense groups of beds, so that for several miles there is a double series, from the Silurian up to the Cretaceous, inclusive, and then rising upward in inverse order, as is shown at the head of East river and near Snow Mass peak.

The new steamer *Mt. Eden*, built in Stockton and intended to run between this city and Mt. Eden, Alameda county, made a trial trip last Friday. Her machinery worked in the most satisfactory manner.

Australian Lemons.

A good deal of interest has been manifested of late in lemon culture in California, and our fruit growers are already exhibiting their characteristic determination to grow the best varieties. A subscriber writes from Riverside, San Bernardino county, as follows:

"Could you inform me through the columns of the *RURAL PRESS* if the Australian lemon has been tried in this State, and with what success? Also if the rotten fruit could be obtained in San Francisco, and where and at what price?"

We do not hear of any Australian lemons.

place for it. Such soil may possibly prevail in certain localities where the climate and protection are all right, and in such cases it would pay well to thoroughly underdrain it, as this will not only dispose of the surplus water, but will also loosen up the soil. The latter point will be of as much importance as the former, as this fruit requires an open soil; and in situations where the soil is rather stiff and heavy, it would pay to underdrain it, even though it is not troubled with standing water, for a network of drains would make the soil loose and open, and at the same time set in more active circulation the stagnant gases which exert an important influence in giving character to the productions of the soil; and we would take this opportunity to impress upon the minds of

The Tuolumne Re-union.

The eighth annual re-union picnic of the citizens of Tuolumne county took place on Thursday last, at Badger's park, Brooklyn. The interest of the occasion and the pleasantness of the day called out a very large company. The park was as crowded as it well could be, consistent with the comfort of those present. The day was most pleasantly and profitably passed in rambling about the spacious and elegant grounds, in recounting old-time recollections, in dancing, and in enjoying some speaking and vocal music appropriate to the day—the centennial anniversary of the battle of Bunker Hill. The musical and literary exercises were conducted upon a raised platform adjacent to a beautiful grove, which served to shelter the multitude from the heat of the sun.

A well conceived poem suitable for the occasion was recited by Rev. O. P. Fitzgerald, of Santa Rosa. The orator selected for the occasion, Hon. Oliver Walcott, being unavoidably absent on account of sickness in his family, Dr. Wm. P. Gibbons volunteered a short extemporaneous address, which was appropriate and well received. An appropriate and attractive feature of the occasion was a model representation of Bunker Hill monument, about fifty feet high, which was placed in the grove in front of the speaker's stand.

At the conclusion of the literary exercises, the following gentlemen were chosen to serve as officers for the ensuing year: President, Hon. Stephen Wing of San Francisco; Vice-President, H. M. Rosokraus of San Francisco; Secretary, William G. Dinsmore of Oakland;

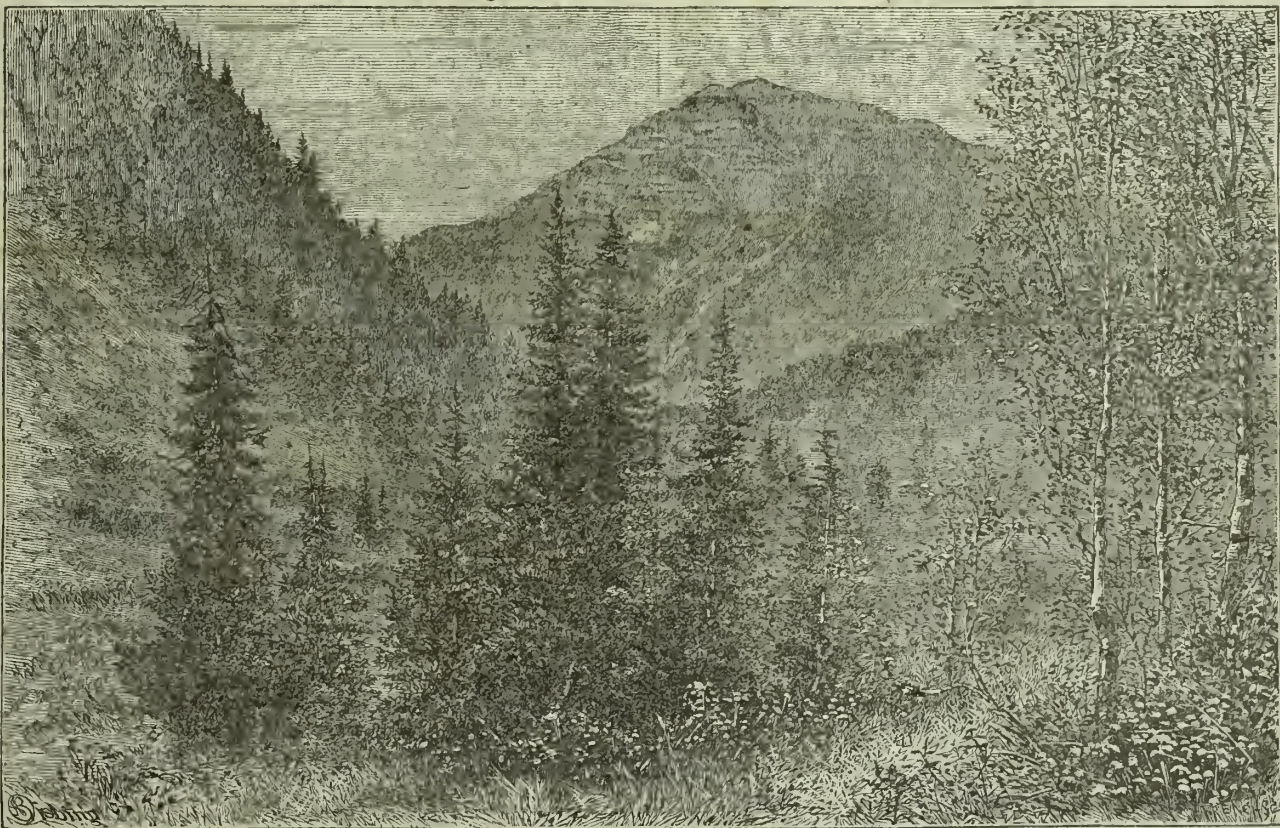
Treasurer, Z. H. Cunningham, of this city. The Executive Committee is composed of C. B. Rutherford, Oakland; L. P. McCarty, San Francisco, and J. L. Homer, San Francisco.

For the purpose of putting on permanent record the names and doings of the organization, a "great register" is kept—an elegantly bound and ponderous volume—which now contains a list of about 2,000 names of those who have formerly recognized Tuolumne as their home, and whose remembrances still go back to her old hills and gulches, with fond recollection of the rough and toilsome days of their early California life.

At the conclusion of the exercises, the members and invited guests sat down to an excellent collation, at which was provided an abundance of good things from the larder, but which, much to the credit of the managers, was not marred by the presence of anything which would serve to detract from the real enjoyment of the occasion by stealing away the wits of the company, or otherwise interfering with the harmony and good feeling which pervaded all who were present.

We wish, just here, to put on record what, to us, was one of the most notable and enjoyable features of the day, that we never, during a residence here of twenty-five years, witnessed a more quiet and well ordered picnic than that which constituted the eighth re-union of the sons and daughters of old Tuolumne.

GRADING has been recommended on the Eureka and Palisade railroad.



WHITEROCK PEAK.

having been grown in this State, as yet; there is, however, an active demand for the seed, which are difficult to procure. The fruit is generally in good condition when it arrives here from Australia, and dealers are not disposed to carry a large stock of them, prices being too high to admit of it. They sell readily at sixty dollars per thousand wholesale. Seedsmen inform us that rotten lemons of this variety are scarce; and that they are under the necessity of exercising extreme caution in such purchases, the liberal prices offered being a temptation on the part of the fruit dealer to shove off other varieties. Parties wishing to obtain this article would do well to order of some reliable seedsmen, and take their turn as he can procure supplies. We have heard of a number of importations of lemon trees from Australia.

It is generally believed that the Australian and the Sicily lemons are identical; and that the superior quality of the former is owing to the influence of the climatic advantages of Australia. It is not, therefore, enough for us to know that we can grow lemons in California; a question of equal importance arises: can we attain excellence in growing this fruit? It is believed that we can; and that the Sicily lemon, if the proper locations are selected and it receives judicious treatment, will improve here as it has in Australia.

Everybody knows that the lemon is sour; but it is not so generally known that it does not like sour land. It must have a fair amount of moisture, but soil in which water stands is no

horticulturists the importance of giving due consideration to this principle, for it is just such heavy soils, now under partial condemnation, that offer a field for agricultural improvement in the highest sense of the term.

In striving for perfection in lemon culture it will be found that protection from winds is essential. Exposure to wind thickens and hardens the skin; or rather, nature supplies this extra protection to the vital parts of the fruit, and as it is well known that such a skin greatly detracts from the merits of the lemon, the grower should protect his lemon grove with wind-breaks. When he plants his trees—or even before—let him set pines, cottonwoods or other heavy foliaged trees, with an occasional eucalyptus, and he will secure fineness of skin for his fruit. The standing water being drained from the soil, and the spot well protected against wind, a good basis is formed for lemon culture, that is, if the climate is favorable; then by starting with the best varieties, keeping the soil open while the young trees are growing and while the old ones are in bearing, and we shall expect to see a high grade of lemons produced in California, and this is an article with which the market is never over-stocked.

A PHILADELPHIA paper manufacturer intends putting up a mill on the line of the Los Angeles and Independence railroad for the purpose of manufacturing the fiber of the cactus into paper pulp. The experiment has already been tried, and an excellent quality of paper is the result.

CORRESPONDENCE.

[The RURAL PRESS, in opening the columns of this department to its correspondents, does not desire to lay before its readers anything which is not in keeping with its character and position as an agricultural and family paper. Facts are always thankfully received; and suggestions and matters of opinion on subjects connected with agriculture are also acceptable; though correspondents are to be understood as speaking for themselves and not for the PRESS.]

Mountain and Foothill Fruit Lands in Santa Clara Valley.

MESSESS. EDITORS:—There is a large body of land in the western portion of this valley, possessing qualities of soil and climate so peculiarly favorable for the cultivation of fruits and nuts, that it has within the last few years attracted much attention in this portion of the State; and if more generally known, could hardly fail to attract the attention of immigrants and others, wishing for localities desirable for fruit growing, mixed farming, and for permanent homes.

Two of the most valuable characteristics of this region are its general freedom from damaging frosts and the wonderful adaptability of the soil to retain moisture during the driest seasons. The present is certainly a most favorable season, while the whole country is suffering more or less from the effects of drouth and severe frosts, to take note of such localities as have been least affected by these two great drawbacks, not only to fruit growing, but to farming generally. No person of ordinary observation can drive through this foothill country at the present time, without observing that all the orchards and vineyards, under the right kind of cultivation, are looking healthy and growing well—giving not the slightest signs of drouth, and showing but little damaging effects from frost—in many places none at all. And they will further observe a fair and uniform stand of wheat—not a rank or heavy growth, for it never grows that way here—but a clean, low, well headed and plump-grained crop of wheat wherever it has been sown in good time, over all this gravelly land, as far as I have observed. It is getting to be pretty well understood, that by frequent cultivation moisture can be retained in this land to near the surface, during the driest seasons.

As to the bounds, or extent of this warm belt region, so favored, I have no definite information. In what follows, I wish to give some notes of what I saw and learned recently at different points, within a radius of a few miles of Los Gatos and Lexington, in the western part of this county.

At D. M. Harwood's Lone Hill vineyard, nine miles southwest from San Jose, the frost did no harm; his young orchard is bearing a fair crop of fruit, and his vineyard never looked so well, nor the slightest indication of frost or drouth does the dark green luxuriant growth of the vines give. Mr. Harwood's tract of land consists of 220 acres of gravelly land, all, except his "lone hill," on a smooth plane, slightly inclining to the east. His vineyard is the largest in the valley.

Containing 155 Acres,

All in full bearing, except fifteen acres, which was planted last winter. Of over forty varieties under cultivation, all are doing well except some German sorts. We drove all over the vineyard, and found everything looking tip top—the ground under through cultivation, the stand good, and the vines uniform in size—bearing an immense crop. Mr. Harwood is fully up to the times in summer cultivation, running his cultivators as long as the vines will permit, without breaking them, he is confident that with only two inches of a winter rainfall, he can on this land raise a crop of grapes. We found an abundance of moisture at every place near the surface of the ground. I was surprised to see the growth some grafts were making—they had been set just eight weeks, on root stocks nine years old, and had thrown out numerous branches over three feet in length, and were full of grapes. On some of the stocks, where two scions had been set, Mr. Harwood estimated there would be ten pounds of grapes this year. They were white Muscat of Alexandria.

At the Spring Rock ranch, near Los Gatos, I had the pleasure of meeting Mr. W. F. Bye, one of the proprietors of the large almond orchard that has been so much admired by passers-by on the road. I understand that Mr. Bye, in company with J. H. Neff and M. S. Gardner, have purchased this valuable ranch, for the purpose of raising nuts, fruits and fine stock. The ranch consists of 245 acres of land admirably located, and watered by four fine springs—the origin of its pretty name. The Almond orchard consists of

20,000 Trees,

Covering 100 acres of level gravelly land, and are making a splendid growth this summer. Mr. Bye, too, well understands the secret of getting a fine growth this dry summer, by frequent plowing to keep up the moisture near the surface of the ground. The trees were all planted winter before last; and, although Mr. Bye thought they had been set very carelessly, they have not lost 200 out of the 20,000 trees. The whole orchard presents a beautiful appearance, the trees planted in straight rows, of uniform size, making a good growth, and the land well cultivated and clean. They are all of the Languedoc variety. The grain on this

ranch was good; they were cutting some wheat for hay, estimated to make three tons to the acre.

On my way from Mr. Harwood's to the Spring Rock farm, I passed Mr. Miles Hill's walnut ranch, on which there is a plantation of seventy-two acres of English walnuts and Languedoc almonds. The walnuts are planted forty feet apart each way, and the spaces filled up with almonds, so that the trees stand twenty feet apart each way. In the field a man was cultivating, and the trees looked well.

There is another orchard of 3,000 almond trees on the road from San Jose to Stephens creek—this is also on gravelly land. There are also fine almond orchards near Los Gatos on the north, all doing well, that are planted on gravelly lands and thoroughly cultivated.

I saw on Mr. J. W. Eastin's place, seven miles west of San Jose, about two acres in cotton; the plants were about six inches high, looking healthy and of good color. This is the only experiment in cotton growing I have known in the valley.

In the town of Los Gatos, which is about the centre of this warm belt or foothill country I have been noticing, Mr. W. H. Rodgers showed me in his beautiful grounds, overlooking the street from the north, quite a number of orange and lemon trees growing, and looking well; the lemons especially, were making a very large summer growth, and were full of bloom, though only five years old. They are all doing so well in the open grounds that Mr. Rodgers intends planting many more. He has a large number growing in his nursery for this purpose. He has also

A Fine Banana,

Growing in his open grounds. Last winter he had a little house built over to protect it from cold while young and tender, but had it removed just before the severe frost, about the first of April, so it was exposed to the hardest frost of the whole season, without any serious damage. I have no doubt but in a few years these grounds will be enriched and beautified by groves of bearing orange and lemon trees—if not of bananas, also.

Now let us leave the valley and the pretty little town of Los Gatos, nestled away among the oak trees, and half surrounded by mountains, for the Santa Cruz toll road—one of the best kept mountain roads I know of—smooth, easy grade, all sprinkled down every day. Soon after we leave the toll house, for several miles, the road is carved out along the high steep bank of the canon, on the north side, through which the Los Gatos creek, in its zigzag course, finds its way down and out of the mountains—presenting many picturesque, rugged mountain views, while the creek murmurs and frets over the rocks far down below us; we pass several parties of picnickers on the way to the coast, and meet many six and eight horse teams, drawing two wagons each, with big loads of lumber and wood—some having from seven to eight cords of straight split wood to the team—circling round the spurs of the mountains on the narrow road many feet above the creek. But we look sharp for the meeting places, and get on all right. We pass Lexington, Forest House, and Patchen, and gain the summit just after passing through a magnificent grove of old redwoods that cluster round a little lagoon near the house of Mr. J. M. Southwick; in this neighborhood are several good vineyards, but I can only notice a few of them.

Mr. James Taylor, on the summit, seven miles southwest from Los Gatos, has a good mountain ranch of 100 acres, a vineyard of nine acres, and a good young orchard. The frost done no harm here, his orchard is bearing a fair crop. He has a few Languedoc almond trees in his orchard, making a remarkably fine growth, and bearing a fair crop for young trees. The soil here has but little gravel, is rich, and by frequent cultivation retains moisture during the driest seasons. In a small field of corn which was just coming up, we found the soil quite moist within an inch of the surface; and Mr. Taylor says it remains so all summer when occasionally

Dislurbed by the Cultivator.

Fruit never fails and no frost to do damage. He said the little field in corn had never failed of making a crop in the last sixteen years.

Mr. H. C. Morrell's place of 200 acres is also on the summit, south of Mr. Taylor's. He has a very fine vineyard of thirty acres, on high rolling land, and all looking first-class. His orchard will cover about ten acres—his older trees bearing a good average crop. Peaches and plums so full as to need thinning out, cherry trees bending with fine fruit. No traces of frost or drouth could I see in orchard or vineyard.

Mr. L. J. Burrell's place joins Mr. Morrell's on the south and east, and most of his orchard and vineyard lies east of the summit. Mr. Burrell is perhaps the pioneer fruit grower of the neighborhood, having lived here twenty-three years, and has a large tract of mountain land—two or three thousand acres, perhaps, comprising such as rich rolling lands, redwood groves, chapparal thickets, and steep rugged hills. The large vineyard and orchard all in good shape, bearing immense crops. The frost did not even touch the apricots, they were breaking full, as were the peach trees, when not thinned out; and the cherry trees were bending low with nice ripe cherries; that they were good to eat, I can testify in the most positive terms, without qualification or mental reservation—from my own personal experience. Mr. Burrell has several young orange trees in his orchard which promise well. Corn, beets, squashes, pears, and many other kind of vegetables, can

be raised here every year without irrigation, and what has been done here can be done in hundreds of other places as well.

The objection to living in the mountains, on account of distance from market and rough country, is more than overbalanced by cheap lands, fine climate, pure air, good water, plenty of wood, game, etc. G. W. M.

San Jose, June 15th.

The Storm at Grangeville—Grasshopper Parasite.

MESSESS. EDITORS:—As you appear to have no regular correspondent in this burg, I will send you a few items:

The farmers are busy, harvesting and threshing will commence in a few days. The wheat and barley in this vicinity grown on land not irrigated, is worth but little more than enough to pay for harvesting, while on the irrigated land the crops are hard to beat, except a few pieces of early barley which were damaged by the late frosts this spring.

The amount of grain produced here this year will be greater than last, but as many immigrants are settling here who will need seed and food for the coming year, we will not export as much grain as usual.

There will be raised here a large crop of corn and beans; fully enough of the former to supply home demands, and of the latter we will have some to spare.

Judging from appearances, the clerk of the weather for this district has been on a spree for the last week, for it has been clear and cloudy, with the wind in every point of the compass every day, and Saturday, the 12th, at 9 o'clock P. M., it commenced to rain and continued about six hours, wetting the ground four inches. It will prove an immense damage to the growing grain by lodging it so that it cannot be harvested without much more trouble and expense, and has most probably caused some of the late grain to be attacked with the rust. It also destroyed most of the dry feed, which is an irreparable loss to the sheep and cattle owners.

I see in the Bulletin of June 10th, that a fly is destroying the grasshoppers in Kansas by laying its eggs on the back of the grasshopper, and the eggs hatching produce a larva, which enters the body of the grasshopper and soon destroys it. I remember seeing in the years 1855-6 the same thing in Stanislaus county. You will perhaps remember that from 1853 to 1856 there was a grasshopper plague in the foothills of California, that destroyed a good portion of the crop along the edge of the valley. In the summer of 1855, I first saw the eggs of the fly on the butt end of the wings of the grasshoppers. They were of a bright color; some were of a deep orange color, while others were of a pink and scarlet color. I also saw many grasshoppers, both dead and alive, with the larva in them. The grasshopper dies when the larva is about the size of the common house fly, i. e., three-eighths of an inch long, by one-eighth in diameter.

ONE OF THE PATRONS.

Grangeville, June 15th, 1875.

Azusa, Los Angeles County.

MESSESS. EDITORS:—As I saw in a late number of the PRESS a glowing account of the flourishing settlement of Daarte, at the eastern end of the San Gabriel orange and fruit belt, and as I have never seen any account of our little settlement, some seven miles farther east, in a cosy nook between, as you may say, the Coast range and the grand old Sierra Nevada, where the green old oaks along the foothills are a relief to the eye, and where the lime, orange and citron blooms lend fragrance to the gentle sea breeze. Whether in the San Gabriel fruit belt or not, here we are, a thriving settlement of about ninety families, in a prosperous condition with fair prospects for good crops. We have one good school and another will open in a short time, also two Granges and two stores. For churches, the schoolhouses answer; but alas! we have no preacher of our own, but we borrow one from over the river, and have preaching every Sunday. As for hotels, the people here understand that it would be a financial suicide to start one. And every stranger capitalist who comes here with an eye to such business goes away satisfied that the general hospitality of the farmers would starve a hotel keeper to death. We have a postoffice here also, semi-weekly mail, and through it we get your very valuable and welcome paper. P. I. S.

AMOUNT OF RAIN IN FRESNO COUNTY.—Saturday, June 12th, was a very cloudy day. From four to ten P. M. a heavy northwest wind prevailed, which shattered mature wheat considerably. Between ten and eleven P. M. a steady rain commenced falling, and continued till after midnight. Amount of rain near Borden as measured by the standard rain gauge of the Smithsonian Institute, 0.48 of an inch. As measured by a Tennent's gauge, two miles from the location of the Smithsonian gauge, the amount was 0.56. As a general rule, Mr. Tennent's gauge is found to measure a little higher than the Smithsonian standard. We had a full half inch, and it wet the ground from two to five inches deep, according to its nature. J. W. A. W.

Notes from Sacramento County.

MESSESS. EDITORS:—Our weather is changeful. One day a heavy norther, then a cool south breeze, followed by a scorching, and ending with a rainy one. Sunday, the 13th, it rained, coming down gently and fine all day. Nine years ago a similar one came, destroying the crops and pasture; last year one came in May. At the present time many are having their hay baled; unprotected barley lay cut in the field; others had thrashed out and piled in sacks, not anticipating rain in the month of June. No doubt in time all will have to house their grain and hay when harvested.

Fruit Crop.

Since the injury that the fruit received by the frost a more careful survey has been made, and those who thought all their fruit was destroyed find their loss is not so bad as they anticipated. Of the small fruit strawberries have yielded a half crop; blackberries, now ripe for market, will be in abundance and command a low figure; no doubt the cans will have their share. A fair crop of apples; peaches suffered most; plums light. Grapes will yield as heavy as usual; early varieties half yield; black varieties, as Hamburg, light. The Muscat or raisin grape will yield as heavy as usual, and command a fair price. No doubt a larger quantity will be sold in market and fewer dried than last year. All the fruit can be consumed within our own State.

Insect pests so far have not troubled us yet as they have the lower valleys, but we are on the look out, hoping they will "pass us by." Those who have fruit and gardens should encourage the increase of birds instead of destroying them. I allow no one to shoot them around the premises. What they destroy I make up by having less bugs and worms. It is music to hear them twitter in various notes at early dawn by the window side, and a pleasure to watch them passing from limb to limb; they are to me companions while passing through the duties of the day. In the spring comes the lark, the blue-bird, red linnet, martin and swallow, followed by the oriole, robin and king bird. The dove, too, is heard uttering its moaning sound during the afternoon and eve.

The mountain quail can be domesticated and become pet of the household. I have a pair which I first kept caged a few months, then let free. They kept near the house and daily watched for the crumbs and grain thrown to them. They now have a brood of ten—beautiful to look on, perfect little pets—but they are shy, keeping their distance. The old ones have left them to take care of themselves, and I have no doubt that in a short time there will be another "increase in the family."

But, before leaving the subject the burr owl should have attention paid him, found standing his ground in front of his hole, on the edge of the mound. Many other birds interview us during the season and then pass to their winter quarters. S. R.

Sacramento county, June 14th, 1875.

The Storm at Rio Vista.

MESSESS. EDITORS:—As such wintry weather as probably the whole State has experienced within the past few days is so uncommon for the month of June in California, it may be desirable to compare reports from different parts of the State.

We had some very damp weather during the first part of our hay cutting season, but nothing to equal the new character of the climate of California. The first indications of inclemency were a very keen west wind and dark heavy clouds, hiding from us the splendor of the setting sun, on Saturday evening, the twelfth of this month.

The only hindrance in heading grain was the unusual wind; but, though some large drops of rain fell, there were no presumptions in favor of a shower. It rained a slow drizzling rain nearly all day Sunday, the sun shining only in the afternoon. This rain alone was said by some to be sufficient to cause the grain and grass to sprout.

The rain of Sunday was very refreshing and would have been gladly welcomed, had it not necessarily caused a delay in heading the vast fields of ripe grain. Some few who were very energetic ventured to head and stack some on Monday afternoon. Tuesday morning workmen were in the field very early—and it being very cloudy and damp, had it not been rushing times it would certainly have been a breach of policy to put grain into the stack before the sun came out. There was a warm stillness pervading the atmosphere which is generally attendant upon rainy weather. At about ten o'clock a southeast wind and a shower forced a suspension of work. It continued to rain harder until we had a very brisk east wind and a steady shower, worthy of a Christmas eve.

Wednesday morning it rained pretty hard, and all forenoon expediency forced everybody to seek shelter. In the afternoon it cleared up and the sun came out beautiful and warm. The roads are very nearly as muddy as they are in the winter. All work in the harvest fields will be deferred till next week. The ground is wet down from three to four inches.

This may seem very nice as a summer rain, but its results are seen in the inevitable feeling of disappointment which reveals itself in the countenances of our best natured farmers. AMPHION.

Rio Vista, June 17th, 1875.

English Oak for Spokes vs. Hickory.

A great deal of the mistrust which is often to be found in the minds of workmen, respecting the information to be derived from books and papers, upon their own trades, is not without some foundation. If this mistrust be traced to its source, it will be found that the writers in question are oftentimes not acquainted with the practical parts of their subjects as practiced in the workshop; and therefore errors creep in, as almost every day's reading unfortunately proves. These, when observed by workmen as being directly opposed to experience gained by years of practice, are the first things laid hold of, and produce an unfavorable impression regarding all kinds of book learning, very difficult to eradicate. The subject of timber is one that has often been handled by scientific writers, and many extraordinary statements have been made respecting the various properties of the different kinds, which statements are entirely at variance with the teachings of every-day life. Numerous instances might be given, but my present intention is to give facts respecting British timber, gathered from practical observation, rather than a collection of errors.

Out of the many different species of wood used in British carriage building, the oak and ash are usually taken as the representatives, and, together with a slight spice of elm, form the principal woods used for the more important parts of carriage frame work. In England, no tree is held in such esteem as the oak, and there is none more deserving, for in whatever light oak may be considered, it appears to advantage.

In carriage building, the parts to which English oak is most adapted are the spokes, and no country has as yet produced a material to equal it in this respect. Hickory may excel in some respects, but for general good qualities nothing equals the oak. The way the oak is converted into timber at present is not such as to produce the most valuable wood, but to secure the most profit to the owner. If the tree were to be cut down in winter, as it ought to be, the bark would adhere so firmly as to become almost part of the wood itself, but when the value of the bark is about a third or more of the timber, it makes it worth while to sacrifice some of the value of the timber to secure the bark.

A cross-section of an oak tree shows, in addition to the growth, two distinct kinds of wood. Nearest the center the wood has a red aspect, and is known as "heart of oak;" the outer part is called the sap, and as the tree is cut down in spring, when the sap is up or running, the heart and sap are as widely different in their natures as if they belonged to two distinct species.

With the exception of oak and larch, scarcely any trees are here cut down in spring or summer for timber purposes, as these two trees are the principle if not the only ones whose bark is made use of. The bark of oak is of sufficient value to make it worth while peeling all parts, from the trunk down to almost the smallest sticks, and the wood or plantation where bark-peeling is going on is a scene of lively animation, from the number of young persons of both sexes employed.

The best method of preparing the oak wood for spokes is a subject whereof many various opinions are expressed by old experienced "spoke-haggers."

Some recommend that the timber ought to be buried in dry soil for a short time, while others hold that it ought to be soaked in fresh water; but the object in view is simply to get rid of the natural juices as expeditiously as possible, without injury to the wood in the shape of cracks or shakes. The simplest, and perhaps best way, is to cross-cut the tree into the required spoke lengths, and afterwards split up the pieces by wedges into sizes, which, after rough dressing and the shrinkage of drying, are large enough for ordinary spokes. The line of cleavage is very important, and to secure the best spokes it must not be taken at random, but must be through the medullary rays, or those easily discerned growths, which, in oak particularly, are found radiating from the pith like the spokes of a wheel. While the spokes are still green, they are roughly dressed up with an ax, and are ready for storing by to dry. The above is not so economical a method as sawing out the spokes, but it is without doubt the best; for with the medullary rays running from back to front of spokes, the fiber is considered to be in the best position for strength. Sawed spokes have not this advantage; and, moreover, they have a bad name, through wood being often cut into spokes that is quite unfit, through crossness, for that purpose.—*Carriage Maker.*

THE EFFECT OF EMOTION.—It is related by Sprengel in his "Geschichte der Arzneikunde," that the Arabian physicians sometimes relied with great success on moral means, of which the following is a striking instance: One of Haroun Al-Raschid's wives suffered from paralysis of both arms. Deschirail, the court physician, induced the caliph to summon all the leading nobles to a large hall in his palace, and then introduced the lady to the assembled multitude. Without a word of preface he raised her veil, when feelings of shame and fear restored strength to the palsied arms. The lady hastily drew her veil down again, and was cured from that hour.

The leaves of the encalyptus (blue gum) tree are found to be an excellent article for deodorizing water closets and vaults.

Black Walnut Finishing.

The fashionable finish for black walnut work, particularly chamber sets, is what is known to the trade as the "dead oil finish." It is admired, perhaps, because it has a gloss, rather than a shine of the varnish stamp. There is no more labor required upon it than upon a bright finish, but the process of manipulation is different, and harder upon the fingers.

It should be premised that the walnut work of the day bears upon its surface, to a greater or less extent, raised panels covered with French burl veneer. And upon this fact depends the beauty of the production to a very great extent. And the effort is, to so finish the article that there shall be a contrast between the panel and the ground work on which it is placed. In other words, the former should be of a light color, while the latter is of a darker shade. In that view the palest shellac should be used on the panels and darker pieces, liver colored, etc., on the body of the work. The darker grades of shellac are the cheaper and will answer for the bulk of the work, but the clearest only for the panels.

In commencing to finish a job direct from the cabinet maker's hand, rough, and innocent of any knowledge of sandpaper, the panels should first be covered with a coat of shellac to prevent the oil in the filling from coloring them dark. Next, cover the body of the work with a wood filling composed of whiting and plaster of paris, mixed up with japan, benzine and raw linseed oil, or the lubricating oil made from petroleum; the whole colored with umber, to which, in rare cases, if a reddish shade is wanted, venetian red is also added. This filling is then rubbed off with cloths, and by this process tends to close up the grain of the wood and produce an even surface. More or less time should be allowed after each of the several steps in the finishing process for the work to dry and harden, though much less is required in working with shellac than with varnishes composed of turpentine, oil and gums. But the time allowed is often hurried by the desire to get the work through as soon as possible, so that no standard can be set up as to the number of hours required between each of the several processes. It would be well if twelve hours intervened, but if the work must be hurried through in three days, which ten could well be devoted to, obviously, the processes must follow each other in a corresponding haste.

A coating of shellac is then given the whole work, light on the panels and dark on the body work, and when it has dried and hardened, which it does very soon, it may be rubbed down. This process of "rubbing down" should be done evenly and carefully, so as not to rub through the shellac at any point, and is done with the finer grades of sandpaper for the cheaper class of work, particularly at first, but at a later period of the process, and for the better class of articles in all cases, hair cloth should be used; the material for the "rubbing down" should be pumice stone moistened with raw linseed oil for the best work, and the lubricating oil, before mentioned, for cheaper work or the covered parts of the better grades. This rubbing down involves labor, wear of fingers and finger nails, and is carried on with an ordinary bit of hair cloth, the smooth surface next the wood, and not made in any particular shape, such as a wad, or ball, or otherwise. In the corners and crevices where the hair cloth will not enter it will be necessary to sandpaper; the finest grades, and worn pieces only.

Three coats of shellac are put on, followed each time by this "rubbing down" process, each one giving the work a smoother feeling and a more perfect appearance. Afterward, to complete the whole, a coating of japan, thinned with benzine, is applied, which gives a clean appearance to the work, and the dead glossy finish.

There is this objection to the above style of finish, that the japan catches all the dust which touches it and holds it permanently, so that many of the best workmen will not have work finished in this way for their own private houses, preferring the brighter look made by shellac and varnish without rubbing down the last coat, and saying that the work can be kept much cleaner.

The large oval panels of desks, etc., covered with French veneer, are generally taken out and finished by themselves. The process is similar to that above given, successive coats of shellac, and varnish also, with the oil and pumice stone "rubbing down"; but the final part of this latter process is a "rubbing down" with rotten stone; then a very trifle of sweet oil is applied all over the surface and wiped off.—*Cabinet Maker.*

THE EFFECT OF BUTTER ON THE BLOOD.—Does it drive the impurity of the blood to the outside, or does it make the blood more impure and, by reason of excess, cause impurities to come to the surface? Ans.—The harm is not due to any injurious ingredient in the butter. It is to be ascribed to the large amounts of butter and fatty matters eaten at the same time.

NEW BARREL MACHINE.—It is said that Mr. J. W. Jones, of Wheeling, W. Va., has invented a crozier that cuts, grades the thickness, squares the ends, chippers and grooves a stave at one stroke. One machine is capable of turning out in a day eight hundred "stands" of staves, or kegs, the labor required for feeding being that of a boy only. It is automatic, in fact, and is a self-feeder to a great extent.

Alligator Leather.

Twenty years ago the secret of tanning the alligator hide was revealed to a partner of a Boston boot and shoe house by an old Canadian. The business of collecting and tanning the skins was at once commenced, and now from 17,000 to 20,000 are tanned yearly, which are consumed by boot and shoe manufacturers in every portion of the United States, as well as exported to London and Hamburg. In the foreign trade, however, the French are formidable rivals, owing to their superior methods of tanning, in which, as a nation, they beat the world.

The alligators formerly came almost entirely from Louisiana, and New Orleans was the great center of the business. Owing to their indiscriminate and injudicious slaughter, however, the animals became thinned out, and but little business in that line is now done in the Crescent City. The Florida swamps and morasses are now the harvest fields, and Jacksonville, in that State, is the grand depot.

The animals are killed in great numbers by the passengers of river steamboats, though there are hunters who make a regular business of their capture. The alligators often attain a length of eighteen to twenty feet, and frequently live to a fierce old age. The hides are stripped off, and the belly and sides, the only portions fit for use, are packed in barrels, in a strong brine, and shipped to the Northern tanner, who keeps them under treatment for from six to eight months, when they are ready to be cut up.

So far the leather has been principally used in the manufacture of boots and shoes, for which it is especially adapted; and, by reason of the pleasing variegation of its surface, it makes a most excellent and becoming protection for the masculine, and, indeed, the feminine foot, for it is beginning to be employed in the manufacture of ladies' boots. Handsome slippers are also made, both of the blacked and unblackened skin, as well as shopping bags, portemonnaies, cigar cases, and small leather goods of all kinds; though, owing to the unfavorable state of trade, these latter have not been extensively introduced outside of this city.—*Boston Bulletin.*

Glazing of Pottery Without Lead.

A mixture of feldspar, silex, kaolin and fluor-spar may be used to glaze bricks and pottery in a manner as perfect as the common lead glazing, and much more safe in a sanitary point of view. When the ingredients are once mixed, they are ground in cylinders to a powder, which is passed through a very fine sieve. This powder, of which the natural color is white, but to which all the tints can be given, is mixed with water in a tub, till it presents nearly the consistency of molding plaster.

The brick, or piece of pottery which is to be glazed, is then plunged into the mixture. It adheres, on account of the porosity of the material, with which it incorporates while drying. Being placed in earthen forms, they are exposed in ovens to 1,500° Fahrenheit. The heat melts the preparation, and the glazing spreads uniformly over the surface of the objects, which only have to be taken out of the oven to cool.

Bricks treated in this way have great advantages. They are of an unusual strength, and resist as well the influences of the atmosphere as the action of the acids. They can successfully be employed to cover walls on the inside or outside, which they preserve completely from dampness. This method of glazing may be made available for many industrial applications.

LEATHERETTE.—This new patent imitation of leather, which has already been fully described, is alluded to in a late number of the *British Trade Journal*, as follows:

Specimens of leatherette, a capital imitation of leather, have been submitted to us during the past month, and make evident that some improvements have been effected in the manufacture which seem to justify further notice.

Briefly then, this leatherette is now dyed throughout, the surface—representing with wonderful fidelity the natural grain of leather—is more defined, and while the fabric has been strengthened, greater softness and a more leather-like feeling have been imparted to it. It is thus admirably fitted for use by bookbinders, and in many trades which have recourse to what we may term fancy leather.

THE EAR.—Mr. James Hinton, in his "Physiology," affirms that the passage of the ear does not require cleaning by us. Nature undertakes that task, and in the healthy state fulfils it perfectly. Her means for cleansing the ear is the wax, which dries up into thin scales, and peels off and falls away imperceptibly. In health the passage of the ear is never dirty, but an attempt to clean it will infallibly make it so. Washing the ear out with soap and water is bad; it keeps the wax moist when it ought to become dry and scaly, and makes it absorb dust. But the most hurtful thing is the introduction of the corner of a towel screwed up and twisted around. This proceeding irritates the passage and presses down the wax and flakes of skin upon the membrane of the tympanum, producing pain and inflammation and deafness. Washing should only extend to the outer surface, as far as the finger can reach.

The New Glass—Another Process of Producing It.

It is announced that Mr. Charles Pieper, a German inventor, has devised a way of toughening glass, which the German papers pronounce superior to that of M. de la Bastie, already described in these columns. The Pieper glass is said to be fully as strong as that of the latter inventor, and its appearance is much purer and clearer. Extended experiments upon it have begun in Germany. The Association of German Glass Makers has already entered into negotiations with Mr. Pieper for the use of his invention, suspending similar dealings with M. de la Bastie, on account of the immense price asked by him, over eight million dollars.

Hardening Glass.

In connection with the above the following will be read with interest: A process of hardening glass has been patented by Mr. Macintosh, of Westminster, Eng., a civil engineer who has devoted much time and attention to the hardening of iron, steel and alloys. Starting on the broad ground that, the lower the degree of temperature of the liquid in which certain heated bodies were plunged, the harder such bodies became, Mr. Macintosh has found that glass, graphite, uncrystallized carbon, slag and other analogous substances may be rendered exceedingly hard by means which are usually indicated for metals. Colored glass may, by this treatment, be rendered so hard as to be effectively used as a substitute for gems, and, what is curious, may be pulverized and used in the same way as diamond dust or emery powder.

In hardening the substance, the method pursued by the patentee is to place a small quantity of fused or nearly fused clear or colored glass in iron or other molds to shape the glass, and the substance is taken out of the molds and placed in platinum molds, and fused or nearly fused, and suddenly deprived of its caloric by frigorific mixtures of iced water and salt, or any of the freezing compounds that produce extreme cold; the sum and substance of which is that the glass is heated to a very high degree of temperature and then rapidly cooled in a very frigid fluid. A startling statement is made by Mr. Macintosh when he asserts that when the component parts of gems are treated by the above process, he is enabled to produce thereby fictitious gems even harder than real diamonds.

The Sand Blast—New Applications.

The sand blast has, in the four years it has been in operation, wrought a revolution in all kinds of ornamental stone cutting. For cutting glass the pressure of an ordinary blower is sufficient to make either a plain, uniformly depolished surface, or copy the most delicate line engraving; while for stone and metal cutting a pressure of from 90 to 100 pounds is employed. The contractor for furnishing 250,000 head stones to the government employs the blast; and by its use completes them at the rate of 300 per day, averaging eighteen letters each.

One great use of the blast, at present, is in the manufacture of plain and colored glass signs, of all descriptions, as well as door lights of most artistic and beautiful designs. It is also beginning to be used in lapidary work of all kinds, especially in the manufacture of initial jewelry. It is also employed very largely in giving the popular "satin finish" to silver-plated ware, and, more recently, to the manufacture of glass globes, bearing elaborate and artistic patterns.

The Ames shovel works, at Taunton, Mass., are proposing to apply the blast to the cleaning of their iron from rust, etc., a process now attended with considerable labor and inconvenience. A Taunton (Mass.) tack factory, which cleans 17,000 square feet of tack plate per diem, is also proposing to apply it to the same purpose. One of its most novel applications was the recent furnishing of 200 appropriately engraved glass cards, for the glass wedding of an eccentric Englishman. Some twenty tons of five-eighth inch glass for the dome of the New Orleans custom house were recently cleaned and depolished. Such thick glass is always full of little specks of dirt, etc., on its surface; but by the use of the blast a perfectly clean surface was obtained, which transmitted a clear, pleasant light.

A NEW ARTIFICIAL LIGHT FOR PHOTOGRAPHING.—The following is a description of a new artificial light for photographing, which has been recently invented in France. A quart bottle, with a somewhat large mouth, has a cork with two openings. Through one of these a tube passes to near the bottom of the bottle; through the second a larger tube, packed with iron scale, issues. Fragments of pumice fill the bottle, and on these carbon disulphide is poured. A current of nitric oxide prepared by Deville's method—by the action of nitric and sulphuric acids on metallic iron contained in a self-regulating reservoir—is passed through the bottle, where it takes up the vapor of the disulphide. It is then led through the safety tube packed with iron scale to the burner. Excellent photographs were taken in five seconds with this light, the object being six feet distant. In photographic power the light is asserted to be superior to the magnesium or calcium light, and even to surpass the electric light itself. The products of combustion are noxious and must be got rid of.

PATRONS OF HUSBANDRY.

THE HEADQUARTERS of the California State Granges are at No. 6 Leidesdorff street, in rear of the Grangers' Bank of California, No. 415 California street San Francisco.

Grange Clubs for the Rural.

The Secretary (or some other Patron) is invited to act as club agent for the PACIFIC RURAL PRESS in every Grange. Circular and sample copies sent free. Five or more names will constitute a club, at the rate of \$3 a year. No new subscriptions will be taken without payment in advance. We will pay the postage after January 1st, 1875. All club subscriptions in Granges should end on the last day of the month. Old subscribers may join the club by paying the Secretary up to club dates. Every Patron farmer should read a reliable agricultural paper. We need the support of all on this coast. Help the Secretary (or club agent) to make up a large list in your neighborhood. Don't delay.

Secretaries will be supplied with a printed list of subscribers for this paper upon sending a list of their offices within the range of their Grange. Also with blank reports, etc., for clubs.

MANUAL OF JURISPRUDENCE AND CO-OPERATION OF THE P. OF H.—This valuable work of 200 pages, by A. B. Smedley, Master of Iowa State Grange, should be read by every patron. Price, \$1.25. Now on hand at this office.

The California Farmers' Mutual Fire Insurance Company.

This organization is increasing its business steadily and rapidly at No. 6 Leidesdorff street, San Francisco. Twenty-eight applications for policies were filed on Monday, and we learn that the volume of business transacted during May was double that of any previous month. Policies on grain in the warehouse are now issued direct by local agents, so that the owner can get his policy with his warehouse receipt, thus avoiding the delay of sending the application for a policy to the home office in San Francisco. Consequently loans on grain can be effected as soon as it is warehoused. We believe this company to be worthy of the cordial support of Patrons everywhere. It is a correct theory that a company which takes nothing but farmers' risks can give its policy holders perfect indemnity against loss, at less rates than associations which take more hazardous risks. We refer all farmers to the prospectus of the company on another page, and to local agents for further information.

We can now name the following agents and branch offices, already established. Others will be established as soon as proper arrangements can be made, in different localities.

Stockton, W. L. Overhiser; Los Angeles, J. Q. A. Stanley; Colusa, Richard Jones; Modesto, Theodore Turner; Dixon, H. B. Sheldon; Salinas, A. M. Austin; Merced, Merced Grange Ware House Company; Oakland, Gladding, Surryhue & Co.; Yuba City, George Ohleyer; Chico, Alex. H. Crew.

"Under Grange Colors."

As might have been expected, the immigrants are suffering at the hands of those who are particularly anxious to provide for them. The Yolo Mail, of June 17th, exposes and justly rebukes the practice of a "Society in San Francisco, organized for the purpose of securing employment to laborers," and adds "the worst feature of this affair is the society sails under Grange colors, and thus makes it appear more plausible." The public should be informed that all such establishments sailing under Grange colors sail under false colors; and that the Order is not responsible for such organizations as the Grand Duke Alexis is responsible for "Alexis Gaiters." The acknowledgment that schemes "appear more plausible to the man seeking employment" by sailing under Grange colors is complimentary to the Order, but its members will be as ready as any to expose and "nip in the bud" any scheme for defrauding the workingman.

Meeting of Grange Business Incorporations.

A meeting of representatives of quite a number of our principal Grange business organizations was held in this city, June 22d. The report will be found, with other important information, on page 437 of this issue. Granges are now taking hold of business in a more thorough manner than formerly. By the experiences of the past, and with the good men in the front, the business arm may now be relied upon to advance with firmness and success.

A NEW GRANGE SONG.—We have received from A. L. Baucroft & Co., publishers, a copy of "California," a new and spirited Grange song, by J. W. A. Wright, Lecturer of California State Grange; arranged for piano accompaniment from this popular and stirring air of Frau Abt, entitled "Germany, Germany Over All." This fine song should be sung in every Grange in the State. Price twenty-five cents.

THE GRANGERS' BANK OF CALIFORNIA.—This solid institution seems to be getting on as well as could be expected. Its business and usefulness could be greatly extended by further capital. Its shareholders and friends should bear this in mind.

Co-operative Stores.

We have been repeatedly addressed by letter for a blank form of

Articles of Co-operation

For business purposes, and we have forwarded such samples as have been at our command. We now find in the *Sovereign of Industry*, the following sample form of articles of co-operation for a general store, which we think worthy of insertion in our columns, as we believe it will meet the wants of the Patrons of Husbandry, and of farmers generally, who wish to combine to transact business of any general character:

Articles of Co-operation for a General Store.

We, the subscribers, hereby associate ourselves for the purpose of conducting a co-operative store for the purchase and sale of general merchandise under the following conditions, regulations and restrictions:

ART. 1. The business shall be known as Co-operative Store No. — (town,) (state.)

ART. 2. The Shares of stock shall be \$— each, and are to be issued to Sovereigns only. They shall bear interest at the rate of — per cent. per annum, payable quarterly, and may be redeemed at par, by the Treasurer, any time after six months from the date of purchase, on demand or within sixty days, at the discretion of said officer. No one person shall ever own or control more than \$500 in shares of this stock.

ART. 3. All purchases and sales of merchandise shall be made for cash on delivery. The prices on sales shall be uniform to all persons, and shall not be less than the lowest market rates of the locality for unadulterated goods.

ART. 4. Sovereigns only, who are purchasers, shall share in the profits of the business, *pro rata* on the amount of their purchases; but all Sovereigns who are not stockholders, shall allow the Treasurer to retain such profits until they amount to at least one share of stock, which he shall then issue to them.

ART. 5. The business shall be carried on under the general supervision of three Directors, who shall be chosen annually, from the stockholders, on the first Monday in January. In the choice of these Directors, or in any other matter relating to the business, each stockholder shall be entitled to one vote, and only one, without regard to the number or amount of shares owned by him.

ART. 6. It shall be the duty of the Directors to employ a suitable person to sell the goods, who must be a stockholder, and be known as Treasurer. It shall be their further duty to act as advisers, make monthly examinations of the business, and audit all the accounts of the Treasurer, which shall be made to them quarterly. The Treasurer shall give such bonds to the Directors for the faithful performance of his duties as shall be satisfactory to them. No Director shall ever be allowed to act as Treasurer.

ART. 7. The Treasurer, by advice of the Directors, may employ such assistance as the business requires; such persons to be stockholders. At the end of every quarter, he shall ascertain the exact profits of the business and dispose of the same as follows: First, pay all store expenses. Second, the salaries of the Treasurer and his assistants. Third, the interest on stock. Fourth, nine-tenths of the balance shall be divided *pro rata* on the sales to Sovereigns and paid to them in cash if stockholders, or issues of stock if they are not.

ART. 8. The Directors shall be entitled to a suitable compensation for the time engaged in their duties. The Treasurer and his assistants shall, in all cases, be paid for their services by a fixed salary. In no case can either Directors, Treasurer or his assistants be allowed to receive any commissions, or share in any way a percentage of profits in any way connected with the business, otherwise than such as are herein provided for all other stockholders and purchasers of goods.

ART. 9. At the end of each quarter, before the division of profits, the Treasurer shall reserve one-tenth part of said profits and carry the same to the credit of a redemption fund, to cover any loss in the depreciation of merchandise, and insure the general safety of the business. This reserve shall be continued until the redemption fund amounts to thirty per cent on all outstanding stock. The same shall be permanently held, and divided only in the event of final closing up of the business; in that case *pro rata* in the amount of the existing stockholders.

CERTIFICATE.			
No. —	Shares.	No. —	Shares.
Owner.	Shares \$ — Each.	This is to certify that —	
is the owner of — Shares of stock in Co-operative Store No. — (town) (State). Entitled to the benefits and subject to the restrictions as defined in the Articles of the Association.			
Date,	187—	Date,	187—
Treasurer.			

(The attempt is here made to condense and simplify co-operation. There is no necessity for a President and Secretary nor formal meetings nor resolutions. The three best men for Directors, with the right to drop them for sufficient cause at any time, is all that is required, and any company of stockholders can elect them in the simplest democratic manner. Yet, if a more complicated system of by-laws and the like is preferred, there is no objection to it.)

THE EXECUTIVE COMMITTEE of the State Grange meets on Tuesday, July 6th.

The Grange Room.

The Grange is a family. No other association on earth so fully represents this sacred and holy relationship. It is in this home-like social feature that the great attraction and strength of our Order is found. In the multiplicity of business with which our meetings are crowded care should be taken that the social family feature is not overlooked or neglected. As at the close of the labors of the day on the farm, the family gathers together in some pleasant room for social, mutual intercourse, and to render the evening pleasant and profitable, so should the family of the Grange, leaving the cares and labors of the farm and household, assemble together to exchange views, to broaden the sphere of thought, to enjoy social intercourse, recreation and rest, and thereby renew their energies for the labors of the morrow.

One important thing in this connection is a pleasantly situated and a pleasantly furnished room in which to meet. Where circumstances are such as to admit of such a thing, this preparation should not be neglected. But whatever may be the room, a few pictures on the walls, bouquets of flowers on the officer's desks, a few evergreens tastefully displayed here and there, can always be obtained, especially in this region, such as will give an appropriate, cheerful and home-like aspect to the place is meeting. The expense, if any, and trouble of but trifling, while the gain in enjoyment cannot be computed in dollars and cents.

Brother Smedley, in his valuable little volume just published—"Manual of Jurisprudence and Co-Operation of the Patrons of Husbandry," in alluding to this matter says: "I can conceive of no more beautiful and enlivening scene than a Grange room, furnished with simple grace and taste, with music and singing, the brothers and sisters putting away for a time the burdens and cares of daily labor and entering fully into the spirit of the occasion. To woman, more especially, is this occasion one of inestimable value. With our isolated homes, with the burdens of daily responsibility resting upon the women of our country, the meeting of the Grange furnishes a season of rest and enjoyment, which is an absolute necessity to the sisters of the Order. The place of meeting should be made the most pleasant and attractive in the neighborhood. Let the beauty of the room, the genial, harmonious spirit of the members, the beauty and sacredness of our ritualistic work, the music both instrumental and vocal, and the social spirit of the occasion, all tend to make these gatherings so attractive, that all should look forward to the meeting of the Grange with pleasing anticipations."

We are happy to state that the suggestions of Brother Smedley are pretty generally carried out here in California. Many of our Granges have constructed elegant and convenient halls for their especial use, and in places where such an expense would be too great a burden upon the Grange, care is taken to provide the best accommodations which the place will afford. Music, both instrumental and vocal, is almost universal, while a good and appropriate use is made of the flowers which abound with such profusion in our genial California climate.

In Memoriam.

WHEREAS, Since our last meeting the hand of death has been laid heavily upon us, and the Divine Master has seen fit to call to higher work above our most worthy and esteemed Sister, NETTIE HAMILTON. It is therefore

Resolved, By this Grange, that in the death of Sister NETTIE HAMILTON Manchester Grange has lost one of its respected members, the community an upright and honorable woman, and her family a devoted daughter and sister.

Resolved, That we deeply mourn the departure of our Sister from our midst, feeling that in this we have lost one who was indeed a sister in the highest and most Christian sense, a sister faithful and devoted, exemplary in character and conscientious in the discharge of all duties.

Resolved, That a copy of these resolutions be placed on the minutes of the Grange, and that a copy be sent to the family of the deceased and to the RURAL PRESS for publication.

C. B. PEASE,)
D. F. CAIN,) Com.
LEWIS MORSE,)

In Memoriam.

EDITORS PRESS:—I am requested to forward to you the following resolutions:

WHEREAS, It has pleased an all wise Providence to suddenly remove from our midst our beloved Secretary, Brother J. J. BATES, therefore be it

Resolved, That in the death of Brother J. J. BATES the community has lost one of its staunchest patriots, and our Grange one of its most faithful and efficient members.

Resolved, That we deeply sympathize with his bereaved family and relatives, and that a copy of these resolutions be sent to his family.

Resolved, That these resolutions be spread on the minutes of this Grange, that a copy be sent to the PACIFIC RURAL PRESS and to the Sacramento Valley Agriculturist for publication.

Resolved, That the members of Florin Grange wear the usual badge of mourning for thirty days.

WM. SCHOLEFIELD Chaplain.

Florin Grange, June 15th, 1875.

NOR YET.—No change has yet been made in the Constitution of the National Grange requiring any other system of representation in State Granges than that of all Masters and their Matrons. The organization of Pomona Granges may eventually result in a new system of representation in this State as well as others.

Inklings from the Country.

DEAR RURAL:—I read with pleasure your last week's issue, filled with valuable agricultural hints, practical ideas in regard to stock raising, careful suggestions for housekeeping, good advice to the rising generation, choice extracts from celebrated authors, besides many other things invaluable to the farmer, and practical men and women in general; but last, though not least, I must not omit to mention that I enjoyed in a high degree the perusal of Brother Baxter's article on Yosemite. I, like Brother B., think we must all go to Yosemite—not in a rush, not *en masse*, but wend our way thither as the pilgrim and devotee wends his way to the shrine of Mecca. Season after season and year after year, let us go. Let us drop the plow, the mower, the hoe, the pen, the ledger, axe, even the frying pan and wash board, and that everlasting and never-to-be-set-aside sewing machine. How invigorating to revel in the smiles of nature, and smooth out the wrinkles and comb out the gray hairs as we grow "a thousand years younger." We are an aspirant for a trip to Yosemite. We shall save up that hope like a child saves a sugar plum, keeping awake nights in blissful anticipation of the time to come. The time is coming, for we've seen and notified the "neighbor," whose farm we are to "mortgage." "All hail to Yosemite!"

This much by way of digression. By some remarkable freak in the distribution of the watery elements, Dame Nature favored our locality with a beautiful rain on the night of the 12th instant. It came with its "tiny feet," pattering on the roof," as the poet would have it, but in my humble opinion the farmers didn't put any great emphasis on the "tiny feet," they only thought of their huge stacks of hay, and in many cases of grain also, exposed to the unlooked-for shower; and while I write the indications promise a moist night. When will wonders cease? This year our community suffered from the effects of unlooked-for frost. Now, in the heat of June, we have an unexpected heavy rain. We begin to see that California is not to be depended on; she is no better than her sister States. It can freeze when it is warm and it can rain when it is dry; and instead of growing wiser as she grows older, she has learned unsteady ways, and grown reckless by prosperity and success; she is indulging in dissipation. Now, softly, we can say these things about California, but we wouldn't allow others the privilege, for we know with all her faults, California is just the finest State in the Union.

Grain crops here, though not heavy, are good, especially the late sown grain. Haying is over and heading has commenced. The new road through Putah cañon, connecting with the railroad at Winters, is rapidly being pushed forward, with the intention of having it completed in time to haul away the present crop of grain.

BERRYESSA, June 14th, 1875.

From the Granges.

Geyserville Grange.

EDITORS PRESS:—It was decided at our meeting to-day to have a celebration of the Fourth of July, to wit: on Saturday the 3d, with a Granger's basket picnic. Healdsburg and Cloverdale Granges agreed to join in with us. Citizens of the neighborhood are invited also.

It was considered by us as very appropriate to have an eloquent Brother Grainger to deliver the oration to us.

H. WIEDERSHEIM,

Sec'y Geyserville Grange, No. 7.

Geyserville, June 19th, 1875.

(According to indications numerous Granges will combine Grange festivities with the celebration of the "glorious Fourth," on the coming anniversary of American independence. This is proper in every sense of the word, and we hope the example will be imitated by many more. They will have time even after the receipt of this issue of the PRESS to get up a good celebration of this character. These hastily improvised occasions are often more enjoyable than those of more elaborate preparation.—EDITORS PRESS.)

GRANGE ITEMS.—MESSRS. EDITORS:—In a short letter enclosing lists of charter members of Kingsburg, No. 250, and Riverdale, No. 251, our two new Granges in Fresno county, your readers found some facts connected with the steadily brightening prospects of this central portion of California.

Accept in this a few additional items culled during that organizing trip, and, also, some incidents connected with a later visit to three of the first Granges in our county, which it was my privilege to start in life just eighteen months ago, viz.: Garretson, No. 132, at Geyserville or Kings River P. O.; Fresno, No. 133, at our county seat; and Adams, No. 143, in the Dry Creek settlement. J. W. A. WRIGHT.

Borden, June 21st, 1875.

[The very interesting "Otherwise" portion of Brother Wright's letter will appear in the "Correspondence Department" of next week.—EDS. PRESS.]

Grange Decisions.

BY THE MASTERS AND EXECUTIVE COMMITTEES
OF THE NATIONAL GRANGE.

[We select from the "Patrons' Parliamentary Guide" (official), the following decisions, as those most likely to be of interest to Patrons generally. We publish them as revised and adopted at the 8th annual session, Feb., 1875. Every Master should examine the "Guide" and the amendments and the additions thereto throughout. They can be obtained free on application to the Secretaries of State Granges.]

On the Powers and Duties of a Grange.

8. A Grange cannot change its name or number after its charter has been issued.

9. Degrees may be conferred at either regular or special meetings. At special meetings, called for the purpose of conferring the 1st, 2d or 3d degree, it is not necessary to open in the 4th degree. A Grange may close from any degree in which it has been sitting.

10. It is not allowable for a Grange to discuss the merits or demerits of a candidate.

11. No vote can be taken on any question except in the 4th degree.

12. In balloting for candidates the ballot is secret, and no member can be required to tell how he voted.

13. No person can be admitted to membership free.

14. The entire membership fee must accompany the petition, and cannot be divided among the several degrees.

15. A Grange cannot vote back to a member any portion of the membership fee.

16. A Grange can provide by by-law for more than one regular meeting a month, but must have at least one.

17. A Subordinate Grange cannot move its place of meeting within the jurisdiction of another Grange, without the consent of the Grange whose jurisdiction is thus infringed upon.

18. A Grange cannot have two places of meeting and claim jurisdiction from both as centers.

19. A person who is elected to membership or office in any manner other than by ballot is not legally elected.

20. No person is eligible to office in any Grange, either National, State, or Subordinate, who is not a member thereof.

23. A Grange cannot ballot upon an application for membership at the same meeting upon which it is received.

24. A Grange may ballot for a candidate and confer the 1st degree upon him at the same meeting.

25. A Grange cannot ballot for more than one candidate at the same time; each must be balloted for separately.

26. A Grange can sit in different degrees during the same meeting.

29. A Grange cannot divide into two Granges and divide the property.

30. A new Grange cannot be formed in the jurisdiction of a suspended Grange, during the time of its suspension.

Relation of Applicants and Members to a Subordinate Grange.

31. No one can be held ineligible to membership in the Order on account of religious belief or political opinions.

32. Blindness does not render a person ineligible to membership.

33. A married lady whose husband is eligible, but not a member of the Order, may be admitted to membership.

34. Membership commences at the time a person takes the 1st degree.

35. After an applicant has taken the 1st degree he is entitled to all the pecuniary and other benefits to be derived from a connection with the Order, and therefore is subject to the payment of the same dues as other members, without reference to the time of his receiving the other degrees.

36. A member does not pay monthly dues to his Subordinate Grange for the fractional part of the month in which he is initiated, but from the first of the subsequent month.

37. A Grange may suspend members from membership for non-payment of dues.

38. Suspension from membership does not excuse the suspended member from payment of dues during the time of suspension.

39. A member suspended for non-payment of dues can be reinstated by the Grange upon payment of all dues up to the time of reinstatement. This rule does not prevent Subordinate Granges from adopting by-laws terminating the membership, or prescribing other conditions of reinstatement, after the member has been delinquent a specified time.

40. A member is only balloted for once, and that is before receiving the 1st degree.

41. If an applicant is balloted for whose fee does not accompany the petition, and is elected, the election is illegal and the degrees should not be conferred; if rejected, the rejection is illegal and the applicant may apply again at any time.

42. After an applicant has been rejected, if a member voluntarily declares that he cast a black ball by mistake, the Master may immediately order another ballot.

43. A ballot must be held upon an application whether the report of the committee is favorable or unfavorable.

44. A member must not disclose outside of the Grange the result of an unfavorable ballot.

45. The application of a candidate can be withdrawn at any time before a ballot is ordered thereon.

[To be Continued.]

Pomona Granges.

Soon after the Order of the Patrons of Husbandry had become an established institution, and the Subordinate Granges had become numerous in the States generally throughout the Union, a necessity became apparent for some organization which should come between the State and Subordinate Granges. This was especially felt after the business arm had become an important feature in the Order. In order to meet this need County and District "Councils" were established in most of the States, to which the Subordinate Granges sent delegates. These organizations, first established for mutual consultation, soon began, by common consent, to take a sort of supervisory care over the Subordinate Granges within their county or district. As it was considered necessary that fourth degree members should be admitted to these organizations, in order that the counsel and advice of members, who had never been Masters, might be availed of, the work of these County Councils was necessarily conducted in the fourth degree.

Still, important as these auxiliary organizations were, there was no provision in the constitution under which they could have a legal existence or be in any way recognized by either the State or National Grange—in fact they were altogether illegal and entirely out of order. Under these circumstances an amendment to the constitution was proposed (among others for different purposes) at the St. Louis meeting of the National Grange, which was duly ratified at the next National Grange meeting held in November last, at Charleston, by which such County or District Granges could be legalized and their acts made binding upon the Order. The principles which underlie their formation and government are not necessarily derived from precedent, usage or necessity; but are to be found in the principles of the Order.

Brother Smedley, in his useful "Manual of Jurisprudence," says in relation to the necessity of this new feature: "Formerly the fifth or Pomona degree was conferred only in the State Grange, and none were eligible except Masters or Past Masters, and their wives who were Matrons. As the State Grange met but once each year, and under a later system of representation only a part of the Masters were representatives to that body, a large number of worthy Brothers and Sisters were deprived of one of their prerogatives, unless they chose to incur the oftentimes burdensome expense of attending the sessions of the State Grange for this purpose.

"Then, too, as the meetings of that body were so rare, the enjoyments and instruction of the real work of the degree were in a great measure lost. Again, there are always some in each Subordinate Grange who are studious and earnest, and who are desirous of advancing to the higher degree; all such, unless Masters or Past Masters and their wives who were Matrons, were debarred from advancement.

"The new law, however, meets these difficulties, and enables those who are constitutionally eligible, as well as a portion of the fourth degree, to receive the instruction and enjoyment of the advanced degree.

"All Patrons will concede that this is a step in the right direction, and a step which, no doubt, when an opportunity has been given to systematize the work thus far, will be followed up by giving it a wider range."

Action in California.

At the first meeting of the Executive Committee of the California State Grange held after the official promulgation of the new law authorizing the establishment of Pomona Granges, that body recommended that the County and District Councils then existing in this State should take the earliest opportunity to re-organize in accordance with the new constitutional provisions.

The Committee at the same meeting adopted a series of rules and regulations for the establishment of such fifth degree Granges. These regulations were published in full in our issue of May 8th. Their chief features may be re-stated, briefly, as follows:

To establish a Pomona Grange in any county or district, an application must be presented to the Master of the State Grange, signed by the Masters of not less than four Subordinate Granges, and accompanied by a fee of \$15 for a dispensation. Every member of the Pomona Grange who has received the fifth degree will be required to pay an entrance fee of \$3; and all fourth degree members elected to a Pomona Grange, which entitles them to the fifth degree, will be required to pay \$5.

No person is eligible for membership in a District Grange who is not personally engaged in agricultural pursuits and living upon a farm or personally superintending the cultivation of one, and who has no interests in conflict with the purposes of our Order. The candidate must also be thoroughly acquainted with the unwritten work of the four first degrees, and capable of passing a rigid examination therein.

The first Pomona Grange in California was organized some two weeks since by Worthy Master Hamilton in Los Angeles county. A letter giving the particulars of this organization which was mailed by Brother Hamilton for publication in the RURAL PRESS has failed to come to hand.

We shall give some further remarks in relation to this new and interesting feature of the Order in our next and subsequent issues. In the meantime we trust the various County and District Councils throughout the State will take early steps in accordance with the recommendation of the State Executive Committee to re-organize in the form of Pomona Granges.

AGRICULTURAL NOTES.

AMADOR.

A BENEFIT OF THE RAIN.—*Ledger*, June 19: The heavy rains will doubtless seriously injure pasturage in the foothills, if not entirely destroy it. But good will likewise result; our farmers are busily engaged in plowing their lands for early sowing this fall. The ground is now in fine condition for the plow.

BUTTE.

A GOOD DEAL OF DAMAGE DONE.—*Oroville Mercury*, June 18: A most unusual fall of rain took place on Saturday night and Sunday forenoon, for this season of the year. A very large amount of hay had been cut and left in such a manner as to be exposed to the full force of the storm. The whole of it is badly damaged. The grain in stacks will not suffer greatly if the weather clears off warm so as to dry them soon. The standing grain has suffered much. The south wind blew fiercely and bent it to the ground while it was wet, and the stalks were easily broken. Upon the rains ceasing the wind changed to the north, and blew such of the stalks as were not broken to the ground in the other direction.

CALAVERAS.

SUMMER FALLOWING.—*Chronicle*, June 19: The late rains have moistened the ground sufficiently to admit of summer fallowing, and ranchers generally are busily engaged in plowing. Ground thus prepared will be in excellent condition for the reception of seed next fall, and can be sown with the falling of the first rains. It does not often occur that plowing can be done here in the middle of June.

COLUSA.

BUT LITTLE GRAIN SPOILED.—*Sun*, June 19: The grain crop has been damaged by the rain very considerably, but the sun coming out so bright and warm Wednesday afternoon and Thursday there will be but little spoiled, and the greatest loss will be occasioned by the shelling out by the extra handling some of the cut wheat will require, and the wetting also makes both the wheat in the stacks and the standing wheat easier shelled out. The stacks of headed wheat are reported wet about two feet on the top and on the south side. The grain that has been covered up will sprout, but it is thought that in a great many fields there will be enough left that is yet on the top of the ground for volunteer, if the owners desire it.

CONTRA COSTA.

LIGHT FALL OF RAIN.—*Gazette*, June 19: The rain which was quite light here last Saturday night and Sunday morning was very heavy in some other sections of the State, and the rain of Tuesday and Wednesday appears to have been generally heavier elsewhere than here, where, by our measure, it was altogether but a fraction over a fifth of an inch, while that of Saturday night was 13-100. If it has not been greater in other sections of the county, though it will occasion some trouble in drying and re-stacking cut grain and hay, we shall not be likely to suffer greatly from the effects of the unseasonable showers. At this writing, Wednesday evening, the storm seems to be over, and if we have a breezy westerly wind, as we are now promised, there will be no apprehensions of rust in the lodged unripe grain.

LAKE.

INJURIOUS RESULTS OF THE RAIN.—*Bee*, June 17: Here, in the middle of June, we are in the midst of winter; the wind blowing cold and strong from the southeast; the rain falling in torrents, and no indication of better weather. The storm has done great injury to the farming interest of this county. The hay crop which was generally cut and in the field, is now badly injured, if not ruined altogether. The grain which a few days ago was standing up almost ready for the husbandman's sickle, now lies prone to the earth. So that not one-half of it can be harvested.

MARIN.

THE HAY CROP.—*Journal*, June 17: Mr. Gordon measures the entire rainfall during the late storm at 2.08 inches. The wind has been in the southeast, the weather cool, and the storm has seemed in all respects like those common to the wet season. Much injury will result to the hay crop, both cut and uncut, and no doubt the old feed will be injured, while no new grass will be started, except perhaps in low, wet spots.

MERCED.

GRAIN NOT INJURED.—*Argus*, 19: In conversation yesterday with several large farmers of this vicinity, we were informed by them that the rain has done no material injury to either the standing grain or the grain in stacks. Although something above an inch of water fell, the grain in stacks was not wet to a sufficient depth to cause it to heat, and as there has been but little wind since the rain set in, but a small amount of the standing grain has been blown down or lodged. Much damage has been done, however, to the dry feed, and to hay in cocks or winrows.

MENDOCINO.

GOOD FOR THE CROPS.—*Democratic Dispatch*, June 19: The cool weather and rains of the last four or five weeks have done a great deal for the crops in this county. It is thought that all kinds of agricultural products will be above the average yield.

NAPA.

THE LOSS AND THE GAIN.—*Reporter*, June 19: We have made diligent inquiry as to the damage sustained by our farmers in consequence

of the recent rains. About one-third of the crop was out in the storm, which has been deteriorated about twenty-five per cent. Feed on the hills and mountains which had matured must be considerably damaged, and we fear that our worst hurt is from that direction. Mr. Lewelling, of St. Helena, tells us that the rain will be of immense advantage to the vineyards. What applies to the grape crop also applies to the orchards. Apples, pears and other fruits will grow larger and better than on any preceding year. Many corn crops which had almost been given up will now come out and make a fine return. Vegetable gardens and truck patches will feel the influence of the showers for good, and the gain in product will be very great. Mixing the good with the bad we can hardly be said to have lost anything in this county.

PLACER.

EFFECT OF THE STORM.—*Herald*, June 19: We have no means of knowing exact, but at a rough guess, would put the rainfall here at about two inches. Of course this heavy rain coming in the middle of harvest, and so little expected, must result in much damage, especially to the farmers and stock raisers. Much hay and grain already harvested must necessarily be spoiled, though from what we have noticed as the effects of summer showers heretofore, we fear the greater damage will be done to the standing grain.

PLUMAS.

GOOD CROPS PROBABLE.—*National*, 19th inst.: Rain, rain, rain, has been the weather programme for the most of the past week. Not the little fleeting showers which usually visit us in the summer, but steady pouring rain for hours at a time. The crops look splendidly, and if no hard frosts come, this will be a very successful season for the farmers, and the market, owing to the short crops below, will be good.

SACRAMENTO.

GOOD FOR VEGETABLES.—*Folsom Telegraph*, June 19: If ranchers have suffered from the effects of the recent rain storm, in having their crops much injured, gardeners will rejoice in the greatly accelerated growth of vegetables. All things seem brighter; the air seems purer and fraught with a fragrance, purity and freshness that is healthful and invigorating.

SANTA CRUZ.

NO GREAT DAMAGE APPREHENDED.—*Watsonville Pajaronian*, June 17: We do not apprehend that great damage has been done by the rain in this valley. Considerable grain will be badly lodged. As this is not much of a hay section, but little damage will result to this crop.

SAN LUIS OBISPO.

DRY FEED INJURED.—*The Tribune*, of the 19th inst. says that the total rainfall during the late storm amounted to 1.35 inches, but adds: So far as we can hear but little damage has been done to grain and hay, but all agree that dry feed will be seriously damaged.

SAN MATEO.

RAIN.—*Gazette*, June 19: On Tuesday and Wednesday it rained heavily here. Probably one inch of water fell. The farmers of Half Moon bay had nearly all their hay and grain cut and in the field.

SONOMA.

THE DAMAGE OVERSTATED.—*Petaluma Argus*, 19th inst.: A storm of unusual violence for this season of the year, set in on Sunday last and continued with more or less severity until Wednesday. According to our meteorological report 1.45 inches of rain fell. Considerable damage was done to the hay crop, and some of the grain was thrown down. We are assured, however, that the damage is not so great in this county as was at first feared. Besides the rain has been of considerable benefit to late sown grain, and to the potato and corn crops. We are informed by Wm. White, of Bloomfield, that the rainfall in that locality for the storm was 1.20 inches. The fall in other parts of the county was about the same as at Petaluma.

farmers who do not anticipate any serious loss. The late grain, the corn and potato crop was being immensely benefited. A farmer who had a large field of hay in the cock informs us that he made careful examination and found that it was not wet in further than six inches. We think that the damage here and throughout the State has been over-estimated.

STANISLAUS.

CONSIDERABLE DAMAGE TO GRAIN AND HAY.—*News*, June 18: The heaviest rains in this county appear to have been along the Stanislaus river, and in the eastern part of the county skirting the foothills. The greatest damage has undoubtedly been from the falling of the grain. The stalks becoming soft from the rain fell under the weight of the matured heads, and as it is thoroughly ripe, there is no likelihood of its again assuming an erect position.

SUTTER.

DAMAGE BY THE RAIN NOT SO GREAT AS FIRST ESTIMATED.—*Banner*, June 19: The rainfall here measured an inch and one-fifth, and has caused considerable damage. The grain and hay in stack are wet to various depths, according to the manner of stacking. So far as we have been able to get at the facts we are of the opinion that the loss will not be so great as was at first conjectured. The favorable weather which followed will allow the grain to dry, so that the damage will be materially lessened.



How Will It Be?

[Written for the RURAL PRESS.]

The voice of birds and hum of bees,
Cool paths through shaded rows of corn,
The winds that linger through the trees
And daily through the sweet June morn.

A low browed cot amid the scene,
Guarded by trees of stately oak,
Whose rich, dark leaves are glistening
Amid the clouds of curling smoke.

Bright blossoms with their varied shades
Border the path down to the gate,
And just beyond the fields of grain
Are waving 'neath their golden weight.

There is the orchard down the slope;
The vineyard greets the sun of June;
Behind the barn and down the hill
A brook slow sings a dreamy tune.

But dearer far than aught of these
In this abiding place of earth,
Are the loved forms that dwell therein
Bound by the tender ties of birth.

The brave companion of my life,
Now scarred by many battle storms;
A maiden and a sturdy youth,
And still two younger childish forms

These are my treasures, they are mine!
My fellow voyagers on life's way;
And this my home, and this my shrine,
Lived o'er, and loved from day to day.

I sometimes ask my doubting soul,
How will it be in time to come?
When years their swift events shall roll
And bring their changes to my home?

If we together then shall dwell,
And they my fading years shall bless,
While journeying down life's sunset slope,
With many a smile and fond caress.

O, winds! that murmur through the trees,
And sing your ceaseless songs to me,
O, breeze! that fits from western seas,
In years to come, how will it be?

O, foolish heart! I only know
The present, bright with hope, is mine
The future, fraught with weal or woe,
Is hidden by the veil of time.

Then sing, ye winds, amid the trees,
And dwell, loved voices, in my ear;
While home is blest with sweet content
O! doubting heart, we need not fear.

Mrs. MOLLIE STAFFORD.

Berryessa valley, June 14th, 1875.

Professional Training Schools for Girls.

It is no trifling matter to keep up with the progress of the age in matters of education. Twenty years ago I could have counted on my fingers the number of eminent names who favored the admission of practical sciences, as such, into our higher institutions of learning. Now I should require a pretty large bag of beans, so many of our savane "know beans" and their uses. Two books lie on my table at this moment, the like of which my eyes have desired to see, lo! these many years; and seeing which makes me feel, not as Simeon did, that I would "depart in peace," but that I should like to live forever. One of these books is an Englishman's plea for a great national institution for the training of technical teachers, for a "Central Technical University," or people's normal school.

Another and even better book is "Social Science and National Economy," by Robert Ellis Thompson, Professor of Social Science in the University of Pennsylvania. Hear what he says of the science and economy of education: "Less can be said for the quality than the quantity of the education given by our public schools. Without discussing in detail the merits and defects of our present systems, we shall seek to discover what idea is rightly conveyed by the term 'national education.' It is one that gives the scholar such general instruction and offers him such opportunity to acquire special training as will fit him for his special profession, calling or industry, and will enable him to pursue it in the most effective manner." He goes on to say that "the State should give in its public schools each general and special training as will fit its members for the industrial state, especially in the two great industries, agriculture and manufactures." He says "the present routine, especially the study of geography, should give way to neighborhood knowledge, to intimate acquaintance with things about us, that the technical education of the farming class should begin in the public schools, and with the first years of study. The useful branches of natural history, the nature and habits of the domestic animals, of the cultivated vegetables, and the agricultural geology of the district should be among its themes. The child should be taught at once the rightful respect for his father's mode of life as concerned with the most valuable of the human sciences, and also to thirst for a more extensive acquaintance with these sciences as bearing upon that occupation. In a word, the

school should be, on this side of its life, a preparation for the agricultural college.

"All this applies with tenfold force to the foreman of the workshop, the non-commissioned officers of industry." Prof. Thompson praises the Grangers or Patrons of Husbandry "for the very excellent results to be expected from the stand they have taken on this subject." But he does not anywhere show the bearing of these principles on the education of girls. Probably unlike the never to be praised enough John Anderson, of the Kansas agricultural college, he does not sufficiently enjoy the contemplation of "woman as an industrialist," but to show what can be done, and what has been done, let me translate from the French the story of one of these efforts in Paris.

The schools of Elisa Lemonnier are professional schools for girls, five in number, distributed in the different quarters, and are at this moment giving instruction and business education to 600 young girls, who are constantly in demand by the Parisian merchants for their skill, their business aptitude, and above all for their good characters. The foundress laid down the principle that religion should be taught in the family, and all sects are admitted without distinction or preference. The morning is occupied with general instruction not materially different from that of elementary schools of the second (French) grade. In the afternoon the pupils are divided, according to the calling which they expect to follow, into groups representing nine trades or employments, as follows: Commerce, "Herborist" or Florist, industrial design, wood engraving, painting on porcelain, or other decorative arts, fan making, etc., artificial flower making, confectionery, *Lingerie* or fine sewing of all kinds, mending.

This noble work had a very modest beginning. In the year 1856, under the presidency of Elisa Lemonnier, a society was formed for the maternal protection of young girls, giving them gratuitous instruction, and placing them where they could obtain an honorable livelihood. In 1862 they enlarged their operations and the society took its present name, "Society for the Professional Training of Women." Madame Emile Souvestre, Clausse Coignet, Mlle. Julie Toussaint and others obtained the means for this enterprise by their own efforts; little by little subscriptions flowed in, until now distinguished scholars and statesmen are proud to be enrolled as members of the society, and its reserve fund amounts to 275,000 francs. Its management is exclusively confined to women, and Madame Jules Simon is its present efficient head.

There are schools established in London for the training of professional cooks, laundresses, etc. We are a practical people in other respects, is it not time for us to adapt some of these European models to our own special circumstances and needs. An easy step in the right direction would be the establishment of vacation schools, where some of these useful arts could be acquired in the intervals of intellectual study.

JEANNE C. CARR.

CHOOSING A MATE.—Many of our correspondents solicit information as to the best way to choose husbands; and, on the other hand, many of those whose destiny it probably is to be chosen as husbands, anxiously inquire how they shall choose wives. Of one thing the girls may be sure, and that is, that the young men who make the best sons and brothers will also make the best husbands. And the young men may be equally sure that those girls who are the best daughters and sisters, will also, as a rule, be the best wives. If a young man, before he is married, is destitute of those affections and principles which come out of filial obedience and fraternal courtesy and a controlling sense of duty, he will be equally destitute of them after he is married. The mere fact of wedlock will not change the fundamental principles of his nature. He will be essentially the same human being after marriage—or, at least, after the honeymoon—that he was before it. The same principles hold true in regard to women. She who is selfish, and vain, and idle, and deceitful, as a girl, will be pretty apt to be the curse of the man who marries her. While the girl who is dutiful to her parents, and industrious, and unselfish, and truthful, will be almost certain to be a blessing to him who gets her for a wife. In addition to all this, it is of the first importance that a proper physiological and mental adaptation be secured. —*Herald of Health.*

JEALOUSY is at once the meanest and the most unaccountable of vices. What belongs to us we shall have inevitably; and what we want and have not, we shall never win by unreason. If we are lovely, we shall be loved, and if we are unlovely, we shall not be loved, no matter whether any other takes our place or not. Jealousy of the wealth, the social importance, or the happiness of others is alike unaccountable and absurd. Your own house is not lowlier because your neighbor's is two stories higher. If he should fail, and have to give up his carriage, it would only crowd the omnibus a little more, and by no means provide you with a vehicle. What is it in human nature that makes our poor fare seem poorer because our neighbor is eating roast duck and drinking champagne? To envy the love bestowed upon another is equally idle. Hearts keep their accounts usually with very tolerable fairness. We shall receive that of which we are worthy—no more—and what is our own, by virtue of our desert, no fate can take away.

Apologies Not Needed.

Everybody knows that window panes will grow dingy, that dust will accumulate, that the faces of little children, like their clothes, have a natural affinity for dirt, that all clothes will wear out, that paint is sure to be finger-marked, that china will get chipped, and that it is simply impossible to keep everything in perfect order all the time. Nevertheless, we are all continually apologizing for omissions, negligences and errors which cannot be avoided, and which would not be noticed, perhaps, if attention were not called to them by ill-timed apologies.

It is refreshing to go into the houses of our friends and see things a little topsy-turvy, and be assured by what we see that "we are all mortal, and only what is common has happened to us;" that just when company comes our hostess has nothing cooked; that children usually quiet and orderly, when animated by the presence of visitors, "show off" to the greatest possible disadvantage, and thus that other people have their trials as well as we ours, and that the difference between these and those is quite trivial. On the other hand it is really depressing to come across a woman who always, under all circumstances and on all occasions, is ready for company, on whose ceilings spiders never hang their webs, behind whose furniture dust never hides, whose closets and drawers and trunks, being thrown wide open at any moment, show only orderly interiors. Let the language be changed a little; if such a woman could be found it would be discouraging to persons of ordinary feelings. While she had been polishing her silver, notching her shelf paper, fluting her pillow shams, adjusting the position of easy chairs and ottomans, and brushing away the last suggestion of dust from the mantel piece, possibly it might appear that she had not had time to glance at the latest discoveries in science, to enjoy the last new poems in our leading magazine, to kindle her patriotism afresh by reading accounts of the Centennial celebration, and that she is by no means a leader in the literary and intellectual world.

Should she apologize for this? By no means. Let her be happy, if thus it must be, with only housekeeping, and let her sister, who loves something else better than painful domestic neatness, rejoice without envy in that something better. It is much the wiser and nobler way to pass the little things for which apologies are made in silence, and to lead, if possible, the minds of visitors not toward but away from those things which suggest apologies. The habitual apologist is invariably weak in mind or body and frequently in both. —*N. Y. Tribune.*

Going to Heaven Barefooted.

During the pioneer days of Iowa, the town had an editor who was patient and long suffering. Some of the members of the church got him to give twenty dollars toward securing a minister; then they wanted five dollars for the heathen; then they wanted their religious notices inserted free; then he was asked for twenty-five dollars towards helping to build a parsonage, and he finally found he was giving the church more than he gave his family. He nevertheless "hung on" for a time longer, or until one evening he went to prayer meeting and was asked to leave his office for a week and go and help and clear the grounds for a camp meeting. That was the last straw, and he rose up and said:

"Gentlemen, I'd like to go to heaven. I know you all. You are clever and obliging, and kind and tender, and it would be nice for all of us, as a congregation, to go together, but I've concluded to leave you and dodge in along with somebody from Detroit, Grand Rapids, or Lapeer. It's money, money, money, all the time, and if my wife should die, she'd have to go to heaven barefooted!"

The congregation seemed to realize that a free horse was being rode to death. They let up on the editor and pacified him. He even had a special tent assigned him at the camp meeting, and all was well.—*Ex.*

IDEAL AND REAL.—Plato said that all things existed in the ideal world before they were formed in the material world; that the ideal was the real, and the material the transitory. Aristotle said that if law governed the mass, it must also exist in the atom—that if deduction showed order and system, the same principle must prevail to the opposite or inductive end of the pole, and on these premises the philosopher founded his classification of the animal kingdom in order, genera and species.

LIFE is made up of little things. The greater misfortune troubles us least. A man will generally show more of his evil nature at the absence of a button off his shirt-bosom than at the loss of his finest horse, and will probably endure it less manfully. The field of experience is broad, and covers the world; but the most severe tests greet us first, and happy is he who can achieve the mastery over the things which are small, for he then is sure of the mastery over himself.

Any dog in good condition will easily make his five miles in progressing one; the youth may be equally prodigal, but the time will come, in every man's life, when he will feel that henceforward every mile must count one, in the straight and dusky pike-road toward the end.

Care for Daughters.

Would you show yourself really good to your daughters? Then be generous to them in a truer sense than that of heaping trinkets on their necks. Train them for independence first, and then labor to give it to them. Let them, as soon as ever they are grown up, have some little money, or means of making money, to be their own, and teach them how to deal with it, without needing every moment somebody to help them. Calculate what you give them or will bequeath to them, not, as is usually done, on the chances of their making a rich marriage, but on the probability of their remaining single, and according to the scale of living to which you have accustomed them. Suppress their luxury now if need be, but do not leave them with scarcely bare necessities hereafter, in striking contrast to their present home. Above all, help them to help themselves. Fit them to be able to add to their own means rather than to be forever pinching and economizing till their minds are narrowed and their hearts are sick. Give all the culture you can to every power which they may possess. If they should marry after all, they will be the happier and the better for it. If they should remain among the million of the unmarried, they will bless you in your grave, and say of you, what cannot be said of many a doting parent by his surviving child, "My father cared that I should be happy after his death as well as while I was his pet and his toy."

Marrying Without Love.

Many a young lady writes to say that she has had an advantageous offer of marriage. The man who has made it is of exemplary character; he is well off in this world's goods, is engaged in a profitable and reputable business, and there is no particular reason why she should not accept his proposal; but she does not love him. In our judgment that is reason enough. We do not believe in marriage without love. Respect is all very well, and that one should have anyway; but it does not take the place of affection. It is said that in such matches love comes after marriage. We have no doubt that it often does. But we think love should precede as well as follow matrimony. It is always liable to happen to one who has never loved. But suppose, subsequent to marriage, it is awakened for the first time in a wife, and the object happens to be other than the husband—what then? This is a contingency not pleasant to contemplate. No; if you do not love, then do not marry. Singleness is blessedness compared to marriage without affection. The conjugal yoke sits easy on the shoulders of love; but it is most galling without this one and only efficient support.

Fowls and Vegetables in the Olden Time.

To Asia, and probably India, where wild chickens yet abound under the designation of jungle fowl, the English owe their domestic poultry. The distribution of this useful bird is strangely irregular. Throughout the negro kingdoms of West Africa, for instance, fowls are plentiful, while in more civilized Abyssinia and Arabia they are comparatively scarce. Persia abounds in poultry, while in Turkey few domestic birds, except the sacred pigeons, are to be seen. To Asia, too, belong the fallow deer and the gorgeous peacock, while to her, also, we owe all our vegetables, with the brilliant exception of the potato. It is impossible to conceive the poverty, so far as vegetables were concerned, of the England that passed under the sway of Norman and Angevine kings. Some hardy varieties of the cabbage did indeed exist, and were supplemented by long forgotten herbs, which have since been deemed only suitable to the rabbit hutch. The peas and beans brought in by returning Crusaders were presently eked out by carrots; but down to the reign of Elizabeth the garden yielded little tribute to the kitchen in Britain.

GARDEN GATES.—We notice in many parts of the city that the gates of some of our prominent citizens are in such poor repair that it often requires a young lady on one side and a gentleman on the other to hold them up. We would suggest that on these damp evenings it would be a far better idea to take the gate into the parlor and hold it up there.—*Taunton Gazette.*

BORROWERS.—There is a man in Nebraska who isn't being worried to death by people who want to borrow his wheelbarrow. His farm is six miles square, and his house is set three miles back from the road.

VIRTUE.—Sulphuret of silver is imbedded in the solid quartz, and the shining metal is only brought forth after much labor; so the virtue of a people is only made apparent by their struggles with adversity.

ARTISTS.—Susan B. Anthony says that there are 600,000 professional drunkards in the United States, and that one woman in seventeen is married to such an artist. She would never do it herself, though.

THE heart of man is like a garden—capable of producing, under good culture, everything beautiful in humanity, while if neglected, it is choked up with every kind of rank and poisonous weeds.

Old Dutch Proverbs.

We must row with the oars we have; and as we cannot order the wind we are obliged to sail with the wind that God gives.

Patience and attention will bring us far. If the cat watches long enough at the mouse nest, the mouse shall not escape.

Perseverance will obtain good cabbage and lettuce where otherwise nothing but thistles will grow.

The plowman must go up and down, and whatever else may be done, there is no other but this long way to do the work well.

Learn to sleep with one eye open. As soon as the chicken goes to roost, it is a good time for the fox.

If weary with waking, your portion will soon be meager.

Fools will always ask what time it is, but wise men know their time.

Grind while the wind is fair, and if you neglect, do not complain of God's providence.

God gives feed to every bird, but he does not bring it to the nest; in like manner he gives us our daily bread, but by means of our daily work.

Rise early, then the fisherman finds his worms.

The dawn of the day has gold in its mouth. He that lags behind in a road that many are driving always will be in a cloud of dust.

CORRECT SPEAKING.—We advise all young people to acquire the habit of correct speaking and writing, and to abandon as early as possible any use of slang words or phrases. The longer you live, the more difficult the acquirement of correct language will be; and if the golden age of youth, the proper season for the acquisition of language, be passed in abuse, the unfortunate victim, if neglected, is very properly doomed to talk slang for life. Money is unnecessary to procure this education. Every man has it in his power. He has merely to use the language which he reads, instead of the slang which he hears; to form his tastes from the best speakers and poets in the country; to treasure up choice phrases in his memory and habituate himself to their use, avoiding at the same time that pedantic precision and bombast which shows the weakness of vain ambition, rather than the polish of an educated man.

NEWS FROM ABROAD.—*Nature*, a weekly journal of science published in London, contains a lecture delivered at the London Zoological Gardens, by J. C. Clarke, on sea lions and seals, in which the following accurate passage occurs: The next species is Steller's sea lion (*O. Stelleri*), named in honor of its discoverer. It is much larger than the other species, the males being as much as sixteen feet long. The ears are short and pointed, much broader than those of the fur seal. It is found on the island of St. Paul, extending down the coasts of Kamtschatka and California. At San Francisco it inhabits an island in the harbor, where Mr. Woodford has built a large hotel, to which parties resort to dine and look at the sea lions play. The under fur of this species is so short as to be useless for clothing purposes.

GIRLS, let us tell you a stubborn truth. No young woman ever looked so well to a sensible man, as when dressed in neat, plain, modest attire, without a single ornament about her person. She looks then as though she possessed worth in herself, and needed no artificial rigging to enhance her value. If a young woman would spend as much time in cultivating her temper, and cherishing kindness, meekness, gentleness, mercy and other qualities, as most of them do in extra dress and ornaments to increase their personal charms, she would, at a glance, be known among a thousand. Her character would be read in her countenance.

No man can do an unmanly thing without inflicting an injury on the whole human race. No man can say, "I can do as I choose, and it will be nobody's business!" Every man's sin is everybody's business literally. Every sin shakes men's confidence in men, and becomes, whatever its origin, the enemy of mankind; and all mankind have a right to make common cause in its extermination.

THERE is a horrible picturesqueness in the reported discovery of the body of John Blackford, the American actor, who lost his life three years ago in attempting the ascent of Mont Blanc. It was found in a huge block of ice which lately fell from the mountain, perfectly preserved, like a fly in amber.

As the ships comes across the seas from foreign lands, bearing their rich freightage of silks, and spices and precious things, so do the days come to us—vessels from heaven's ports, full of the richest and rarest blessings and treasure from the heavenly lands.

MALE convicts in our jails and prisons constantly receive letters and visits from their wives, but when a female convict receives a letter from her husband, the circumstance is mentioned as remarkable, it is so rare.

DEATH.—The fear of approaching death, which in youth we imagine must cause much inquietude, to the aged is very seldom the source of uneasiness.—*Haslitt*.

SIX Milwaukee women agreed to decide by vote which had the handsomest baby. Each baby got one vote.



How Three Young Men got a Start in Life.

YOUNG FOLKS' COLUMN.

Work for it.

Boys want to be rich, great, or good, without working for it. They think that learned, wealthy, and influential men are very fortunate—that they have easily slipped into their respective spheres. They scarcely ever think that by hard work and dint of perseverance most of these men have risen to their present positions. Idlers never rise in the world. God does not reward laziness by "riches and honor." God did not make man to be useless and live at ease and reap without sowing. When farmers can sow and reap on the same day, and trees blossom and yield fruit the same day, and not until then, can boys hope to become men of marked influence and acquisition without working for it.

A splendid carriage rolls along the street. Boys look at it, and say to themselves, "He's a fortunate man: what an easy time he has! Some day we may have a windfall and not be obliged to work for a living." They scarcely dream that the occupant of that costly vehicle was probably once a poor boy, who worked hard many years, winning the confidence of all around him by his industry, integrity and noble bearing. Had he been as idle and loose as many boys are, he would not have owned the carriage nor have been a millionaire. Many years of earnest toil, struggling to overcome obstacles, practicing the most rigid economy, and bravely holding out against great discouragements is the secret of his success.

Daniel Webster could make a great speech. Boys heard him, and said, "What a gift! How fortunate he is to possess such talents!" The thought hardly entered their heads that hard work enabled him to do it. The first time he undertook to declaim in a school room he broke down. But persevering industry overcame all obstacles. By hard study year after year, and equally diligent practice, he became the distinguished orator. Take away a quarter of a century from his life, in which he carefully qualified himself for his profession, having no idle hours, and no "bed of down," and the world would have not known Daniel Webster. Boys should not forget this. He could make a great speech because he worked for it.

Boys, it is a good rule that nothing valuable in this world can be had without working for it. And the time to begin work is now.—*Ex.*

I'LL TRY, SIR.—We have stood on the frowning heights of Chippewa, and viewed, with national pride, the field of that sanguinary conflict. But most vivid amidst all the associations of the place—of more grandeur than the roaring cannon or the desperate charges of the contending armies—was the reply of the gallant Miller when asked if he could take a certain battery. "I'll try, sir!" said the brave young officer. He did try, and his efforts crowned with success the results of the day. "I'll try!" Noble motto, that. Let it be engraven in letters of gold on every young man's brow. How many need its inspiring influence, its grand philosophy! "I'll try!" said Simpson, as he worked at the weaver's loom, and he became the greatest mathematician of the day. "I, too, will try," said Robert Bruce, as he lay despairing on the road to kingly destiny, and beheld a spider, after repeated failures, at last attain its desired success. He tried, and the crown of Scotland was the result. "I'll try!" is the motto of all others.—*Journal of Trade.*

A JOLLY GAME.—"Blowing cotton" is a sitting room game of the jolliest sort. Let as many as may be sit around the table with hands folded and arms extended along the edge of the table, each person touching elbows with his neighbor on each side of him. Take a small piece of common cotton batting, picked up so as to be made as light and airy as possible. Put this in the center of the table. Let some one count "one, two, three," and then let each one blow his best to keep the cotton away from himself and drive it upon some one else. The person on whom it alights must pay a forfeit. No one must take up his arms to escape the cotton. When it alights, take it up and start anew. It will be a very sober set indeed who can play two or three rounds without indulging in the healthiest sort of uproarious laughter.

A SWEET ANSWER.—A little boy and girl, each five years old, were playing by the roadside. The little boy became angry at something, and struck his playmate a sharp blow on the cheek, whereupon she sat down and began to cry.

The boy stood looking on a minute, and then said, "I didn't mean to hurt you, Katie. I am sorry."

The little girl's face brightened instantly. The sobs were hushed, and she said, "Well, if you are sorry, it don't hurt me."

GOOD HEALTH.

A New Medicinal Plant.

A Brazilian plant bearing the savage name of "Jaborandi" appears to be the coming drug. It was first introduced into Europe about one year ago, but has grown rapidly in estimation with the medical fraternity since that time, so much so that the English wholesale drug houses are ordering immense quantities of it from Pernambuco, near which port it abounds. It is a shrub which grows about five feet high, with a cylindrical, tapering root, very sparingly branched, the bark of a pale yellowish color and very brittle.

Experiments with the drug suggest a curious relation, partly of analogy but mainly of opposition, between jaborandi and belladonna. It resembles atropia in quickening the pulse, flushing the face, and exerting a more decided influence on adults than on children. On the other hand, it is diametrically opposed to atropia in its actions on the salivary, sudoral, and mammary secretions, on the pupil, and on the minute arteries. Further, the tendency of belladonna to cause delirium contrasts with that of jaborandi to cause prostration and sleepiness. It has been proved that atropia is able to arrest the flow of saliva caused by jaborandi; and Ringer found that a dose of the latter drug speedily removed the dryness of the mouth in a case of accidental poisoning by atropia. Sweating after jaborandi may be prevented or checked by the subcutaneous injection of one-hundredth of a grain of atropia.

As a sudorific the drug is likely to prove of great value. It may also turn out to be a trustworthy antidote in poisoning by belladonna; and other virtues, unsuspected as yet, may be found to exist in the plant when it becomes better known. Hence pharmaceutical, medicinal, and chemical investigators are turning their attention to jaborandi. Dr. Ringer and some of his associates at the London University College hospital have been experimenting with the medicine therapeutically. To adults they have administered doses of from sixty to ninety grains in the form of infusion, and in nearly all cases profuse perspiration and most enormous salivation ensued very rapidly. The saliva collected from the patients averaged about an Imperial pint, and in one instance amounted to twenty-seven fluid ounces. Evidently the medicine is possessed of very important properties, and it now becomes a question of considerable interest to ascertain the precise principle of the plant to which these effects are due. Several chemists are working at the subject, and this doubt will therefore probably be soon cleared up.

Don't Eat Mathematically.

Persons in good health should not eat any article of food simply because it is "healthy," nor avoid any article because some one says it is "unhealthy;" nature's instincts are a better and safer guide, for she craves food, the distinctive elements of which are needed in the system; hence no man's likes or dislikes of an article of diet should be the guide of another, any more than all soils should require the same fertilizer, in quality and quantity.

Sometimes, indeed—but rarely in good health—a man may crave earnestly an article of food, and after eating it feel uncomfortable; yet, rather than conclude it did not agree with him, and discard it, a smaller quantity should be taken next time, and very often that smaller quantity, well divided, prepared properly and eaten slowly will "agree" simply because the system needed only that smaller quantity.

Brown bread is said to be good for many persons by its keeping the system open and free; but if a man is well enough in that respect, he would do well not to eat brown bread, unless he was fond of it, so as to have it to fall back upon, should he need its medicinal effect. In short, eat according to the natural appetite as to quantity and quality, and not according to artificial rules and regulations.

If a man is an invalid and has a family physician, it is safer and better to put himself under that physician's guidance; if he has no physician, let him feel his own way, taking small quantities at regular intervals, and closely observe the effects. But for both sick and well, it is just as unwise to measure and weigh each meal day after day, as it would be to wear the same amount of clothing and consume the same amount of fuel every day in the year, winter and summer. In mature life we eat for two reasons, to repair wastes and to keep the body warm; the wastes are in proportion to the preceding exercise, and the internal warmth needed is in proportion to the temperature of the atmosphere about the body. If you eat to-day while idle, and the thermometer is at sixty, as much as you did yesterday, when it was at zero, and you worked hard, you will certainly be sick to-morrow. After all, don't make a god of your belly, but accustom yourself to think of eating and what you shall eat, only when the time for eating comes; a beast or a glutton may do otherwise, a man will not.—*Hall's Journal.*

DOMESTIC ECONOMY.

Summer Salad.

At our leading hotels and restaurants, indeed on the tables of the distinguished, it is very rare, says the *German Town Telegraph*, to find lettuce, as a salad, worthy of the name. Green and bitter, by the aid of mustard, eggs, oil, or occasionally a scald, it is rendered just palatable, but as unlike what cool delicious salad ought to be as is possible. It seems practically to be forgotten by those who grow salad that lettuce was never intended to be eaten unless blanched. In Europe they grow a long broad-leaved kind, called the Roman or Cos lettuce, which, after having attained considerable development, has the leaves drawn up and tied together at the top. The interior continuing to grow, and of course in the dark, by the tying up of the outer leaves, makes a hard mass like an elongated cabbage, which cuts up as white and crisp and sweet as a stick of celery. This kind has never found a place in American gardens, because our climate induces it to run to seed too quickly. The various kinds of cabbage lettuce are preferred, because they close in their leaves naturally, and are supposed to blanch themselves. But this is, as we have shown, a pleasant fiction, as there is very little of the white about any that we see, except where there is great care in the culture.

Of course our country is not so well adapted to the growth of good lettuce as England is. It will not stand extreme cold, nor does it like warm days and hot suns. It wants to go to seed as soon as the temperature goes over sixty-five degrees. But we could have much better than we do. In the spring we sometimes get a tolerable article. Started by a little protection from frames, it is brought to perfection before the warm weather comes. To have it good later is not difficult, by employing very rich land and as cool a spot as can be obtained. All vegetables that we value for their succulence require a rich soil to their best development, but it is an essential to good summer lettuce.

Of course varieties will assist. Some of American origin have been found to stand our heats without running to seed much better than the English varieties, which are better suited to that cooler summer climate. Of these the Indian lettuces are examples. Some of these have been improved, and of these the Hanson bears a good reputation.

COOKING RHUBARB.—Rhubarb is best cut in lengths, boiled in water and sugar and served with boiled rice round the dish; or, it may be treated like "gooseberry fool." A little good cream gives it a delicate taste, which it never has in a pudding or tart. The following are excellent recipes for making rhubarb jam and marmalade: Cut the rhubarb as if for tarts, and to every quart give one pound of good moist sugar; put the sugar over the rhubarb and leave it twenty-four hours to draw out the juice. By this method the pieces of rhubarb remain separate from each other when the preserve is done. It keeps good a year if kept in jars well dried, and in a dry place. For the marmalade procure six oranges, peel them and take away the white rind and pips, then slice the pulp into a stewpan along with the peel; cut very small; add thereto one quart of rhubarb cut finely, and from one pound to one pound and a half of sugar. Boil the whole down in the usual way as for other preserves. Made in this manner it is nearly equal to Scotch marmalade, which is regarded on all hands to be the finest anywhere made.

DRINK MILK AND GROW FAT.—Livingstone found that in Africa the use of sour milk promoted the growth of the muscle and fatty matters, and it also appeared to be a preventive of biliousness, while sweet milk had the opposite effect. It is stated that a pinch of salt in sweet milk will prevent any disordered stomach, drowsiness or other ailment, and that if any one wishes to grow fleshy, a pint, slightly salted, taken before retiring at night, will soon cover the scrawniest bones. In cases of fever and summer complaint milk is now given with excellent results. The idea that milk is "feverish" has exploded, and it is now the physician's great reliance in bringing through typhoid patients, or those in too low state to be nourished by solid food.

SARATOGA POTATOES.—The following is said to be all there is of the cook's secret in producing those world-renowned potatoes served at Moon's Lake House, Saratoga Springs, every summer: Peel good sized potatoes, and slice them as evenly as possible; drop them into ice water. Have a kettle of lard, as for fried cakes, and very hot. Put a few at a time into a towel, shake them about to dry them, and then drop into the hot lard. Stir them occasionally; and when of a light brown take them out with a skimmer. If properly done, they will not be at all greasy, but crisp without, and mealy within.

ASPARAGUS AND BEANS.—Cut the tender parts of the asparagus into quarter inch lengths, boil in an equal quantity of water, adding about an equal amount of well cooked Lima beans. Cook until the asparagus is tender, and serve warm. Instead of the beans the asparagus may be thickened with flour or with cracker crumbs.



PUBLISHED BY
DEWEY & CO.
A. T. DEWEY, W. B. EWER, G. H. STRONG, J. L. BOONE
PRINCIPAL EDITOR.....W. B. EWER, A. M.

Office, No. 224 Sansome street, Southeast corner of California street, where friends and patrons are invited to our SCIENTIFIC PRESS, Patent Agency, Engraving and Printing establishment.

SUBSCRIPTIONS payable in advance—For one year, \$4; six months, \$2.25; three months, \$1.25. Remittances by registered letters or P. O. orders at our risk.
ADVERTISING RATES.—1 week, 1 month, 3 months, 1 year
Per line.....25 .80 \$2.00 \$5.00
One-half inch.....1.00 \$3.00 \$7.50 24.00
One inch.....2.00 5.00 14.00 40.00

Large advertisements at favorable rates. Special or reading notices, legal advertisements, notices appearing in extraordinary type or in particular parts of the paper, inserted at special rates.

No Quack Advertisements inserted in these columns.

SAN FRANCISCO:
Saturday, June 26, 1875.

TABLE OF CONTENTS.

GENERAL EDITORIALS.—Colorado Scenery; Australian Lemons; The Tuolumne Re-union, 417. A Word for Good Pork; Commence with the New Volume; General Capron's Report; Not so Bad as Expected; The Tarantula; Our Closing Volume; Political, 424.

ILLUSTRATIONS.—Whiterock Peak, 417. Pomare, Queen of Tahiti, 425. Improved Window Sash, 427.

CORRESPONDENCE.—Mountain and Foothill Fruit Lands in Santa Clara Valley; The Storm at Grangeville—Grasshopper Parasite; Azusa, Los Angeles County; Notes from Sacramento County; The Storm at Rio Vista, 418. A Word for the Yellow Jackets; The Storm at Santa Rosa; Among the Hop Growers, 419.

SHEEP AND WOOL.—Sheep Raising; Eastern Wool Market, 419.

THE VINEYARD.—Convention of Grape Growers, 419.

PATRONS OF HUSBANDRY.—The California Farmers' Mutual Fire Insurance Company; "Under Grange Colors"; Grange Items; Co-operative Stores; The Grange Room; In Memoriam; Inkillings from the Country; From the Granges, 420. Grange Decisions; Pomona Granges, 421.

AGRICULTURAL NOTES from various countries in California, 421.

HOME CIRCLE.—How Will It Be (Poetry); Professional Training Schools for Girls; Choosing a Mate; Apologies Not Needed; Going to Heaven Barfooted; Ideal and Real; Care for Daughters; Marrying Without Love; Poultry and Vegetables in the Olden Time; Garden Gates; Borrowers; Virtue; Artists, 422. Old Dutch Proverbs; Correct Speaking; News from Abroad, 423.

YOUNG FOLKS' COLUMN.—Work for It; I'll Try, Sir; A Jolly Game; A Sweet Answer, 423.

GOOD HEALTH.—A New Medicinal Plant; Don't Eat Mathematically, 423.

DOMESTIC ECONOMY.—Summer Salad; Cooking Rhubarb; Drink Milk and Grow Fat; Saratoga Potatoes; Asparagus and Beans, 423.

MISCELLANEOUS.—Tahiti; Fixed Principles in Agriculture; The Workingman in Massachusetts; To Judge of the Quality of Leather, 425. Anti-Monopoly Association; Box Measures; Potatoes on Rich Soil; American Tea; Hand Lathes; Pottery in the United States; A New Carriage Wheel for the Road; Fig Coffee; The Cold Steam Motor; Repairing Rubbers; Copying Manuscript; To Fit a Key; Rapid Work, 426. Certain Local Advantages for Immigrants; What Becomes of Drift Coal; Railway Progress; Disease Proof Potatoes, 427. Grange Directory; Don't be Troubled; Outlook Work for the Grange, 428.

OVER ELEVEN THOUSAND COPIES OF "RURAL PRESS."

We print over 11,000 copies of our 24-page sheet to-day. An extra copy will be addressed individually to all the officers of each Grange in the States of California and Nevada. Our double sheet issue makes it the largest agricultural weekly issued on the continent. It is the best on this side. We strive to make it superior in all respects. In no other section of the Union is a first-class farming paper so essential and desirable to agriculturists as in this new and rapidly developing field. The RURAL contains more fresh facts about home farming than any one of its contemporaries. We solicit correspondence from all farmers and reliable and intelligent writers. We invite all farmers to subscribe for the RURAL PRESS. Our terms are in advance, and we guarantee that every subscriber shall find the worth of his money in our next volume. We shall give a double sheet issue monthly for the present.

ADVERTISEMENTS have crowded upon our space this week, which, in connection with the index, entails the amount and variety of reading in the present issue. We shall hereafter issue double sheets often enough to give our subscribers a very liberal amount of reading.

A Word for Good Pork.

We wish to put forth a few suggestions on the subject of pork. This always has been, and probably will continue to be, the leading meat in American diet; not from necessity, as some evidently suppose, but from choice, as many thousands happen to know. And though England may be disgusted at our stupidity in not adopting roast beef to the exclusion of all other meats, we shall probably adhere to our old practices; and though the newspaper philosopher disturbs us at our quiet meal of pork and beans, or "a streak of fat and streak of lean" of corn fed, pickled pork, by crowding upon our attention his paragraph about trichina, we shall not even turn the dinner tables on them, as we might, by proving that the chicken and duck which this new fledged philosophy has taken under its wing, are more filthy in their habits than the pig.

Pork producing has enriched the districts that have given it proper attention, and will add greatly to the wealth of California when we arrive at that period when we shall raise even enough for home consumption. There are at present special reasons why we should increase this product. We could not afford to produce so little pork and purchase so much, even at former prices; and now with the prospect of an immediate and somewhat permanent scarcity, we should begin at once to increase our home supply. Kansas and Nebraska will be deficient in their pork product, probably for two years at least. Other quarters have not furnished their quota of this product for two years past. Prices in Chicago are ruling high. In April hogs were selling at five cents per pound, live weight, now they are seven cents. Scarcity and high prices whet the appetite, and people do not properly appreciate products as long as they have them in abundance; and it is quite in the nature of things to expect an increase of consumption to follow this decrease in supply.

The hog business is largely increasing in Southern California, and in a less degree in other portions of the State; and we claim that the important change of substituting light for heavy pork was inaugurated here. This improvement is being adopted by the pork growers in all parts of the United States; and smaller breeds of hogs, to be slaughtered at an early age, are now in general demand.

We have also demonstrated another important point in American pork production; namely, that first-class pork can be produced without corn; so that this product need not necessarily be confined to those districts favorable to corn culture. Wherever barley can be grown hogs can be fattened economically.

O. S. Abbott, of Santa Barbara, informs us that five pounds of barley should make one pound of pork if fed to the unenclosed animal; if fed on floor bottom it should take only four pounds. Thus pork at five cents is equivalent to barley at one cent. Barley can be fed from the stack or as it stands in the field, thus saving reaping the straw and sacking.

It should be borne in mind that the climate of California favors the steady growth and rapid fattening of animals, there being no setback in winter, and the debilitating effects of the summers of other sections of country being unknown here. This climatic advantage has done much toward making the beef produced here of superior quality, and, no doubt, affects our pork in a similar manner. Barley fed pork is in high favor with those who have eaten it, and it is said that there are no better hams than those from hogs thus fed.

If we can do anything toward increasing the pork product of California and giving a definite form to the market for it, we shall be conscious of having served the interests of the State thereby. The co-operation of our correspondents is requested in working out these points. Kelsey Brothers, near Saticoy, Ventura county, are extensively engaged in swine growing, and we would accept any facts or suggestions from them on this subject as a special favor. The invitation, should, however, be considered as a general one.

Commence with the New Volume.

Volume X of the PACIFIC RURAL PRESS commences with the first week in July. We ask every farmer on the coast not already on the list to give us his subscription at once. The RURAL PRESS is a power of good, at home and abroad, and its influence should be extended. The next six months will be a season when its information will be particularly valuable to its readers. We are living in active, progressive times, and every farmer should be posted on the prices of produce and the best methods of producing and disposing of crops. Subscribe at once. If you can get up a club for us, all the better. It will pay you to help the paper. Don't wait for others to act.

THE STATE FAIR AND THE RAILROAD.—It will be of interest to our readers to know that the Central Pacific railroad has decided on a reduction to half fare rates during the holding of the fair of the State Agricultural Society at Sacramento, commencing September 15th.

General Capron's Report.

In the notice of the Japanese agricultural mission in our last week's issue allusion was made to the forthcoming report of General Capron, the head of the late Colonization Bureau. We have the satisfaction of announcing that a handsomely bound volume has already been placed upon our table by order of our esteemed friend, the author. It was published in Japan, fifty copies only being issued, which were brought to San Francisco by General Capron and were bound at the establishment of Bancroft & Co. Only three copies remain on this coast; one presented to the Japanese Consul, one reserved for the Pacific Coast library and the one in our possession.

The book is entitled "The Reports of Horace Capron and His Foreign Mission." It is of the size and style of the Department of Agriculture Reports, containing 750 pages, with many valuable maps, charts, tables, etc. We shall draw on its contents occasionally in order to inform our readers of the plans and workings of the important scheme with which it is connected.

General Capron took leave of California at an earlier date than he had originally designed; leaving here on Friday morning, June 18th. His address for the present will be Washington, D. C.

Not so Bad as Expected.

At the time of our last issue the outlook for the grain and grass crops of the season was extremely discouraging. The condition of dry feed is found to be quite as bad as was generally estimated at the close of the late storm, and the loss to the country from this source will be great; but the hay crop is, in some localities, improved by the rain. In regard to the grain crop we are happy to state that the prospect has greatly improved during the last week. The grain in stacks was not wet to a sufficient depth to cause injury by heating, and it is thought that the loss from threshing out by the wind will be, in a measure, compensated by seeding for a volunteer crop.

The aspect of the fruit crop shows no material change; the grape crop, however, is even more promising than was stated last week. An unprecedented yield is anticipated.

Corn has been greatly benefited by the rain; potatoes, tobacco, hops, sugar beets and garden vegetables will also be greatly improved.

Farmers are in some instances taking advantage of the condition of the soil to commence plowing for second crops; and taking it all in all it is at least a question whether the country has not been benefited rather than injured by this unusual storm.

THE editorial excursion party recently mentioned, will leave New York about the first of July. H. T. Williams, editor and publisher of the New York Horticultural Magazine, is the managing secretary. Over seventy names were on the list at the date of our last advice. E. X. Willard, editor of the dairy department of Moore's Rural New Yorker; Clark W. Bryan, of the Springfield, Mass., Daily Union, and other eminent representatives of the press are among the number. They will visit a few of the wonderful places in California usually examined by tourists; but as observation and information in regard to our natural and improved resources is the main object of the visit of the company, it is desirable that individuals and associations connected with places of interest for the party to visit, should communicate with the editors of the RURAL PRESS, or write to H. T. Williams, box 2361, San Francisco. The influence of this excursion will doubtless be more wide spread than that of any other that has visited California.

Individuals and neighborhoods largely devoted to agricultural specialties, whether in fields, fruit or vines, who would be pleased to have the entire party or the principal members thereof visit their respective localities, will do well to communicate their wishes either to this office or to the secretary of the party, as above, and thus secure a place on the programme of their visits, which will be definitely made up as soon as possible after their arrival. The party leaves New York, July 1st.

We bespeak for them the freedom of the State, and a hearty welcome wherever they go.

NEW CHURCH MUSIC.—We have received from A. L. Bancroft & Co., a small volume of church music, entitled "Excelsior," consisting of a choice collection of tunes, anthems and chants, for the use of congregations, choirs and singing classes. This collection has been prepared by Prof. G. W. Linton, author of several valuable publications of this kind. A large number of tunes in the volume were written by Prof. Linton. This is the first book of the kind which has been printed on the Pacific coast. Price, \$1 per copy.

ON FILE.—"Husband and Wife in Kansas," C. I. H. N.; "Notes from Fresno County," J. W. A. W.; "Our Beautiful Sanjans," L. B. C.; "Letter from Mud Springs," I. B.; "School Reform," T. S.; "What are They?" G. W. M.; "From Old Creek," C. S. C.; "Washing Machines Again," C. M.; "Enquiry about Calves," J. R. M.; "Australian Gum," Subscriber; "Effects of the Rain" and "Grangers' Fourth of July," G. B.; "Water Gardens," J. C. C.

The Tarantula.

Information has been required of us concerning the tarantula of Southern California. It is a species of spider, but does not construct a web to catch its prey. It lives on the ground, generally under cover of logs, stones, etc., lying in wait for its prey, and sometimes going abroad in search of it, which having secured, it rushes back to its holes. Its bite is extremely venomous, causing immediate and acute pain, and is said to be quite as dangerous as the bite of the rattlesnake. Its range is not confined to Southern California; we have seen them in the foothills of Nevada county. It is not aggressive in its habits, only so far as hunger prompts, and its food being insects, it will not attack man or other animals, and the danger lies principally in making war upon them, or in disturbing them by inadvertently moving the things under which they are hidden, when they exhibit extreme courage and ferocity. Being few in number, not aggressive but retiring, their presence should not be considered an objectionable feature in a country. As insectivorous animals they probably do more good than harm in the places frequented by them.

Our Closing Volume.

The present number closes the Ninth Volume of the PACIFIC RURAL PRESS. Whether we have succeeded in making it worthy of the position which the paper holds as "the leading agricultural paper on the Pacific coast" we leave its readers to judge. To our thousands of patrons we tender our hearty thanks; and we assure those who have contributed to its contents that their services are as highly appreciated by us as they undoubtedly are by the readers of the Press. Our intercourse with our numerous correspondents has been as pleasant as it has been advantageous to the paper; and we hope it is not presuming too much on the good nature of our contributing friends when we promise a continuation of these favors through succeeding volumes.

The tenth volume of our paper opens under even more favorable auspices than its predecessors, and we guarantee that there shall at least be no falling off in the merits of the PACIFIC RURAL PRESS.

Political.

The Independents, in convention at Sacramento, on the 23d inst., nominated General John Bidwell, of Butte county, for Governor, and the present Governor, Romualdo Pacheco, of San Luis Obispo, for Lieutenant Governor. The rest of the ticket is made up as follows: Secretary of State, W. Roush, of Placer; Controller, W. Kontz, of Sierra; Treasurer, F. Baehr, of Shasta; Attorney General, Peter Van Clief, of Yuba.

The Republicans in convention on the 11th inst., nominated for Governor, T. Gny Phelps; Lieutenant Governor, J. M. Cavis; Secretary of State, Edmund Hallet; Controller, James S. Groen; Surveyor General, Robert Gardiner; Treasurer, Wm. Bockman; Attorney General, E. D. Sawyer; Clerk of the Supreme Court, Grant I. Taggart; Superintendent Public Instruction, E. S. Carr.

The Democrats are to next nominate a ticket. Our people will have plenty of names from which to choose upon whom to bestow their suffrage at the election next fall.

PRICE'S WINDOW SASH.—We give on page 427 of this issue an illustration and description of a new style of window sash, which is quite an improvement over the old style sashes. To those reading the description, it is evident that the opposite cord of the top sash can be conducted to the sliding weight by means of pulleys so desired; and that the pulleys may also be constructed so as to connect with the sliding weight, if the sliding weight is constructed in a recess on one side of the window frame, or in any part of the building desired. By this means any objection to having the vertical slotted plate on the casing can readily be overcome, as a recess can be constructed in the wall alongside of the frame, and the lifting weight will slide therein.

INTERNATIONAL SEED POSTAGE.—For the benefit of those who may wish to order or to send seed through the postoffice to Canada, we would state that our international postal arrangements enable the sending of seed parcels throughout the dominion of Canada and United States of America, at the rate of one cent for two ounces, (8 cents per pound.)—prepaid postage.

REMOVAL.—Mr. R. J. Trumbull has removed his seed warehouse to Nos. 419 and 421 Sansome street, a few doors south of his old stand. Mr. Trumbull is expanding his business to an extent corresponding with his enlarged accommodations, and among other improvements will have a department of growing plants, cut flowers, etc.

THE FIRST OF THE SEASON.—We received by express June 23d a fine, large, ripe watermelon, sent to the office of the Press by A. Hamm, of Knight's Ferry. Mr. H. has our thanks.

DOUBLE SHEET.—24 PAGES.

Tahiti.

The Island and its Sovereign.

Tahiti, the principal of the Society islands, possesses a growing interest to San Francisco people, and anything touching on the history and present condition of the group of which it is the chief, will no doubt be well received by our readers.

From some cause or other—probably from various causes—this generation is disposed to look upon semi-barbarism with increased interest, if not with downright respect. Possibly the conviction has been forced upon the public mind by the detractors of "the period" that we are rapidly wending our way back to barbarism, and a desire is very naturally awakened to become somewhat acquainted with our new associations in the social world to which we are tending. And if we should have to dispense with "the women of the period" we shall know from what source we can obtain a fresh stock. It is at last evident that an exchange in manners and customs might be effected between this and still more barbarous countries, the mutual advantage arising therefrom being as great as that which comes from an exchange of the material products of the countries.

The Society islands are situated between latitude 16° and 18° south, and longitude 143° and 152° east. They are of volcanic origin and thirteen in number: Tahiti or Otahite, Eimo, Matia, Marohite, Tetuaroa, Huahine, Raiatea, Oahu, Borabora, Marna, Tubai, Sully Island and Lord Howe's Island. Tahiti was first visited in 1706, by Quiros, a Spanish navigator. It was visited by Captain Cook in 1769, in company with Sir Joseph Banks, the eminent English naturalists and an efficient scientific corps for the purpose of observing the transit of the planet Venus across the sun. In 1788 the *Bounty* called at Tahiti, for the purpose of procuring a supply of bread fruit to be taken to the West Indies. Shortly afterwards the mutiny occurred which has rendered her name memorable. In 1797 a party of English missionaries landed on the island. They met with varying success until 1816, when Pomare II, the reigning chief or king, embraced christianity. His example was quickly followed by his subjects, and the missionaries soon obtained a large temporal as well as spiritual influence among the natives. Pomare II died in 1821, and was succeeded by his young son, who did not live to obtain his majority. He was succeeded by Aimata, or Pomare, the present queen, an engraving of whom appears on this page. During the early part of Queen Pomare's reign, a collision occurred between the natives and a body of Catholic priests, who had come out from France to dispute the sovereignty of the islands with the Protestant brethren. The circumstance was seized upon by the French as a pretext for interference, and the islands were taken possession of by Louis Phillip in 1844. At this time Queen Pomare went into retirement on a neighboring island, but after a few months was called back, and has been recognized as sovereign since, though under French protection.

The natives are probably of Malay extraction; their complexion is of an olive or reddish brown. The men are vigorous and pleasing in their manners. The women are exceedingly graceful and many possess beauty of a rare type. The social condition of the Tahitians is not the best. Like the natives of other South Sea islands, contact with the Europeans has demoralized them in many respects. The measles and venereal diseases have made sad inroads into the population. Tattooing is now seldom practiced, and the native costume is generally abandoned for garbs approaching those seen in civilized communities.

The engraving which we present of Queen Pomare is from a sketch taken from life by M. Eugene Delessert, a French scientist, who visited Tahiti in 1847, three years after its occupation by the French. M. Delessert, in his "Voyage in Two Oceans," a volume published in Paris after his return in 1848, speaks in flattering terms of the pleasing manner and graceful, yet dignified bearing of Queen Pomare. She was at that time in the bloom of youth, and, although now quite well advanced in years, she has always held her position with ability, and still retains a well merited popularity with foreigners and is beloved and honored by her subjects.

The large and rapidly increasing commerce between Tahiti and San Francisco demands the attention of our people. We intend, in a future number, to devote further space to this subject, which we believe will prove to be of general interest.

It is asserted that there is in prison in Dublin a man who has been confined twenty-two years for contempt of court, he refusing or being unable to pay a fine of a few shillings.

Fixed Principles in Agriculture.

All lands on which clover or the grasses are grown, must either have lime and every other inorganic constituent which may be found in the ashes of the clover if burned, or those minerals must be artificially supplied. All permanent improvement of lands must look to lime, potash, and other constituents common to plants, as its basis. Lands which have been long in cultivation will be benefited by applications of phosphate of lime, treated with sulphuric acid, so as to render it a soluble phosphate; supplied in the form of bone dust, composts of fish, guano, ashes or oyster shell lime.

All highly concentrated animal manures are increased in value, and their benefits prolonged by admixture with plaster, salt, or pulverized charcoal. Deep plowing greatly improves the productive powers of every variety of soil that is not wet, though the depth should be increased gradually. Sub-soiling sound land, that is, land that is not wet, is eminently conducive to increased production. All wet land should be drained, and espe-

one-fourth less food will answer than when such stock are exposed to the inclemencies of the weather. A good dressing of plaster or clover, when the land is deficient in lime and sulphuric acid, will add one hundred per cent. to its produce. Periodical applications of ashes tend to keep up the integrity of soils, by supplying most, if not all the inorganic substances. Thorough preparation of land is absolutely necessary to the successful and luxuriant growth of crops. Abundant crops cannot be grown for a succession of years, unless care be taken to provide an equivalent for the substances carried off the land in the products grown thereon.

To preserve meadows in their productive-ness, it is better to harrow them every second autumn, apply top-dressing, and roll them. All stiff clays are benefited by fall and winter plowings, but should never be plowed while they are wet. If at such plowings the furrow be materially deepened, lime, marl or ashes should be applied. Young stock should be moderately fed with grain in the winter, and receive generous supplies of long provender, it being essential to keep them in a fair condition, in order that the formation of muscles



POMARE, QUEEN OF TAHITI.

cially such land as has a heavy clay sub-soil. All grain crops should be harvested before the grain is thoroughly ripe. Clover, as well as the other grasses intended for hay, should be mowed when in bloom. Sandy land can be most effectively improved by the addition of clay. When such lands require liming or marling, the lime or marl is most beneficially applied when made into compost with clay. In slacking lime, salt brine is better than water.

The grinding of grain to be fed to stock, and mixing it with cut hay or straw, operates as a saving of at least twenty-five per cent. Draining of wet lands and marshes adds to their value, by causing them to produce earlier and a greater quantity and better quality, and improves the health of neighborhoods.

To manure or lime wet land, is to throw manure, lime and labor away. Shallow plowing operates to impoverish the soil. By stabling and housing stock through the winter, a saving of one-fourth the food may be effected; that is,

and bones may be encouraged and continuously carried on. Milch cows in winter should be kept in dry, moderately warm, but well ventilated quarters, fed and watered three hours a day, salted twice a week, have clean beds, and in addition to their long provender should receive roots. Full complement of tools and implements of husbandry are intimately connected with success.—*National Agriculturist*.

It is estimated that only five per cent. of the butter sent to market is really choice. This means only five per cent. of farmers and of farmers' wives are neat and careful enough to make good butter. The loss sustained for want of those qualities may be rated at millions of dollars annually.

MARBLE is cleaned best with whiting moistened with a little water, just enough to make a paste. Wash off afterward with soap and water, dry and polish with a soft duster.

The Workingman in Massachusetts.

From the annual report of the Bureau of Statistics of Labor, in Massachusetts, we are enabled to obtain quite an insight into the condition of the workingman in that State. The report is interesting throughout, containing, as it does, numerous citations from the actual experience of individuals and families. We should like to give the report in full had we the space, but being somewhat restricted in this respect, we shall be content with quoting from the conclusions arrived at by the Chief of the Bureau, from the data in his possession:

Art of Living.

1. In the majority of cases, workingmen in this commonwealth do not support their families by their individual earnings alone. [This fact also appears in earlier reports.]

2. The amount of earnings contributed by wives, generally speaking, is so small that they would save more by staying at home than they gain by outside labor.

3. Fathers rely, or are forced to depend, upon their children for from one-quarter to one-sixth of the total family earnings.

4. Children under 15 years of age, supply, by their labor, from one-eighth to one-sixth of the total family earnings.

5. More than one-half of the families save money, less than one-tenth are in debt, and the remainder make both ends meet. [They are not the debtor but the creditor class.]

6. Without children's assistance, other things remaining equal, the majority of families would be in poverty or debt.

7. Savings, by families and fathers alone, are made in every branch of occupation investigated; but in only a few cases is there evidence of the possibility of acquiring a competence, and in those cases it would be the result of assisted or family labor.

8. The higher the income, generally speaking, the greater the saving actually and proportionally.

9. The average saving is about three per cent. of the earnings. "The recipient of a yearly wages of less than \$600 must get in debt."

Rents.

1. But an insignificant proportion of workingmen whose condition we investigated, are able to own their own houses. [4 out of 397.]

2. The families containing the greatest number of child workers occupy the most crowded rooms, and the interior class of tenements.

3. About three-quarters of these working-men's homes are in good condition as regards locality and needful sanitary provisions; but—

4. Nearly one-half of the unskilled laborers live in inferior tenements.

5. While the homes of these workingmen compare most favorably with those in foreign countries and other States of the Union, yet in certain of the United States workingmen have better opportunities for acquiring homes of their own.

Food.

1. The working classes of Massachusetts, judging from our investigations, are well fed.

2. Their food, in variety and quality, is above the average of that consumed in foreign countries, and that, as regards quantity of animal food used, their "higher level" is unquestionable.

Dress.

1. As far as the investigations extended, the workingmen are, on the average, well and comfortably clothed.

2. Their manner of dress is, at least, capable of the most favorable comparison with that in foreign countries.

3. Judging from the proportionate outlay for dress, as regards entire expenses, there is no evidence that our workingmen, in obedience to fashion, indulge in an excessive or disproportionate expenditure.

General Expenses.

1. From our investigations, we find no evidence or indication that workingmen spend large sums of money extravagantly or for bad habits.

2. A large proportion of skilled workmen have sewing and other labor saving machines in use in their families.

3. As evidence of material prosperity, to ascertain extent, significant numbers of the families (the aid of child labor being fully allowed) own pianos or cabinet organs and maintain pews in church.

"Of the 397 families, 11 per cent. have pianos or cabinet organs; 34 per cent. have sewing machines; 52 per cent. have one or more carpeted rooms; 26 per cent. paid rents for church pews."

We make no comments; but will ask our readers to examine these facts carefully and make their own deductions.

TO JUDGE OF THE QUALITY OF LEATHER.—M. Bitur gives the following means of recognizing the quality of leather: Leather not completely saturated with tannin will swell up under treatment with acids. If, however, the tannin has penetrated it thoroughly, no such effect is produced. Acetic acid is the acid recommended for this test.

Anti-Monopoly Association.

In our issue of May 29th we gave, in answer to inquiries, an account of the "Anti-Monopoly Association of the Pacific Coast," stating briefly the aims and purposes of the association with a promise to lay before our readers, as soon as practicable, the resolutions passed at the meeting held in San Francisco, December 7th, 1874. In accordance with this promise and in compliance with requests recently received, we here give the resolutions in full:

The two fur-seal islands, St. George and St. Paul, in the Territory of Alaska, were leased in the year 1870, by the government of the United States to the Alaska Commercial Company, surrendering by this act to the said company, the enormous resources and wealth of these islands, as well as the freedom of the civilized Aleuts and creoles inhabiting the same. The granting of a monopoly of trade, and the leasing of the service of christian communities to a mercantile corporation, is an open violation of the constitution of the United States, a flagrant breach of the settled policy of our country, and contrary to the spirit of a free and civilized government. That said lease was only effected through the most shameless lobbying, and through the corruptness of the administration, in the face of the protests of the entire American press, and in spite of the loud voice of the public. The Alaska Commercial Company, which is permitted by the terms of said lease to kill on said two islands 100,000 seals per annum, which are worth at London from \$10 to \$20 each, and for which the company pays to the natives of the islands 40 cents each, and to the government about \$300,000 as lease and taxes, is thus enabled to make a clear profit of about \$1,000,000 per annum. That said Alaska Commercial Company uses the overwhelming power which the possession of this enormous wealth gives it, to crush not only its rivals in the fur trade, but any enterprise—no matter of what nature—in the whole of the immense territory; throws every obstacle in the way of immigration, explorations, and even the expeditions of the United States Coast Survey; and discourages everything that may lead to the development and the better knowledge of the country; and has thus succeeded in forcing nearly every firm and individual that was engaged in the Territory, to abandon the same with severe loss, and has established a monopoly not only over said two islands, St. George and St. Paul, but over the whole Territory of Alaska. That all the prominent revenue officers, who held positions in Alaska, are now members or agents of said Alaska Commercial Company, while we are cognizant of the fact that private parties, not belonging to said monopoly, were continually submitted to serious annoyances, and the most unjust, unlawful and high-handed treatment by such federal officers, who have also often used their official position and authority to intimidate the natives, and represent to them the Alaska Commercial Company, or as they were formerly called, Hutchinson, K. & Co., as being invested with the same absolute power as was formerly the old Russian Company. That the civilized and christian Aleuts and creoles a notwithstanding the assurance of the Alaska Commercial Company that they are well treated and well cared for in a state of bondage and slavery, and entirely in the hands of said company; are completely shut off from any communication with the outside world, like a colony of convicts, (no person being allowed to land, nor any vessel being permitted to touch at said islands but those belonging to the Alaska Commercial Company); must be satisfied with the price of 40 cents per skin, which are worth at London from \$10 to \$20; and pay for the commodities of life what the company demands of them; and have nobody to appeal to for protection and justice but two government officers, in whom we have not the slightest confidence.

The touching petition of these inhabitants of St. George and St. Paul, signed by all the leading men, which was addressed to the President and Congress in the year 1872, had all the appearance of being genuine, but was declared a fabrication by the Alaska Commercial Company, and was not taken the slightest notice of by our government. That Alaska is a Territory of an immense area, with millions of acres adapted to agriculture and stock-raising, with many resources lying latent therein, with a climate equal to that of Europe, north of Belgium, with a wealth of timber, fish, furs, game and minerals, and with numbers of the best harbors of the world; a country in which hundreds of enterprises and branches of industry might flourish, which is capable of supporting a large population, and in which gold, copper, and coal await the development of the energetic miner and prospector, all of which is impossible under the present state of affairs. That the Territory of Alaska, under the oppressive rule of the Alaska Commercial Company, has been for seven years as good as worthless to the people of America, while it has put millions of dollars in the pockets of that company. That if the monopoly of the fur-seal islands would be abolished, there would immediately commence an era of activity and prosperity throughout the Territory; the \$3,000,000 worth of furs annually exported by the Alaska Commercial Company from Alaska, instead of being directly shipped to England, would be in the hands of many traders, would be sold in San Francisco, would raise the manufacturing of furs there to an unknown height, and would make that city a rival of London in the fur trade of the world, while such branches of industry as the canning of salmon, cod fishing, lumbering, shipbuilding and stock-raising, would engage a fleet of vessels alone, and give employment to thousands of men, which would give a tone to the trade of California and the market of its produce, which would be felt by every farmer, manufacturer and merchant. That we consider the islands of St. Paul and St. George, as well as the rest of Alaska Territory, as belonging to the people of the United States, and not to a few corrupt politicians and a handful of unscrupulous capitalists, and regard it as a crying wrong that a whole rich country should be kept in a state of wilderness, and its development checked for the sake of a greedy monopoly. That all the facts above set forth are a stain on our free republic, and place us in this respect below the nations of Europe, and are an injury and injustice to every producer or business man on the Pacific coast, and an insult to the people of America.

Resolved, That we, the undersigned, citizens of California, form ourselves into an association, to be called the "Anti-Monopoly Association of the Pacific Coast."

Resolved, That we demand the abolishing of the lease of the fur-seal islands, the deliverance of their inhabitants, and the equal right of every American citizen to trade with the same.

Resolved, That we condemn the policy of the government towards Alaska, as injurious, not only to said Territory, but to the whole Pacific coast, and discountenance the course of the federal officers in that country.

Resolved, That henceforth, we will only support and vote for such candidates for public office, who will pledge themselves against monopolies being granted, and serfdom being countenanced by the government, and who will uphold the constitution of the United States.

Resolved, That we will encourage and assist all enterprises and industry in the Territory of Alaska, and will especially lend our support to the scheme of establishing a colony of Icelanders in the same.

Resolved, That we are in favor of having the coasts of Alaska thoroughly surveyed; of having scientific investigations prosecuted, and that the government be requested to continue the surveys and explorations which have been carried on during the last three years by the U. S. Coast Survey.

Resolved, That we will do all in our power to break up the monopoly that oppresses the northwest coast of America, to relieve the enslaved Aleuts of St. Paul and St. George, and to open the Territory once more to the people of America.

Resolved, That we invite the co-operation and support of every citizen of the United States, in this cause, which we consider a matter concerning every patriot, and especially the citizens of the Pacific coast.

Following is a portion of the names signed to the resolutions and published with the circular of the Anti-Monopoly Association, December 7th, 1874. We give them in the order in which they occur:

A. A. Haselline, Steers & Colby, Howe & Hass, E. W. Dike, J. Burnap, J. A. Pendergast, E. Veasey, L. W. Johnston, L. F. Baker, J. R. Sweeney & Co., T. Bosse, David McKee, W. B. Sumner, Jacob Eberhard, Emil Loeven, Wm. H. Ennis, Geo. W. Chesley & Co., R. H. McElhinny, J. W. Gale, E. S. Thibet, A. J. Worth, Chas. Legee, J. C. Janson, A. Wulsen, B. Bendel & Co., I. Schirpser, A. R. Hynes, H. W. Schmidt, Samuel Friedlander, Henry Hagen, A. Stolz, F. Ernst, G. Wiss, T. Dohrmann, Chas. Lackeman, Emil Engelberg, D. W. Barkhaus, F. Hebrecht, W. Newman, T. H. Putzman, C. Martens, R. Baumgartner, C. Hartmann, John J. Riley, Henry A. Chase, T. C. Park, Joseph Martin, J. Robinson, Aug. Van Bergen, A. Duncker, R. Jansen, V. Nolte, L. Lempeke, Chas. Behlow, J. L. Koster, John Henry Bauck, John Herber, Chas. Ruppel, P. T. Altenberg.

Box Measures.

Farmers and gardeners will find a series of box measures very useful; and they can readily be made by any one who understands the two-foot rule and can handle the saw and hammer. A box 16 by 16½ inches, square and 8 inches deep, will contain a bushel, or 2,150.4 cubic inches, each inch in depth holding one gallon.

A box 24 by 11 1-5 inches square and 8 inches deep, will also contain a bushel, or 2,150.4 cubic inches, each inch in depth holding one gallon.

A box 12 by 11 1-5 inches square and 8 inches deep, will contain half a bushel or 1,075.2 cubic inches, each inch in depth holding half a gallon.

A box 8 by 8½ inches square and 8 inches deep, will contain half a peck or 298.8 cubic inches. The gallon dry measure.

A box 4 by 4 inches square and 4 1-5 inches deep, will contain one quart, or 67.2 cubic inches.

Weight of Grain, Etc.

Wheat, pounds per bushel, 60; rye, 56; corn, 56; oats, 32; barley, 48; buckwheat, 42; clover seed, 60; timothy seed, 45; flax seed, 56; hemp seed, 44; bluegrass seed, 14; apples, dried, 28; peaches, 28; coarse salt, 50; fine salt, 50; potatoes, 60; peas, 60; beans, 60; castor beans, 46; onions, 57; cornmeal, 50; mineral coal, 70.

Potatoes on Rich Soil.

A correspondent of the *New England Homestead* does not believe in the theory of growing potatoes on poor, unfertile soil to prevent rot. He gives his last year's experience as follows, with a half bushel Breese's Prolific potatoes:

"I cut them in pieces of one and two eyes each, prepared my land, (a light chestnut loam, including to sand), by plowing a liberal dressing of compost manure and then putting a shovel of well rotted compost consisting of horse, cow and pig manure mixed, in the hill. The sets were planted two feet apart in rows three feet apart, were kept free from weeds and hoed four times. From that half bushel of seed, I took up eleven barrels of potatoes for the table and two bushels of small potatoes for the pigs. There were no signs of rot or any other defect except a superabundance of very large tubers, too large for baking purposes. Better potatoes I have not had on my table at any time during the last ten years. The crop in 1872, on the same ground, was potatoes. From a five years' experience I am forced to the conviction that the potato should be as well fed and nursed as beets or cabbages. When I see fields of potatoes crowded with Roman wormwood, pigweed, cockleburrs and other foul stuff, I can't help feeling for them as one would for a family of small children with a dissipated father and a feeble, sickly mother—they need outside help and inside comforts."

AMERICAN TEA.—Georgia is going to try her hand once more at tea growing. Those who have investigated the subject assure us that the obstacle to the culture of tea successfully as an article of commerce in the Southern States is the want of experience, but chiefly of cheap labor. The tea tree of China has been grown by several persons in Georgia, from the Piedmont region to the sea coast. The shrub is a hardy and vigorous evergreen and thrives as well with us as it does in China or Japan. It grows from three to five feet high—a neat, compact, laurel-leaved shrub, with pretty, white flowers in spring, and is quite ornamental. It is perfectly hardy and will stand any exposure to the climate, as has been tested in Athens and many other localities in Georgia. We are told it would be an easy matter for any family that has a home and a few feet of ground to produce their own tea and a little to sell. Its general introduction for home use would most likely lead to its production for the market. There will be many things for the people to learn before they are able to manufacture the article as we get it from China; but, it is said, a very good tea, and free from adulteration, can be made by simply picking and drying the leaves in the same manner that sage leaves are cured.—*N. Y. Bulletin.*

HAND LATHES.—Those who use hand lathes will find that the clattering of the hand tool may be stopped by placing a piece of leather between the tool and the rest.

Pottery in the United States.

For the manufacture of pottery in the United States there is no lack of the very best material, and indeed there is no good reason why we should be dependent upon foreign sources for a supply of any kind of fine work. We can, at least, maintain a respectable antiquity here, for at the Delaware Water Gap specimens of cups, of early Indian work, of good form and rudely decorated, have been washed out, with stone implements. Wedgewood used clay from Georgia and Florida, and was quite jealous of the "pot works" in South Carolina in 1770. We had porcelain works in Philadelphia at that time, too, and again in 1849, but they were not sustained, although Phoenixville is doing its best to establish a factory there. Pennsylvania reports 198 establishments for the manufacture of stone and earthenware, the highest number in any state. Trenton has twenty potteries and sixty kilns, producing stone china as good as any imported. In Jersey there is an abundance of good clay from Camden county to Raritan bay. In Chester county there are establishments for mining, washing and preparing kaolin, a fine clay, equal to any from Cornwall in England, and on the Susquehanna there are mills to crush and grind fine quartz and felspar rock, the material used in the manufacture of pottery. The decoration of our home ware is going on finely, and in time we may hope to gain artistic culture and inspiration to rival our progress in other branches of useful manufacture, and learn to depend upon our own workmen to utilize the material which lies within our own borders, instead of importing or merely imitating the products of foreign workshops and designers.

The pottery business of California is gradually becoming an important industry. The pottery clays of the State seem to be gaining favor. The deposit found in the coal beds on the northeastern slope of Mt. Diablo has been used for years, and an extensive establishment has recently been put up at the Lincoln coal mine, where equally good material for earthenware has been found. As yet, only the coarser articles are made, but with time we may hope to see large factories of porcelain in California.

A New Carriage Wheel for the Road.

A new principle in the construction of carriage wheels has just been patented by Mr. Robert Picken, of Birmingham, which is exciting some attention. In this new wheel every part consists of wrought iron, with the exception of the tire, which is formed of the best cast steel. The method of fastening the spokes (which are hollow), both in the rim and in the boss, is as simple as it is safe. The tire is constructed so as to protect the other parts of the wheel when it runs against the curbstone, or comes in contact with another vehicle. Neither in putting on the tire, nor indeed in any portion of the work, is a single bolt or nail employed, the spokes being slipped into their places in the rim and boss, and afterward locked up by a nut, while the tire is firmly inserted into a groove in the rim. The patentee has likewise made considerable improvements in the axle-tree and boss, the strength of the former being increased at the points where it is most liable to give way, and the latter possessing accommodation for about four times the usual quantity of oil for lubricating purposes. Although made of iron and steel, each wheel is not more than two or three pounds heavier than ordinary wheels, and the cost of production is about the same in both cases. The objects aimed at by the inventor have been the light appearance and strength of the wheel as well as simplicity in its construction; and in these respects he has been highly successful.—*British Trade Journal.*

Fig Coffee.

A coffee substitute of roasted figs has been in the market in Australia for ten years, and is also prepared at present in Berlin. Recent tests of it indicate that it possesses a more agreeable flavor than the chicory substitute and has thus far been brought into the market free from injurious adulterations, often present in chicory coffee. Samples from Berlin, in the form of a coarse brown powder, including yellowish particles, formed an adhering, slightly gummy mass on being lightly pressed between the fingers, and possessed a sweetish, bitter taste, like caramel, and a corresponding odor. Australian samples, although mainly similar to the preceding, were slightly more pulverulent, and of a sourish taste, which fact, together with a chemical analysis, render it probable that cheaper, inferior, perhaps spoiled figs, had been used in its preparation. At its first introduction, wonderful medicinal properties were claimed for it in Australia, especially in affections of the lungs, etc., and it was recommended for nervous persons. Although it may be serviceable in such cases, it can hardly be considered medicinal, and the Berlin manufacturer claims that it is more wholesome than pure coffee, because it is less stimulating. In all cases it is recommended to employ an equal quantity of pure coffee with the substitute, and the color of the product is said to be exceedingly fine, as well as the flavor.—*Sieckle and Sheaf.*

STAMPING MOLD BOARDS.—Mold boards for plows are now stamped at a single operation, in a press.

The Cold Steam Motor.

We have made several allusions to what is claimed by a Philadelphia inventor as a new motive power which is to supersede steam, by virtue of its being far more powerful and very much cheaper. It is claimed that its cost is a mere trifle, compared to the cost of steam, while it is capable of being used with the utmost safety at a pressure many times that of the ordinary use of steam.

The discoverer refuses to tell, even the capitalists associated with him, how he obtains his power; although he freely permits his associates and some of their friends, as experts, to see the machine both at rest and at work. According to reports, they find that it actually possesses wonderful power, developed in a manner which they cannot explain. They have taken the machine to pieces, watched the discoverer, Keeley, while putting in water and blowing in air, examined the vapor which issues from the machine when in operation, and found that the power amounts to a pressure of several thousand pounds to the square inch. There is no fire, no heat, and, so far as they can discover, no chemical; and they suppose that the power is obtained by decomposing water into its constituent gases by some process not generally understood. Keeley says he must keep his secret till he gets his patents. He refuses to give a name to the motor; but others, led by guess, call it "cold steam." The machine is described as about three feet high, two long, and a foot wide; and contains a number of pipes of wrought iron connected by valves. It has been seen at work by Mr. Rutherford, Chief Engineer of the United States Navy, and he, with others, signed an opinion which has been published in a pamphlet for the use of the stockholders.

We understand that neither Mr. K. nor the parties associated with him desire to part with any stock in the invention, and they express the belief that within a short time trains will be driven by the new motor on some one or more of our principal railroads. While mechanics and others are on the tiptoe of expectation, all prefer to wait for a practical demonstration, on the principal that only seeing will lead to full confidence in the reality of the invention.

REPAIRING RUBBERS.—Rubber, or even leather boots, may be repaired by using the following cement: Take gum shellac three parts, india rubber one part, by weight. Dissolve these ingredients in separate vessels, in ether free from alcohol, applying a gentle heat. When the oily dissolved, mix the two solutions, and keep in a bottle tightly stoppered. This glue resists the action of water, both hot and cold, and most of the acids and alkalis. Pieces of wood, leather, or other substances, joined together by it, will part at any other point than at the joint thus made. If the glue be thinned by the admixture of ether, and applied as a varnish to leather, it renders the joint of seam water tight, and almost impossible to separate. By cementing a piece of thin leather or rubber over a crack, a neat and durable patch may be made. The sole of leather boots may be made more durable and perfectly waterproof by soaking them thoroughly, before a fire, with common pine tar. Three or four repeated applications are necessary to saturate the leather, when it completely absorbs the tar, and the soles are dry and hard as horn, but quite flexible.

COPYING MANUSCRIPT.—The following is a simple way of obtaining copies of writing without the use of a copying press: Mix white sugar with the ink, one and a half drams sugar to one ounce ink. Use this with an ordinary pen, and place over the writing a moistened sheet of unsized paper. Lay both leaves between two layers of carpet; put the whole under a piece of board large enough to cover. Then stand on the board for a few seconds. An excellent impression will be found on the copying paper.

TO FIT A KEY.—When it is not convenient to take a lock apart to fit a new key, the key blank should be smoked over a candle, inserted in the keyhole, and pressed firmly against the opposing wards of the lock. The indentations in the smoked portion made by the wards will show where to file.

THE best pine wood evaporates five pounds of water per pound of wood consumed in a steam boiler furnace. One cord of wood can be consumed per hour on sixty square feet of grate. One pound carbon burnt to carbonic acid requires the oxygen of 153 cubic feet of atmospheric air.

RAPID WORK.—John Adt, an ingenious inventor of New Haven, Conn., has invented and is now manufacturing a machine which will cut, bend and finish 500 staples a minute. It will take but few such machines to make all the staples needed in the country.

WHITE horn buttons may be made to imitate mother-of-pearl by being boiled in a saturated solution of sugar of lead and then laid in very dilute hydrochloric acid.

To make green gold, melt together nineteen grains pure gold and five grains pure silver. The metal thus prepared has a beautiful green shade.

GLYCERINE added to paper stock increases the flexibility of the paper.

Certain Local Advantages for Immigrants.

We give below some of the advantages connected with certain localities, beginning with an article from the *Southern Californian*:

The Government Lands in Kern County.

"Some of the best lands in Kern county are yet open to settlement. The lands in township 29 s. r. 27 e., township 29 s. r. 26 e., lying west of the river, are mostly very favorably located, and some recent settlers there are constructing a ditch from Kern river. The surveyor has been at work in these townships for many days past, accommodating a number of new families who have made their way in wagons from the north. There is room for thousands of settlers in these two townships alone. Bakersfield is situated on the east side of township 29 s. r. 27 e., so that the outer limit of the two townships would be but twelve miles from this place. Portions of sections 18, 25, 30 and 32 have been applied for within a short space of time, but, according to the testimony of Mr. McCord and Mr. McCaffrey, who have settled there, the lands remaining are equally good, and are well worth the attention of families seeking for good homes. There is a fair supply of timber on each section, abundant water to be obtained from the river, which runs through the townships.

As a general thing, too little effort is given to search for such locations by new comers. It is found more convenient to buy out some settler already established, at from ten to twenty dollars per acre. We know of 160-acre farms having been sold for \$2,000, by speculating settlers, who never made the least improvement, and who have managed to secure another claim within a few miles at government price.

We hope this notice will be read only by bona fide settlers, to whom we will cheerfully give all the information needed to make locations, which to some extent can be done without the expense of a surveyor."

The *Stockton Independent*, of May 29th, contains the following concerning

Land in Tulare.

"A private letter to a gentleman in this city states that the best government lands along the Tule river are appropriated by settlers, and considerable of the railroad land is filed on by parties living near it. The writer states that in the vicinity of Tule river there are certain lands that could be bought at a comparatively low price, and could be easily and cheaply irrigated. He says that, according to the railroad company's circular in relation to their lands, filing merely gives the company notice that a certain person wishes to purchase a certain tract whenever the company is ready to sell it; yet if the person filing will live upon the land and improve the same, he will be entitled to the preference over others in purchasing at their rated price, even if other parties should offer more. If what the circular states be correct, and if the railroad company have adopted the rates established by their rating agent, who has been stopping in Tulare during the last six months, then, the writer thinks, a person can do better by purchasing from the company than from the government, provided titles are not in any way encumbered or clouded. We have been permitted to quote the following paragraph from the letter:

Starting on the north side of the valley of King's river, and traveling south until you reach the farther edge of the south side valley of Kern river, a distance of 100 miles through a valley that will average more than twenty miles wide, you pass over good land most of the time. I can safely say that the greater portion of it is good agricultural land, and would be valuable under a proper system of irrigation, and it would be a small job to introduce water to any part of it, because all the rivers of this region have low banks all the way from the mountains to the lakes. To see such a wealth of water running to waste now every day, when all over the country there is one universal cry for water, almost makes one's heart sick.

If you seriously contemplate settling on a ranch, I would recommend you to spend a month looking at this country before locating elsewhere. Some parts of the country have the reputation of being sickly while other portions are unusually healthy.

We are a long way from a general market and freights just now are enormous. But suppose a person had a field of alfalfa and would raise hogs and some grain to fatten them in the winter, and then go into the business of making bacon and packing pork. The present heavy freights both ways, as well as the profits of the San Francisco packers would then be saved. The people here send scores of car loads of live hogs to the city to sell, and then the city merchants pack and sell to the people here the same meat originally owned by themselves.

I see by the papers that there is a heavy immigration to California this year. Let the land proprietors of this valley induce them to come here and develop the remarkable resources of this region, and it will add to the prosperity and happiness of all concerned."

The Consolidated Wax Thread sewing machine company, of Boston, manufacture a sewing machine for boot and shoe and all kinds of leather work that uses a waxed thread. It has a large sale, not only in the United States, but in various parts of Europe.

An Improved Window Sash.

The accompanying illustration is an improved arrangement, recently patented through the agency connected with this office by John J. Price, of this city, for raising, lowering and locking the upper sashes of windows, and also to provide a lock or fastener for the lower sashes. The first arrangement consists in so arranging one of the weights which assists in balancing the upper sash that it will operate as a slide inside of the window casing, and then applying the force to raise and lower the weight instead of applying it to the sash. As the weights exactly balance the sash when hanging freely in the casing, the lifting or lowering of the slide weight will raise or lower the sash. The second improvement consists in the employment of a snap catch on the bottom rail of the lower sash, which will automatically lock into the sill of the window frame when the sash is drawn down against the sill.

The upper sash is balanced by two weights, one on each side of the casing. One of these weights, *d*, is arranged to slide up and down in ways in the lower part of the casing. The cord

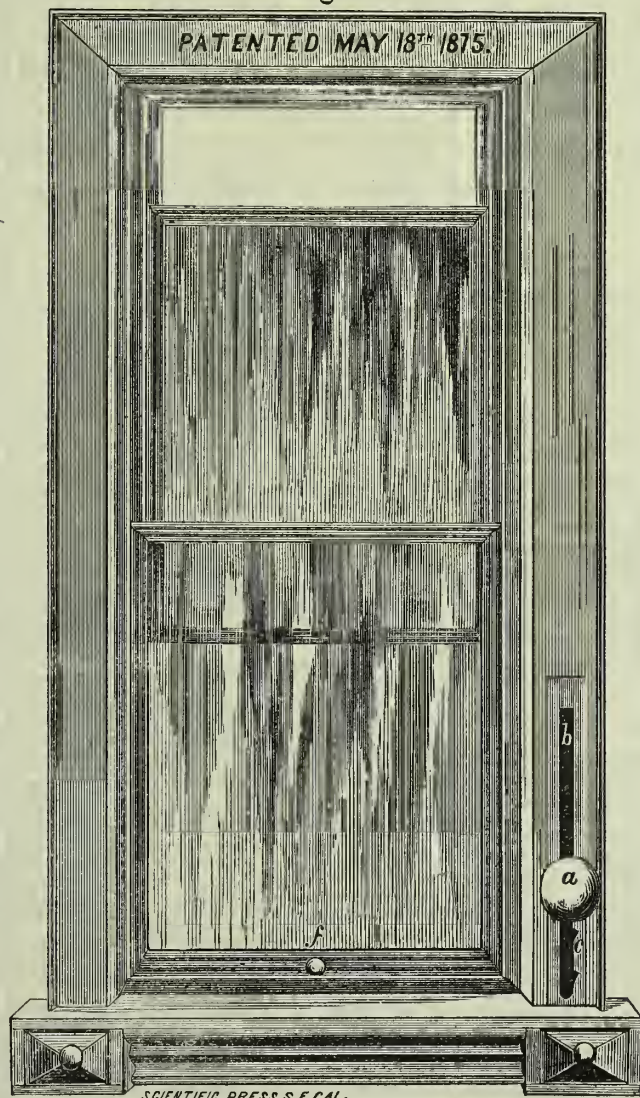
and this power is applied to the sliding weight, *d*, through the button, *a*, and its shank.

By turning the knob or button, its shank is released from the teeth, when a slight upward or downward pressure applied to the button will raise or lower the weight and upper sash to any desired point, where it can be again locked by turning the button so that it cannot be opened further until the weight is released; and as the weight travels in this bight of the cord, a short movement of the button up or down will completely raise or lower the sash, thus bringing it within the reach and power of the merest child to raise and lower the upper sash. This arrangement also avoids the trouble of having to raise the lower sash in order to reach outside and grasp the lower rail of the upper sash to raise or lower it.

The lower sash is provided with a snap catch, *f*, which automatically hooks into a recess in the sill of the window casing, or in the strip which is secured upon the sill. This catch is unlatched by lifting upward upon a projecting lever handle, which is so connected with the hook, *f*, that by lifting upward on the lever handle or finger catch, the hook is forced backward, and released from its catch. The lower face of this hook is inclined so that when the sash is closed down it will be forced backward and automatically fastened.

By this means Mr. Price provides a greatly

Fig. 1.



IMPROVED WINDOW SASH.

which connects the sash with this weight passes over a pulley in the top of the casing in the usual way, and is then carried down under the pulley in the sliding weight, *d*, and thence is carried up inside of the casing to the top of the window frame, where it is fastened at *e*. The weight pulley, *d*, will then travel in the bight of the cord, and will only have to raise and lower a little over one-half the distance in order to raise and lower the sash that it would if the end of the cord were attached directly to the weight, *d*. The weight in the opposite side of the casing is suspended in the ordinary way.

In the facing of the casing directly in front of the sliding weight, *d*, is made a vertical slot, *b*, which is as long as the weight, *d*, will have to travel in order to raise and lower the sash. A metal plate, which is slotted to correspond with the slot in the casing, is sunk into the outside of the casing, so as to be flush with its outside face, and one edge of the slot on this plate is provided with teeth, *c*, as shown.

The shank of an ornamental button, *a*, passes through the slot and is fastened to the sliding weight, *d*, inside of the casing, while the button, *a*, remains on the outside. The shank is so constructed that by turning it to one position it will move up and down freely in the slot, but by giving it a half or quarter turn in either direction it will lock into the teeth, *c*, and fasten the weight firmly in place. Now, as the sash is balanced by the two weights, very little power is required to raise and lower it,

improved arrangement for operating and locking window sashes. Where three or more sashes are placed in one window opening, the upper sashes can all be balanced and operated by sliding weights as described for the upper sash, and in this case the sliding weights which operate the different sashes can be placed on opposite sides of the window. The slot, *b*, can be made on the inside face of the casing if preferred, and the locking shank inserted through it, and fastened in the weight as above described, but this can be arranged according to convenience. It is not absolutely necessary that the lifting weight should slide in ways, but it is much preferable to so construct it. Those desiring further information on this subject can address the inventor, John J. Price, 521 Brannan street, San Francisco.

WHAT BECOMES OF DRIFT COAL.—Dr. Kane, in his arctic explorations, found beds of lignite, or brown coal, that were smouldering along their edges, having evidently been fired by spontaneous combustion; which leads to the deduction that the coal along the lines of anticlinal axes of the Mississippi valley coal field was consumed as the abrasion of the valleys of the Ohio, Missouri, and Mississippi commenced and the coal veins were exposed; that these, fired by spontaneous combustion, smouldered as the cutting down of these valleys progressed.

Railway Progress.

Notwithstanding the fact that the continent of Europe is now well covered with lines of railroads; that 8,000 miles of railroads have been constructed in England within the last fifteen years; that France and Italy have pierced Mont Cenis to effect a closer and more direct railway union; that Austria is carrying new lines across the plains of Hungary, while Russia is occupied with extensive schemes for connecting St. Petersburg and Moscow with her Black Sea ports on the one hand and with the frontier towns of her Asiatic empire on the other—notwithstanding all this great and rapid progress in Europe, the railroad mileage of the United States, with a population of 40,000,000, fully equals that of Europe with a population of 282,000,000.

In British India about 5,000 miles of railroad have been laid down within the last sixteen years, while great achievements have been performed in the British provinces on this continent.

Official reports show that no less than 70,651 miles of railway were in use in the United States at the end of 1873. The degree to which large cities are now dependent upon railroads for the supply of food is exhibited by some startling statistics recently published in London, from which it seems that great cities are fed by railroads from day to day, having never more than a few days' supply of provisions on hand at any time. A railroad strike in that city would starve the population into submission in a week. All that an invading army would have to do to completely reduce the largest city in the world would be to cut off her railroad communication for a few days. Were the full statistics of a similar character collected for our American cities, the result would no doubt be almost equally astonishing.

Great efforts are now being made to avoid the accidents which have been so alarmingly frequent during the past. Improved rails, switches, couplings, danger signals, brakes, etc., are now being introduced, the beneficial effects of which are already beginning to be felt. The introduction of the steel rail is of much greater importance than was that of the T-rail in avoiding the "snake-heads" of the old fashioned flat rail. By these and similar improvements two important objects are gained—an increase of speed and decrease of danger.

The Pennsylvania road between New York and Pittsburgh—444 miles—has recently laid down 60-pound steel rails, with improved ties, ballast, joints, etc. By the aid of these improvements, with heavy and improved locomotives, the distance is now made in eleven hours, including stops—an average of over 40 miles an hour, or double the speed of our California roads. The locomotives on this road dip up their water as they run, and there is probably no railway in the world of equal length whose passengers are carried more expeditiously, speedily or luxuriously.

Steel Rails for California.

It is gratifying in this connection to be able to state that California is also making progress in the way of railway improvement. The Southern Pacific railroad company of this State has recently contracted with the Pennsylvania steel company and the Bethlehem iron company for 10,000 tons of steel rails—5,000 from each company—to be used in continuing the line of the road south of Los Angeles in the direction of Fort Yuma, the southern terminus of the road, at the junction of the Colorado and Gila rivers. The distance by rail from San Francisco to Fort Yuma is 722 miles. At Fort Yuma the Southern Pacific will probably connect with the Texas Pacific (Col. Scott's road), and farther north, at Fort Mohave, on the Colorado river, another eastern connection is expected to be made in time. The steel rails ordered are to weigh fifty pounds to the yard, and the quantity ordered will lay 100 miles of single track, including sidings. The rails will be shipped by sailing vessels around Cape Horn.

We hope that this transaction may be but the beginning of a large trade in steel rails and iron and steel products generally between the East and the Pacific coast. The States and Territories of the Pacific slope consume annually about 300,000 tons of iron in all forms, and until they are ready to make their iron and steel it would certainly be wise for them to buy their supplies from sister States rather than from foreigners.

DISEASE PROOF POTATOES.—A committee of the Royal Society of England reports that six varieties of potatoes entered for experiment as disease proof, and plant d in twenty trial plots in different parts of the United Kingdom, have all failed to stand the test. The council had reserved the power to enforce a penalty of £20 in each case of failure, but the committee recommended that this penalty be not enforced. Professor de Bary, in a communication to the committee, claims to have ascertained definitely that this disease is not propagated by infected tubers. He recommends that potatoes be not planted near or after plants known to be suitable to the development of oospores of the *Peronospora infestans*—Dept. of Ag.

To buy all the land one can is like a merchant paying all his money for a building.

GRANGE DIRECTORY.

(Secretaries of Granges will please notify if incorrect.—Eds. Press.)

National Grange.

OFFICERS:

Master—DUDLEY W. ADAMS, Waukon, Iowa.
 Overseer—THOMAS T. VAILOR, Columbia, South Carolina.
 Lecturer—T. A. THOMPSON, Plainview, Wash. Co., Minn.
 Steward—A. J. VAUGHAN, Early Grove, Marshall Co., Miss.
 Assistant Steward—W. THOMPSON—New Brunswick, N. J.
 Chaplain—REV. A. B. GRIFFIN, Washington, D. C.
 Treasurer—F. M. McDOWELL, Wayne, N. Y.
 Secretary—O. H. KELLEY, Washington, D. C.
 Gate-keeper—O. DINWIDDIE, Orchard Grove, Lake Co., Ind.
 Ceres—Mrs. D. W. ADAMS, Waukon, Iowa.
 Pomona—Mrs. O. H. KELLEY, Washington, D. C.
 Flora—Mrs. J. Q. ABBOTT, Clarksville, Ind. Co., Iowa.
 Lady Assistant Steward—Miss O. A. HALL, Washington, D. C.

Executive Committee:

WILLIAM SAUNDERS, Washington, D. C.
 D. W. YATTON, Cokesbury, Abbeville Co., S. C.
 F. R. SHANKLAND, Dubuque, Iowa.
 JOHN T. JONES, Helena, Phillips Co., Ark.
 DUDLEY T. CHASE, Claremont, N. H.

California State Grange.

OFFICERS:

Master—J. M. HAMILTON, Guenoc, Lake Co.
 Overseer—O. L. ABBOTT, Santa Barbara.
 Lecturer—J. W. A. WRIGHT, Borden, Fresno Co.
 Steward—L. A. ALLEN, Salinas, Monterey Co.
 Assistant Steward—W. M. JACKSON, Woodland, Yolo Co.
 Chaplain—J. A. HUBBARD, Yuba City, Yuba Co.
 Treasurer—J. B. CARRINGTON, Denver, Solano Co.
 Secretary—W. H. BAXTER, 8 Leidesdorff street, S. F.
 Gate-keeper—R. R. WARDER, Waterford, Stanislaus Co.
 Ceres—Mrs. G. W. DAVIS, Santa Rosa, Sonoma Co.
 Pomona—Mrs. S. B. BAXTER, Napa City, Napa Co.
 Flora—Mrs. R. S. HEGLER, Bodega, Sonoma Co.
 Lady Assistant Steward—Mrs. S. M. GARDNER, Grayson, Stanislaus Co.

Executive Committee:

J. M. HAMILTON, W. M., Chairman, Guenoc, Lake Co.
 A. D. LOGAN, Princeton, Colusa Co.
 J. C. MEYERFIELD, Dixon, Solano Co.
 H. M. LEONARD, Santa Clara, Santa Clara Co.
 J. M. THOMPSON, Escalon, Napa Co.
 G. W. COLLEY, Nord, Butte Co.
 A. B. NALLY, Windsor, Sonoma Co.
 Address, at present, San Francisco.

State Agency:

Headquarters of Executive Committee and State Agent
 at No. 6 Leidesdorff street, San Francisco.—J. G.
 GARDNER, General Agent.

List of Organizing Deputies.

COUNTY.	DEPUTY.	POST OFFICE.
Alameda.	Thos. Heller.	Hayward.
Amador.	H. H. Hallett.	Plymouth.
Butte.	E. W. Colby.	Chico.
Butte.	D. H. Arnold.	Nord.
Colusa.	A. J. Christie.	Spring Valley.
El Dorado.	J. W. A. Wright.	Coloma.
Fresno.	J. W. A. Wright.	Borden.
Humboldt.	J. D. Fowler.	Calto.
Inyo.	T. J. Furbee.	Bishop's Crk., Inyo.
Lake.	H. A. Oliver.	Guenoc.
Los Angeles.	Thos. A. Garey.	Los Angeles.
Los Angeles.	E. E. Eddy.	Anaheim.
Mendocino.	R. M. Wilson.	Calto.
Mendocino.	W. D. Whitto.	Stockton.
Monro.	T. J. Furbee.	La Honda.
Placer.	A. D. Neher.	Santa Barbara.
Pumas.	A. D. Spore.	Reading.
San Benito.	J. D. Fowler.	Realing.
San Diego.	J. F. Ohapiu.	Suisun.
San Joaquin.	A. Wolf.	Dixon.
San Mateo.	M. Woodham.	Santa Rosa.
Santa Barbara.	J. L. Abbott.	Unifor.
Shasta.	R. C. Hume.	Healdsburg.
Solano.	R. C. Hume.	Modesto.
Solano.	J. O. Merryfield.	Yuba City.
Sonoma.	Geo. W. Davis.	Farmington.
Sonoma.	W. W. Walker.	Visalia.
Sonoma.	T. H. Merry.	Ventura.
Stanislaus.	J. D. Reymann.	Wm. Sims.
Sutter.	Geo. Ohleyer.	Butte.
Tehama.	A. J. Loomis.	
Tulare.	M. S. Biscock.	
Ventura.	E. E. Higgins.	
Yolo.	Wm. Sims.	

General Deputies.

Alameda. Ezra S. Carr. Oakland.
 Fresno. J. W. A. Wright, (W. L.) Borden.
 San Francisco. W. H. Baxter, (W. S.) 6 Leidesdorff St.
 Solano. John B. Carrington, Denver.

NEVADA.

A. J. Hatch. Reno.
 Douglas. J. R. Livingston. Genoa.
 Esmeralda. Kimber Cleave. Mansion Valley.
 Humboldt. B. F. Riley. Paradise Valley.
 Elko. J. A. Thier.
 Farmers desiring to organize Granges, can apply to J. M. Hamilton, (W. Master), Guenoc, Lake Co.; W. H. Baxter (W. Secy), No. 6 Leidesdorff St., S. F.; J. W. A. Wright, (W. Lecturer), Borden, Fresno Co.; or to the nearest Deputy to their locality.

Oregon State Grange Deputies for 1875.

Farmers of Oregon, and Washington and Idaho Territories: Organize for self protection and for the enablement of the industrial pursuits. To facilitate this work, I have commissioned the following persons as my Deputies, in this jurisdiction, to institute Granges, and to have a general supervision of our work in their respective jurisdiction.
 For Douglas County—R. M. Gurney, Ten Mile P.
 Coos County—J. Henry, Junction, O. P.
 Jackson—D. S. R. Butler, Ashland, P. O.
 Lane—H. N. Hill, Junction, and George R. Hamersly, Camp Creek.
 Linn—Wm. Cyran, Scio; R. A. Irvine, Lebanon; S. D. Hays, Peoria.
 Benton—Chas. E. Moor and Jacob Modie, Corvallis.
 Polk—James Tatom, Dixie.
 Marion—B. A. Witzel, Turner.
 Yamhill—Alexander Reid, McMinnville, and A. B. Henry, Lafayette.
 Washington—T. D. Humphrey, Hillsboro; and Henry Buxton, Forest Grove.
 Clackamas—E. Forbes, Oregon City; and A. R. Shipley, Oswego.
 Multnomah—Jacob Johnson and W. J. Ormshill, East Portland.
 Clatsop—J. M. McIntire, McIntire's Landing, Sanvie's Island.
 Clatsop—R. W. Morrison.
 Wasco—R. Mayes, The Dalles; and J. H. Douthitt, Upper Ochoo.
 Grant—D. B. Rhinehart, Canon City.
 Umatilla—John S. White, Weston.
 Baker—Wm. Brown, Baker City.
 Tillamook—H. E. F. F.
 WASHINGTON TERRITORY.
 Walla Walla County—Wm. M. Shelton and O. Hull, Walla Walla.
 Whitman—Henry Spalding, Ewartsville.
 Clark—H. M. Russell, Weiser, and L. F. Carter, Boise City.
 Any locality within this jurisdiction for which no deputy has been appointed for the organization of Granges, will receive immediate attention if application is made to me. I will attend to it in person or appoint or send a Deputy.
 DANIEL CLARK
 Master Oregon State Grange, P. O. of H.
 Salem, Jan. 4, 1875.

The National Grange.

STATE.	MASTER.	ADDRESS.
ALABAMA.	W. H. Chambers.	Oswichee, Russell Co.
ARKANSAS.	John T. Jones.	Helena, Phillips Co.
CALIFORNIA.	J. M. Hamilton.	Guenoc, Lake Co.
COLORADO.	R. Q. Tenney.	Fort Collins, Larimer Co.
DELAWARE.	J. J. Rosa.	Milford.
DAKOTA.	E. B. Crew.	Lodi, Clay Co.
FLORIDA.	B. R. Allen.	Madison, Madison Co.
GEORGIA.	T. J. Smith.	C. R. R. Wash. Co.
ILLINOIS.	Alonzo Golder.	Rock Falls, Whitesides Co.
INDIANA.	Henry James.	Marion, Grant Co.
IOWA.	A. B. Smedley.	Oresco, Howard Co.
KANSAS.	Joseph T. Moore.	Mapleton, Bourbon Co.
KENTUCKY.	M. D. Davis.	Heverly, Christian Co.
LOUISIANA.	II W. L. Lewis.	Oskya, Pike Co., Miss.
MAINE.	Nelson Ham.	Leiston, Androscoggin Co.
MARYLAND.	Joe T. Moore.	Sandy Springs, Md.
MASS.	Joseph P. Feiton.	Greenfield, Franklin Co.
MICHIGAN.	S. F. Brown.	Schoolcraft, Kalamazoo Co.
MINNESOTA.	S. E. Adams.	Monticello, Wright Co.
MISSISSIPPI.	W. L. Hemmingway.	Carrollton, Carroll Co.
MISSOURI.	J. R. Allen.	Keosauqua, Mo.
MONTANA.	Brigham Reed.	Bozeman, Gallatin Co.
NEBRASKA.	Wm B. Porter.	Plattsmouth, Cass Co.
NEW HAMPSHIRE.	Dudley T. Chase.	Claremont, Sullivan Co.
NEW JERSEY.	M. Whiteside.	Middlebush.
NEW YORK.	Geo. D. H. H. H.	Frederonia, Chautauqua Co.
N. CAROLINA.	Columbus Mills.	Concord, Cabarrus Co.
NEVADA.	(United with California)	
OHIO.	S. H. Ellis.	Springboro, Warren Co.
OREGON.	Daniel Clark.	Salem, Marion Co.
PENNA.	D. M. H. H.	Douglasville, Berks Co.
S. CAROLINA.	W. D. Aiken.	Columbia, Richland Co.
TENNESSEE.	Wm Maxwell.	Humboldt, Gibson Co.
TEXAS.	Wm W. Lang.	Marlin, Falls Co.
VERMONT.	E. P. Colton.	Iraburg, Orleans Co. (see Vermont).
VIRGINIA.	B. M. Kitchen.	Shanghai, Berkeley Co.
WISCONSIN.	John Cochrane.	Waupun, Fond du Lac Co.
WASHINGTON.	(United with Oregon)	

Oregon State Grange.

OFFICERS:

Master—DANIEL CLARK, Marion Co.
 Overseer—WILLIAM CYRUS, Linn Co.
 Lecturer—E. L. SMITH, Olympia, Washington Territory.
 Steward—W. M. SHELTON, Walla Walla, W. T.
 Assistant Steward—J. A. HUBBARD, Linn Co.
 Chaplain—M. PETERSON, Jackson Co.
 Treasurer—S. P. LEE, Clackamas Co.
 Gate-keeper—J. HENRY SMITH, Linn Co.
 Ceres—Mrs. J. A. MATTHEWS, Douglas Co.
 Pomona—Mrs. J. A. MATTHEWS, Linn Co.
 Flora—Mrs. M. POWERS, Linn Co.
 Lady Assistant Steward—Mrs. L. S. FOLSOM, Linn Co.
 Executive Committee:
 S. W. BROWN, Clarke Co., W. T.
 H. N. HILL, Lane Co.
 C. E. MOOR, Benton Co.
 ORLEY HULL, Walla Walla.
 E. FORBES, Clackamas Co.
 M. FISK, Salem.

California District and County Councils.

ALAMEDA COUNTY—Hayward: JOEL RUSSELL, M.; T. L. A. GAREY, Los Angeles, M.; J. F. MARQUIS, Anaheim, M.
 MENDOCINO COUNTY, Ukiah City: L. F. LONG, M.; J. A. KIRK, S. F. S. F.
 MONTEREY AND SANTA CRUZ DISTRICT—J. R. HEBBORN, M.; A. F. RICHARDSON, M.
 NAPA DISTRICT—J. F. BLANCHARD, M.; H. W. HASKELL, S. F. S. F.
 SACRAMENTO, EL DORADO AND PLACER DISTRICT—Other not reported.
 SAN LUIS OBISPO COUNTY—A. J. MOTHERHEAD, M.; J. M. MANNON, S.
 SANTA CLARA COUNTY—H. M. LEONARD, M.; I. A. WILCOX, S. Regular meetings every three months, alternately at Santa Clara and San Jose.
 SANTA BARBARA AND SAN LUIS OBISPO DISTRICT—Officers not reported.
 SOLANO COUNTY—J. MC MULLEN, M.; J. M. JONES, S. SONOMA COUNTY—McPHERSON, M.; S. T. COLETER, S. STANISLAUS COUNTY—H. W. BROWSE, M.; V. E. BROS. S.
 TULARE COUNTY—W. S. BARCOCK, M.; J. S. URTON, S. VENTURA COUNTY COUNCIL—MILTON WATSON, M. E. HIGGINS, S.
 WEST SAN JOAQUIN DISTRICT (Merced, San Joaquin and Stanislaus counties)—W. J. MILLER, Oristimba, M. THOMAS A. CHAPMAN, Oristimba, S.

California Subordinate Granges.

(This list contains the names of Masters and Secretaries so far as reported to us, elected to serve during the year 1875. In Granges not reported we continue the names of last years officers. Secretaries and others will greatly oblige us by making useful corrections.)
 EXPLANATIONS.—The P. O. address is given only where it is different from the name of the Grange.

Grange and P. O.	Master.	Sec'y.
AMADOR COUNTY.		
PLYMOUTH.	H. VANDERPOOL.	S. C. WHEELER.
JACKSON VALLEY.	J. C. HAMRICK.	L. J. DOOLEY.
ALAMEDA COUNTY.		
CENTREVILLE.	JAS. SHINN.	M. B. STUBBS.
EDEN, Hayward's.	Thos. Heller.	Wm. Pearce.
LIVERMORE.	D. INMAN.	J. F. FASSETT.
SUNOL.	A. M. CARL.	S. M. HARRIS.
TEMESCAL, Oakland.	J. V. WEBSTER.	JOHN COLLINS.
BUTTE COUNTY.		
OHIO.	E. HALLITT.	H. W. BARNES.
EVENING STAR, Nelson.	A. D. NELSON.	A. WOODHUFF.
HAMILTON, Biggs' Stn.	H. L. LASSELLE.	ANSON CROOKS.
NORD, P. O. Nord.	G. VAN WOEK.	PETER KERN.
CALAVERAS COUNTY.		
ANTOLOPE VALLEY.	J. OHN STITS.	P. PETERSON.
CENTER, Colusa.	D. BERE.	MRS. CARRIE WEBLEY.
COLUSA, Colusa.	J. O. WILKINS.	R. JONES.
FRESHWATER, Colusa.	P. S. PERDUE.	R. A. WILSON.
PUNK SLUGG, Colusa.	J. D. WILSON.	E. O. CENTER.
GRAND ISLAND.	A. M. WILKINS.	JAMES HARRIS.
PLAZA, Jacinto.	M. KENDRICK.	J. W. BOWEN.
PRINCETON.	R. R. RUSH.	P. H. SCOTT.
SPRING VALLEY.	B. LUCAS.	T. SINGLETON.
WILLOWS, Princeton.	J. G. WELLS.	L. D. BROWN.
CONTRA COSTA COUNTY.		
ALHAMBRA, Martinez.	J. STENZEL.	W. A. FRAZER.
ANTIOCH.	M. A. WALTON.	J. D. DAREY.
DANVILLE.	C. WOOD.	J. R. SYDNOR.
POINT OF TIMBER.	M. S. MCABE.	E. W. CARY.
WALNUT CREEK.	M. S. GRAY.	E. M. JONES.
EL DORADO COUNTY.		
CLARKSVILLE.	K. T. MILLS.	I. MALTBY.
EL DORADO.	C. G. CARPENTER.	J. M. B. WEATHERWAX.
PILOT HILL, Pilot Hill.	JOHN HARRIS.	A. J. BAYLEY.
SUTTER HILL, Colusa.	J. G. O'BRIEN.	H. MAHILL.
FRESNO COUNTY.		
ADAMS, Big Dry Creek.	T. P. NELSON.	T. WYATT.
BORDEN.	H. L. PATTERSON.	J. FONTAINE.
FRESNO, Fresno City.	JOS. BURNS.	H. C. HIGBY.
GARETSON, King's R.	Wm. Sanders.	P. R. FANNING.
KINGBURY, W. H. Wm.	W. H. HAGAR.	W. M. POAGE.
RISING STAR, Panocho.	C. H. WELLING.	H. PRICE.
RIVERDALE, Fresno City.	C. H. WELLING.	H. PRICE.
SYCAMORE.	H. J. ALLEN.	
HUMBOLDT COUNTY.		
ELK RIVER, Eureka.	J. S. STEWART.	ANDREW J. KNAPP.
FERNDALE.	F. Z. BOYNTON.	E. C. DAMON.
KIWELETTA, Arcata.	D. D. AVERILL.	F. MCPHER.
MATTOLE, Eureka.	JACOB MERRILL.	DAVID SIMMONS.
ROHNERTVILLE.	H. S. CASE.	STRONG.
TABLE BLUFF.	J. SAWYER.	E. CLARK.
INYO COUNTY.		
BISHOP'S CREEK.	A. DELL.	W. T. WENWALL.
INDEPENDENCE.	J. J. MCCALL.	A. H. JOHNSON.
KERN COUNTY.		
BAKERSFIELD.	J. R. RILEY.	O. B. ORMSBY.
CUMMINGS, Valley.	T. H. HIGGINS.	G. THOMPSON.
LYNN'S VALLEY, Glennville.	S. E. REED.	
NEW RIVER, Bakersfield.	W. NEWTON.	S. G. BAKER.
PANAMA, Bakersfield.	C. B. CALDWELL.	S. BAKER.
TEHAICHPA.	E. MCVICAR.	J. PREWITT.
WELDON.	J. S. PATZ.	JAMES SWAN.
LAKE COUNTY.		
GENEO.	T. C. SOBER.	W. C. GREENFIELD.
KELSEYVILLE.	D. P. SHATTUCK.	T. ORMISTON.

LAKEPORT.	CYRUS CUTLER.	J. W. EVERETT.
LOWER LAKE.	J. W. HOWARD.	LUCY S. WILSON.
UPPER LAKE.	D. V. THOMPSON.	D. Q. MCCARTY.
LOS ANGELES COUNTY.		
ALLIANCE, El Monte.	J. D. DUFFEE.	J. W. MARSHALL.
AZUSA, El Monte.	IRA S. THOMPSON.	J. C. PRESTON.
COMPTON.	J. J. MORTON.	F. V. KIMBLE.
EL MONTE, El Monte.	J. T. GORDON.	A. H. HOYT.
ENTERPRISE, Los Angeles.	T. C. ALEXANDER.	MRS. ALEX. R.
EUREKA, Spadra.	C. BURDICK.	A. O. GREEN.
FAIRVIEW, Los Angeles.	DAVID E. EYRE.	F. L. TODD.
FLORENCE, Los Angeles.	PHILIP HOW.	R. RANNEY.
FRUITLAND, Sta. Ana.	N. O. STAFFORD.	E. L. RUSSELL.
LOS ANGELES.	T. A. GAREY.	S. A. WALDRON.
LOS ANGELES.	E. B. GRANDIN.	W. S. REAVIS.
NEW RIVER, L. Nietos.	W. N. HANBY.	S. E. BAKER.
ORANGE.	L. J. LOCKHART.	J. W. ANDERSON.
SILVER L. Nietos.	W. P. McDONALD.	DORA SEIDMORE.
SPADRA.	A. T. CURRIER.	JOS. WRIGHT.
STANLAND, Tustin Co.	G. W. FREEMAN.	EUGENE STINE.
WESTMINSTER.	WESTMINSTER.	GO. CRAIG.
MARIN COUNTY.		
NICASIO.	P. K. AUSTIN.	J. W. NOBLE.
TOMALES.	WM. VANDERBILT.	R. H. PRINCE.
MENDOCINO COUNTY.		
CAHITO.	J. H. BROWN.	J. H. CLARK.
LITTLE LAKE.	W. A. WRIGHT.	A. P. MARTIN.
MANCHESTER.	B. F. MCCLURE.	W. F. MCCLURE.
POMO.	J. MEWHINEY.	G. B. NICHOLS.
POTTER VALLEY, L. A.	PRESTON, Mrs. A. H.	S. LINGELLAND.
ROUND VALLEY.	W. N. HANBY.	F. L. TODD.
SANUEL.	A. MARSHALL.	J. W. ANDERSON.
UKIAH.	THOS. A. LUCAS.	A. O. CARPENTER.
MERCED COUNTY.		
RADGER FLAT, L. Baros.	A. P. MERRITT.	W. F. CLARKE.
COTTONWOOD.	D. M. RUSSELL.	C. M. DALEY.
HOPETON.	JOHN RUDDELL.	T. EGLESON.
LOS BANOS.	N. A. SMITH.	JOHN H. BEAVER.
MERCED.	W. E. ELLIOT.	JNO. B. RALSTON.
PLAINSBURG.	P. Y. WELCH.	T. J. E. WILCOX.
SNELLING.	ERASTUS KERRY.	FRANK LARRIN.
MONTEREY COUNTY.		
MORNING STAR, Castroville.	C. E. WILLIAMS.	M. PATON.
PAJARO, Watsonville.	D. M. CLOUGH.	L. B. JOHNSON.
SALINAS.	J. R. HEBBORN.	CLARA WESTLAKE.
SANTA COUNTY.		
BERRYESSA, Monticello.	J. W. SMITH.	S. H. BUTFORD.
CALIFORNIA.	W. B. PRATT.	C. H. MCNEVE.
NAPA, Napa City.	J. B. SAUL.	HARRY HASKELL.
RUPE VALLEY.	J. A. VAN ABSDALE.	C. A. BOOTH.
RUTHERFORD, Yntville.	G. S. HERRIDGE.	I. W. QUINN.
ST. HELENA.	J. L. WELLS.	CHAS. A. STORY.
YOUNTVILLE.	J. M. MAXFIELD.	G. GRIFFIN.
NEVADA COUNTY.		
INDIAN SPRING.	H. S. HATCH.	JOHN PERRY.
PLACER COUNTY.		
LYNOLIN.	J. J. WOODMAN.	E. P. TABOR.
NEWCASTLE.	WM. WILTZ.	H. G. HUBBARD.
ROSEVILLE.	A. D. NEHER.	ROBERT WARD.
SACRAMENTO COUNTY.		
AMERICAN R., Patterson.	J. A. EVANS.	E. G. MORTON.
COSUMES, Sheldon.	J. A. ELDER.	J. H. ATEINS.
ELK GROVE.	JULIUS EYERSON.	DELOS GAGE.
ENTERPRISE, Brighton.	G. I. MARTIN.	A. ROOT.
FLORIN.	L. FASSETT.	
FRANKLIN.	AMOS ADAMS.	P. R. BECKLEY.
GALT.	J. C. SAWYER.	J. L. FIFIELD.
GEORGIANA, Rio Vista.	J. POOL.	J. WORSHAM.
SACRAMENTO.	W. S. MANLOVE.	E. H. BOGGS.
SHERMAN, I. Emington.	A. J. BIGELOW.	
SAN BERNARDINO COUNTY.		
MOUNTAIN, San Benito.	G. BUTTERFIELD.	JOHN BROWN.
HOLLISTER.	R. ROCKLEDGE.	T. J. STOCKTON.
SAN BERNARDINO COUNTY.		
RINCON, Chino.	M. SLAUGHTER.	JOHN TAYLOR.
VERMILION.	W. B. RUSSELL.	G. W. CARRELON.
SAN BERNARDINO.	GEO. LOR.	H. GOODILL, JR.
SAN DIEGO COUNTY.		
BALENA.	C. O. TUCKER.	MRS. C. O. TUCKER.
BEAR VALLEY.	H. H. DUNWIDIE.	C. H. MOSELEY.
BERRA.	Z. NIELSEN.	T. DUNCAN.
NATIONAL RANCH.	F. A. KIMBALL.	S. T. BLACKMORE.
POWAY.	E. F. CHAPIN.	E. D. FRENCH.
SAN LUIS REY.	M. E. OMBRY.	L. J. CROMBIE.
SAN JACINTO.	T. D. HENRY.	MRS. M. COLLINS.
SAN JOAQUIN COUNTY.		
ATLANTA, Stockton.	SAN JACINTO, Mrs. J. W. MOORE.	
CASTORIA, Stockton.	F. J. WOODWARD.	JENNIE AYRELL.
COLLEGEVILLE.	P. P. WARD.	L. R. CHALMERS.
ELLIOT.	FRANK L. JOHNSON.	H. H. WITT.
FARMINGTON.	WM. J. JOHNSON.	E. O. LONG.
LIBERTY, Acampo.	JOHN S. WOOD.	C. C. PAULK.
LINDEN.	E. B. COGSWELL.	JAMES WASKLEY.
LOCKFORD.	E. P. MCNEEL.	F. O. MCGENIE.
LODI.	JOHN PARNOTT.	MRS. N. CROUCH.
LUCKY, Lathrop.	P. SUTMAN.	H. WILLIS.
STOCKTON.	T. C. KETCHUM.	E. H. ALLEN.
WASHINGTON.	S. S. SOLLARS.	M. L. COOK.
WEST S. JOAN, Ellis.	C. E. NEEDHAM.	J. QUACKENBUSH.
WILLOWOOD.	E. D. MORRISON.	W. W. MUNCEY.
WOODBRIDGE.	E. K. ROBERTS.	A. S. THOMAS.
SAN LUIS OBISPO COUNTY.		
ARROYO GRANDE.	W. H. NELSON.	B. J. WOOD.
CAMBRIA.	C. H. IVINS.	H. OLMSTEAD.
MORO CITY.	H. Y. STANLEY.	JAS. ALLEN.
OLD CREEK.	C. SWAIN.	CHAS. S. CLARK.
PASO ROBLES.	H. W. RYNE.	JOHN THOMSON.
SAN LUIS OBISPO.	GEO. STEELE.	
SUMMIT, Paso Robles.	J. V. N. YOUNG.	A. T. FOSTER.
SAN MATEO COUNTY.		
CRESCENT.	H. M. WELLS.	JAMES COMPTON.
LA HONDA.	M. WOODHAM.	J. E. WOODHAM.
OCEAN VIEW.	I. G. KNOWLES.	E. ROBSON.
PESCADERO.	B. V. WEEKS.	H. B. SPRAGUE.
SAN MATEO.	A. F. GREEN.	O.

NEW CROP OF
BLUE GUM SEED.

GRASS AND CLOVER SEEDS.

FLOWER AND VEGETABLE SEEDS.

TREE AND FRUIT SEEDS.

OF EVERY DESIRABLE VARIETY AND OF THE
BEST QUALITY; OFFERED AT WHOLE-
SALE OR RETAIL, BYGEO. F. SILVESTER,
SEEDSMAN,No. 317 Washington Street,
SAN FRANCISCO

1874. GUIDE AND CATALOGUE 1875.

FREE.

To persons contemplating purchasing I will send
my ILLUSTRATED, DESCRIPTIVE CATALOGUE AND GUIDE
to the VEGETABLE AND FLOWER GARDEN WITHOUT
CHARGE. It contains the most extensive and valuable
list ofFlowering Bulbs, Roots and Plants, Semi-
Tropical Trees, Ornamental Shrubs, Fruit
and Shade Trees, etc., ever offered in this market.
It tells how to successfully grow the Australian
Blue Gum, the Monterey Cypress, Pine,
etc., and the proper method of Cultivating To-
bacco on this Coast.My stock of Seeds is in part my own raising
and in part direct importations from the best Euro-
pean and Eastern growers, and is unsurpassed in all
respects by that offered by any other establishment.
100,000 Australian Blue Gums and Mon-
terey Cypress in boxes at from \$30 to \$50 per
1,000, raised at my own Nursery at San Rafael.

R. J. TRUMBULL,

Grower, Importer, Wholesale and Retail Dealer in
Seeds, Shrubs, Trees, etc.

2078-6m-16p 427 Sansome street, S. F.

Bronze Turkeys

12 Gobblers from 8
to 20 months old,
22 to 40 lbs each,
for sale now.
Hens 14 to
18 lbs.

Emden Geese

40 to 50 pounds
per pair at ma-
turity.BLACK
OAYUGA DUCKS,Games, Brahmas, Leghorns, Houdans, Ban-
tams, etc.Eggs, fresh, pure, true to name; well-
packed so as to hatch after arrival.

For Illustrated Circular and Price-List, address

M. EYRE, Napa, Cal.

FERRETS. RABBITS. PIGEONS.

Please state where you saw this advertisement.

FARMERS' UNION.

SUCCESSOR TO A. PFISTER & CO.,

Cor. Second and Santa Clara Sts., San Jose.

CAPITAL, - - - - - \$100,000.

WM. EYRESON, - - - - - PRESIDENT

H. E. HILLS, - - - - - MANAGER

Directors: - Wm. Eyrson, L. F. Chipman, Horace Little

J. P. Dudley, David Campbell, James Singleton, Thomas

E. Snell, O. T. Settle, E. A. Braley.

Will do a General Mercantile Business, also receive De-
posits, on which such interest will be allowed as may be
agreed upon, and make Loans upon approved security.

Dewey & Co. { 224 } Patent Agt's.

{ SANSONE ST }

HAY and WOOL
PRESSES.The Fastest, Strongest, and Best Portable Hay Press in the
World is the

PRICE, or PETALUMA PRESS.

400 in Use.

Bales from 12 to 20 tons per day.

Price, \$450, Cash.

The Most Simple, Compact and Effective Cheap Press Known is the

IMPROVED ECLIPSE,

Eight feet six inches high. Weighs 2,000 pounds. Bales from 10 to 18 tons
per day. Price, \$300, Cash.

The above machines are delivered at the Factory, San Leandro, Cal.

For further information or for illustrated circulars that answer all questions relating to the above Presses

Address Price Press Co.,

Office with BAKER & HAMILTON, 17 Front Street, S. F.

Grangers' Bank of California.

(Incorporated April 27th, 1874.)

Offices, 415 California street, San Francisco.

CAPITAL authorized, \$5,000,000, in 50,000 shares of
\$100 each. Subscribed, \$2,568,700. (Number of
shareholders, 1,571). Paid up, \$481,200.DIRECTORS—J. V. WEBSTER, President; CALVIN J.
CRESSEY, Vice-President; C. S. ARBOTT, J. P.
CHRISMAN, G. W. COLBY, J. H. HILL, J. LEWEL-
LYN, THOS. MCCONNELL, J. C. MERRYFIELD, A. F.
WALCOTT, F. J. WOODWARD.OFFICERS—Managing Director, CALVIN J. CRESSEY;
Cashier, ALEXANDER WATSON; Secretary, FRANK
A. CRESSEY.The bank was opened on the 1st of August, 1874,
for the purpose of affording additional banking
facilities to the producers of the State, and for
the transaction of ordinary banking business.CURRENT ACCOUNTS are opened and conducted in the
usual way, and interest allowed on the minimum
monthly balance at the rate of three per cent. per
annum.CERTIFICATES OF DEPOSIT are issued in sums of
\$50 and upwards, payable on 30 days' notice of
withdrawal, bearing interest at rates varying
with the current rate of discount.TERM DEPOSITS are received in gold, silver or cur-
rency, and interest allowed as follows, namely:
Three months, six per cent. per annum; six
months, seven per cent. per annum; one year,
eight per cent. per annum.COLLECTIONS are made throughout the State on the
most favorable terms.DISCOUNTS—The bank advances on real estate in the
different counties, on merchandise and grain in
warehouse, etc., with a fair margin, charging a
uniform rate of one per cent. per month. Dis-
count days, Tuesday and Friday.

ALEXANDER WATSON, Cashier.

California Farmers Mutual
Fire Insurance Association.

Office, 6 Leidesdorff St., - San Francisco.

Directors:

A. WOLF, A. W. THOMPSON, I. C. STEELE,
I. G. GARDNER, J. C. MERRYFIELD, J. D. BLANCHARD,
G. P. KELLOGG, Treas.

Finance Committee:

I. G. GARDNER, J. C. MERRYFIELD, A. W. THOMPSON

Trustees:

J. M. HAMILTON, Lake Col. C. STEELE, San Mateo Co
J. C. MERRYFIELD, Solano Co. A. B. NALLEY, Sonoma Co
G. W. COLBY, - Butte Co. O. S. ARBOTT, S'ta Barba Co
H. B. JOLLEY, - Merced Co. A. W. THOMPSON, Sonoma Co
A. WOLF, San Joaquin Co. E. W. STEELE, S.L. Obispo Co
J. D. BLANCHARD, Pres't. W. H. BAXTER, Sec'y.This association is organized for the purpose of af-
forded the farmers of this State the means of safely
insuring against loss by fire, at actual cost of insurance,
without being connected with city risks. a822-tf

IMMIGRANT BUREAU.

J. EARL, Manager.

I. G. GARDNER, Assistant.

123 California Street,

Second Floor, - - - - - San Francisco, Cal.

To the Immigrants Seeking Homes,
Labor and Information.There is ample room in our State for all that are
arriving to find homes, and there is plenty of work for
willing hands to do. By the information we expect to
give through this Bureau, we anticipate no difficulty in
finding homes and employment for all who may come.
This office will be furnished with maps of Government
and other desirable lands for sale, with full informa-
tion relative to location, soil, climate, etc.The simple object of the Bureau is to protect the
interests of Immigrants, giving reliable information
where the new comer can find employment, and homes
on lands with perfect title, free of charge; and since
the Bureau will be in correspondence with reliable or
similar Bureaus throughout the State, it cannot fail to
accomplish the object intended.MAYOR JAMES OTIS,
I. FRIEDLANDER,
C. J. CRESSEY,
C. ADOLPHE LOW,
JOHN MORTON.

J. EARL, Manager.

LOOK!

ALBERT E. BURBANK, Import-
er and Breeder of Fancy Fowls,
Pigeons, Rabbits, etc. Also Eggs
for hatching from the finest of im-
ported stock. Eggs and Fowls at
reduced prices. Send for Price
List.ALBERT E. BURBANK,
1v8-3m 43 & 44 Cal. Market S.F.

GEO. B. BAYLEY,

IMPORTER AND BREEDER OF

Jersey Cattle,

Choice Poultry, Etc.

OAKLAND

Poultry Yards,

Cor. 16th & Castro Streets, Oakland.

Send stamp for circular, containing a full description of
all the best known and most profitable fowls in the county.G. B. BAYLEY,
P. O. Box 659, San Francisco.

N. B.—A car-load of Jersey Cattle to arrive in June.

DAVID WOERNER,



COOPER,

No. 104 and 112 Spear St., San Francisco.

Wine Casks, Tanks, Tubs, Pipes, Beer Bar-
rels, etc., Manufactured at Short Notice
and LOW RATES.LUMBER for OAKS, etc., TANKS, etc. Steamed
and Dried if required. cow-bp.

IRRIGATED LANDS.

Sure Crops and Large Yields—Water Com-
munication with San Francisco and
Cheap Freights.

WILL SELL

Three (3) Tracts of Land on Staten Island. The Jersey
Tract, 4,000 acres, on San Joaquin River. The Brad-
ford Tract, 2,230 acres, on San Joaquin River. Also,
offer other Tule Lands in tracts to suit purchasers.These are the most desirable grazing and farm
lands in the State. Partly cultivated, improved and
easy of access.L. C. McAFEE, Real Estate Agent,
411 1/2 California street, Room 4, S. F.

M. FALLON,

Cor. Seventh & Oak sts.,

OAKLAND, CAL.

Light & Dark Brahmas,
Buff, White and Par-
tridge Cochins,
Spangled, Golden and Silver Polish,
Spangled, Golden and Silver Hamburgs,
Pure White-faced Black Spanish,
White and Brown Leghorns,
Silver Grey Dorkings,
Houdans, Silkies, Black-Red Games,
Bronze Turkeys, Rouen and Aylesbury Ducks.

All from Premium Stock of Best Strains.

Fowls of above varieties for sale; also, Chickens in their
season. Eggs packed with care and sent in rotation as
orders are received. 1v9-16p-tfDavis & Sutton, Commission Merchants,
For California Fruits; also for the sale of Butter, Eggs
Cheese, Hops, Green and Dried Fruits, etc., 75 Warren
street, New York. Refer to Anthony Halsey, Cashier,
Traders' National Bank, N. Y.; Ellwanger & Barry,
Rochester, N. Y.; C. W. Reed, Sacramento, Cal.; A
Lusk & Co., Pacific Fruit Market, San Francisco, Cal.

Calistoga Real Estate Company.

Calistoga, with a population of about 800 persons,
is a village watering place at the head of the valley of
Napa, in California. It is four hours' travel north of
San Francisco by steamboat and rail.Its shipping port is Vallejo, on the bay of San
Francisco, forty miles distant by rail. It lies at the
head of the most charming valley in the State.

THE BEAUTIES OF NAPA.

In traversing this thirty-seven miles of fertile dale,
the eye never wearies. If one ascends the sides of the
leafy mountains that bound the valley on either side,
whether looking up the valley or down, and from
whatever point of view, the scene is one of ravishing
beauty.Mounting the summit of St. Helena, which towers
over all, far to the east the snowy Nevada's bound the
view; and to the west spreads the Pacific ocean, with
its winged ships and its blue horizon. To the north
are the vast forests of Mendocino, its statoly trees,
turned to shrubbery and Clear Lake in its pride of
expanse dwindled to a mill dam.

THE WARM SPRINGS.

From the beauties of Calistoga we turn to its other at-
tractions. The estate covers 2,000 acres of fertile
land. Its warm springs are crowded with invalids,
who flock to its healing waters, and who return cured
of their rheumatism, their dyspepsia, their torpid
livers and their tender kidneys. The medicinal ele-
ments of the hot springs are principally iron, magne-
sia and sulphur. In this climate, the season of water
ing places is prolonged.

THE SURROUNDINGS.

By consulting a map it will be apparent that Calis-

toga is destined to become a commercial town of im-
portance. It is the center to which converge innum-
erable highways leading to many of the richest cul-
tivated valleys of California.

INDUSTRIAL ENTERPRISES.

A new industry is now being introduced at the head
of the valley of Napa, which will give easy employ-
ment to all the boys and girls, and contingently it will
support other new industries. It is but the beginning
of many others. Three miles below Calistoga is se-
lected as the site of a large factory for saving and canning
fruits and vegetables that now go to waste, and encour-
aging the production of more. In no part of Califor-
nia can these healthful elements of human food be cul-
tivated more cheaply or more abundantly. Consider-
ing the depth of its rich soil, its prolonged season, and
the extraordinary vegetable growth in this country, one
acre may be considered equal to three wherever this in-
dustry is carried on in the Atlantic States. If irriga-
tion be wanted, artesian waterflow may surely be found
all along the valley, for it is backed by mountain
ranges full of living waters.

MINES:

GOLD AND SILVER AND QUICKSILVER.

Calistoga is the center also of a great mountain range
rich in mines of cinnabar and silver. Already its fur-
naces are producing mercury, and the product is in-
creasing yearly. A number of valuable mines are now
being profitably developed in the region around the
base of Mt. St. Helena, at Pine Flat, on the Great Gey-
ser road, and near Sillies' Mill, on the Clear Lake road.
All of these are from ten to fifteen miles beyond Calis-toga, to which point their products come, and from
which their supplies are carried. The deposits of cin-
nabar occur in well defined veins, and as they are now
being scientifically developed they bid fair to rival in
productiveness the celebrated mines of New Almaden.

CALISTOGA REAL ESTATE CO.

First grand auction sale will be held on the tract on
Wednesday, August 4th, 1875, at 12 o'clock M. Those
holders purchasing at the sale will be credited with
the amount paid on their stock, and still share in the
profits of the company.The splendid property above described, containing
2,082 acres, divided into town lots, suburban lots,
country seats, hotel property and farm tracts, has been
bought by the above named company, and is now
offered for sale to the public.

The Capital Stock of the Company is

\$1,000,000,

Divided into 20,000 Shares of \$50 Each.

The sale of a certain number of shares has been
authorized by the Board at the rate ofTwenty-five Cents on the Dollar, Making
12.50 Per Share.By an arrangement between the former owner and
the present company, no portion of this land or the
proceeds of its sale, is consumed by expenses or in even
the smallest degree diverted from the use and benefit
of the stockholder.Whoever buys Stock in the Company receives his
pro rata share of this property, with its Crops and
Rents in the meantime, without one cent of deduction
for expenses of any kind, even including Taxes. And
this, too, no matter how valuable the property shall
become.Unlike the homestead schemes which have hereto-
fore attracted our people, this plan gives homes and
interests in and adjoining a town already built; where
trade and growth are already assured, and where daily
increase gives promise of greatly added values to all
its property. It is a division of this ripened heritage
that is now offered to the subscribers.

TRUSTEES:

E. W. BURR,
President Savings and Loan Society.C. HARTSON,
President Bank of Napa.J. B. FRISBIE,
President Vallejo Commercial Bank.JULIUS WETZLAR,
Pres. Capital Savings Bank, SacramentoCOLONEL J. P. JACKSON,
San Francisco.

WILLIAM H. MARTIN,

GENERAL AGENT,

No. 1 Webb Street, cor. California, S. F.

Tenth Industrial Exhibition of the Mechanics' Institute, S. F., 1875.

PRELIMINARY ANNOUNCEMENT.

The Board of Managers of the Tenth Industrial Exhibition have the pleasure of announcing that an Industrial Exhibition will be held, under the auspices of the Mechanics' Institute, in the city of San Francisco, to be opened on Tuesday, the 17th of August, 1875, at 11 A. M., and to continue open at least one month thereafter.

In making this public announcement, the Managers desire that those who intend to exhibit should send in their applications for space as early as possible, so as to avoid the necessity of excluding, as has been the case heretofore, the many desirable exhibitors who are unusually tardy in making applications.

The forthcoming Industrial Exhibition will be the tenth held under the auspices of the Mechanics' Institute, and the Managers are justified in saying that it will undoubtedly surpass in completeness of detail and general arrangement any heretofore held.

The last Exhibition was attended by 700,000 visitors, attracted hither by the fame of these Industrial Fairs, and for the purpose of investigation, business and pleasure.

All the available exhibiting space was applied for several weeks before the day of opening, and the Managers were compelled to deny admission to many desirable exhibitors.

The Board of Managers desire particularly that the arts, the industries and natural products of the country should be well represented at the forthcoming exhibition, and no pains will be spared to make these classes of exhibits a special feature there.

The Exhibition will be held in the building constructed for that purpose in 1874, but it will be materially enlarged and improved in many details for the Exhibition of 1875.

The space under roof will exceed 180,000 square feet, or about four and a half acres, exclusive of the Horticultural Garden, which will occupy 24,500 square feet additional.

The location of the Exhibition Building, on Eighth street, between Market and Mission streets, cannot be surpassed for convenience and accessibility, and can be approached from every part of the city by means of the various lines of street railroads, any of which bring visitors within two blocks of the entrance gate.

The utmost care has been exercised in providing for ample ventilation and light, and during the evening the building is brilliantly illuminated by over 5,000 gas lights.

The promenade avenues are broad, and 3,000 seats are provided for the comfort of visitors, for whose convenience there is also an excellent restaurant, under the management of a first-class restaurateur.

Every afternoon and evening the best orchestra the city can supply will discourse excellent music under the direction of an accomplished leader.

The building is always well attended by visitors, and during the last Exhibition over 29,000 were daily admitted for a number of days, and under no similar circumstances can the manufacturer, the mechanic, the inventor, producer or business man so advantageously place himself before the people of the Pacific Coast.

Persons desiring to obtain information, or to make application for space, should address "Managers of Tenth Industrial Exhibition, San Francisco, California," or make personal application as below.

It is expected that the various transportation companies will convey goods intended in good faith for exhibition, at half the usual rates.

Exhibitors from abroad, if they have no agent or consignee in San Francisco, can consign goods and mark the same to the "Manager of the Tenth Industrial Exhibition, 17 Post street, San Francisco," and they will be stored, if they arrive before the day of opening, free of expense; but no charges or expenses for freight or forwarding, etc., will be paid by the Managers.

In order to secure space, application should be made on or before July 20th, 1875.

Blanks will be furnished on application. Premiums will be awarded as follows, viz: 16 gold medals, 50 silver medals, Society Diplomas, Certificates of Merit and Special Premiums, as the Board may determine.

Blanks for space can be obtained at the Mechanics' Institute on application by letter or otherwise; and any information will be given, by applying to any member of the Board of Managers, as below:

A. S. HALLIDAY.....	113 Pine street.
JAMES C. PATRICK.....	122 Battery street.
HENRY L. DAVIS.....	421 California street.
D. E. HAYES.....	213 Fremont street.
ASA R. WELLS.....	Mechanics' Mill.
P. B. CORNWALL.....	Cor. Spear & Harrison streets.
CHAS. ELLIOT.....	516 California street.
GEORGE FAULDING.....	414 Clay street.
RICHARD SAVAGE.....	139 Fremont street.
W. P. SPOUT.....	604 Merchant street.
J. P. MACDONALD.....	217 Spear street.
J. P. CURTIS.....	320 Jackson street.
R. B. WOODWARD.....	Woodward's Gardens.
JAMES SPIERS.....	311 Howard street.

Rules and Regulations of the Tenth Industrial Exhibition, Mechanics' Institute, S. F., 1875.

1. The Pavilion will be open for the reception of goods on Monday, August 2d. The exhibition will be open to the public on Tuesday, August 17th, at 11 o'clock A. M.

2. Applications for space must be made on or before July 20th, stating character of exhibit, amount and kind of space required—wall, table or floor. And, if cases, state length, width and height of case. Blanks will be furnished for this purpose, and a clerk will be in attendance at the Library of the Mechanics' Institute, every day from 12 to 1, and 7 to 10 P. M.

3. All persons presenting articles for exhibition must have them registered by the Receiving Clerk, who will give a receipt for the same, which receipt must be presented when the articles are withdrawn, at the close of the Exhibition.

4. Judges will be appointed by the Board of Managers, immediately upon the opening of the Exhibition, to examine all articles presented, in accordance with Article III, and the Managers will award premiums on such articles as the judges shall declare are worthy, which will be delivered as soon as they can be prepared. Due notice will be given of the announcement of premiums.

5. The mornings of each day, until 10 o'clock, will be appropriated to the Judges, and no visitors will be admitted during the time thus appropriated, except at the special request of the Judges, or by permission of the Managers.

6. Articles intended for sale may be labeled accordingly, but cannot be removed until the close of the Exhibition, except by written permission of the Managers.

7. Steam power will be provided, so that machinery of all kinds may be seen in actual operation, and every facility possible will be given to exhibit working machinery to the best advantage.

8. The name of every article must be attached by the exhibitor to it.

9. Articles intended for exhibition must be entered and placed on exhibition on or before Saturday, August 21st.

10. Perishable articles will be received, or may be removed at any time during the exhibition, with the consent of the Managers.

11. The most effectual means will be taken, through the agency of the Police and otherwise, to guard and protect the property on exhibition; and it will be the purpose of the managers that all articles shall be returned to the owners without loss or injury. Still, all articles deposited will be at the risk of the owners.

12. In case of any misunderstanding, application may be made to the Managers, who will at all times be in attendance.

13. The Managers are desirous that articles should be presented early. Those from abroad, intended for exhibition, should be properly packed, and if not consigned to exhibitor's agent, must be marked, "MANAGERS OF TENTH INDUSTRIAL EXHIBITION, SAN FRANCISCO, CAL." All articles thus received, arriving too early, will be stored free of cost to the exhibitor, and the Managers will have them duly placed in proper position for exhibition. No freight charges will be paid by the Managers; but exhibitors are notified that arrangements are being made with various transportation companies to repay freight charges on evidence of goods exhibited.

Information will be furnished by addressing MANAGERS OF TENTH INDUSTRIAL EXHIBITION, SAN FRANCISCO, CAL.

BREEDERS' DIRECTORY.

PURCHASERS OF STOCK WILL FIND IN THIS DIRECTORY THE NAMES OF SOME OF THE MOST RELIABLE BREEDERS. OUR RATES—Six lines or less inserted in this directory at 50 cts a line per month, payable quarterly.

CATTLE.

R. ASHBURNER, Baden Station, San Mateo Co., Cal., breeder of Short-horn cattle. Pure Bred Bulls for sale, from cows of choice milking strains.

J. BREWSTER, Galt Station, Sacramento Co., Cal., breeder of Short-Horn Cattle.

J. D. CARR, Gabilan, Monterey Co., Cal., breeder of Trotting Horses, Short-Horn Cattle, Thoroughbred Spanish Marino Sheep and Swine.

A. MAILLARD, San Rafael, Marin Co., Cal., breeder of Jerseys. Calves for sale.

W. L. OVERHISER, Stockton, San Joaquin Co., Cal., breeder of Short-Horn Cattle and Berkshire Swine.

PAGE BROTHERS, 304 Davis street, San Francisco, (or Cotate Ranch, near Petaluma, Sonoma Co.): Breeders of Short-Horn and their Grades.

STANTON & POWERS, Sacramento, Cal. Breeders of Jersey Heifers and Bull Calves at low rates. Address L. C. Powers, Sacramento, Cal.

MOSES WICK, Oroville, Butte Co., Cal., breeder of Short-Horn Cattle. Young bulls for sale.

SHEEP AND GOATS.

H. F. BUCKLEY, Hopeton, Cal. Thoroughbred also 3/4 and 1/2 Cotswold grade sheep.

MRS. ROBERT BLACOW, Centerville, near Niles Station, Alameda Co., Cal. Pure-Blooded French Merino Sheep for sale.

N. GILMORE, El Dorado, El Dorado Co., Cal., importer and breeder of Angora Goats.

LANDRUM & ROGERS, Watsonville, Santa Cruz County. Pure-Bred Angora Goats and Cotswold Sheep for sale.

SEVERANCE & PEET, Niles, Alameda Co., Cal., breeders of Thoroughbred Spanish Merino Sheep.

A. G. STONESIFER, Hill's Ferry, Stanislaus Co., Cal., breeder of Pure-Blooded French Merino Sheep.

L. U. SHIPPEE, Stockton, Cal. Importer and Breeder of Spanish Merino Sheep, Durham Cattle and Essex Swine.

POULTRY.

GEO. B. BAYLEY, Cor. 16th and Castro streets, Oakland, Cal. Imported Brahmas and other choice Fowls for sale.

ALBERT E. BURBANK, 43 and 44 California Market, San Francisco, importer and breeder of Fancy Fowls, Pigeons, Rabbits, etc.

M. EYRE, Napa. Bronze Turkeys, Emden Geese, Choice Fowls, Pigeons, Rabbits, Ferrets.

WILLIAM KNOWLES, Brooklyn, Alameda Co., Cal., has for sale Eggs for Hatching, carefully packed, from pure-bred Bronze Turkeys, at \$7.50 per dozen; Brown Leghorns at \$4.00 per dozen; Houdans, White Leghorns and Buff Cochins at \$4.00 per dozen; two dozen for \$5.00. Sent C. O. D. to any address.

Mrs. L. J. WATKINS, Santa Clara. Premium Fowls. White Leghorn, S. S. Hamburg, Game Bantams, and Aylesbury Ducks. Also, Eggs. 21v3-3t

Live Stock Notices.

GABILAN HERD

SPANISH MERINO SHEEP.

I have just purchased of Mr. George Hammond, of Vermont, three car-loads of Spanish Merino Sheep, (335 head, Ewes and Bucks) which, with others that I purchased last Fall, (also direct from Vermont) makes my band of Thoroughbred Spanish Merinos about 650 head.

I am prepared to sell both Bucks and Ewes, of Pure Blooded Spanish Merino—as good as can be had in the world—so says Mr. Hammond. Parties interested will please give me a call. I am ten miles from Salinas City, Gabilan P. O., Monterey county.

J. D. CARR.

N. B.—I have also Good Graded Bucks for sale, and can dispose of some Good Graded Ewes. J. D. C.

FOR SALE.

400 Pure Blood French Merino Rams,

On the Oristimba Ranch, six miles west of Hill's Ferry, Stanislaus County, Cal. All Rams delivered at the railroad, free of charge. Terms easy and prices liberal.

A. G. STONESIFER.

E. W. WOOLSEY,

BREEDER OF



Thoroughbred Spanish Merino Sheep,

From Vermont Premium Stock,

At Berkeley, Alameda County. Horse cars every half hour from Broadway Station, Oakland.

CITY OFFICE, 418 CALIFORNIA STREET, S. F.

N. GILMORE
IMPORTER
AND BREEDER



SULTAN SECOND.

Angora or Cashmere Goats of pure blood and all grades for sale in lots to suit purchasers. Location, four miles from Railroad Station, connecting with all parts of the State. For particulars, address N. Gilmore, El Dorado, El Dorado County, Cal.

Thoroughbred Spanish Merinos

FOR SALE.

60 one and two-year old Thoroughbred Spanish Merino Rams, California bred, from Ewes imported from Vermont, and sired by Severance & Peet's Celebrated Ram "Fremont," and by their Ram "Green Mountain," which took the first premiums at the Bay District and State Fairs. Last shearing—35 1/2 lbs.—years' growth.

Also, about 100 Ewe and Ram Lambs, all of "Green Mountain" Stock, bred this year.

B. F. WATKINS,

Santa Clara, Cal.

12 Short-Horn Bulls,

fat and sleek, thoroughbred, just from Kentucky, at SAXE'S Stables, 35 Ritch Street, between Folsom and Harrison, two blocks from Grand Hotel. Inquire at SAXE'S Stables, or Room 32 Ruas House. 3v3-3m

A NEW DISCOVERY

To Save Time and Labor.

The Magical Effect of

ENGWER'S PURE BORAX SOAP

Is wonderful. Washes without much rubbing. Every one knows the value of

AMMONIA and BORAX

For Washing Purposes;

This Borax Soap is principally composed of the combination of the two ingredients, so that it entirely does away with hard labor. A trial will convince any one of its superior qualities. Warranted to give satisfaction and not to injure the finest fabric. Ask your Grocer for

Engwer's Pure Borax Soap.

IF HE DOES NOT HAVE IT, ASK HIM TO GET IT.

GRANGER SOAP.

Once Used, Always Used.

Manufactured by

FALKINBURGH & CO.,

Oregon Street, near Front, San Francisco, Cal

The National Gold Medal

WAS AWARDED TO

BRADLEY & RULOFSON

FOR THE

BEST PHOTOGRAPHS

IN THE

UNITED STATES,

AND THE

VIENNA MEDAL

FOR THE BEST IN THE WORLD.

No. 429 Montgomery Street,

San Francisco, Cal.

Geo. W. Chapin, Real Estate Agent, 434 Montgomery St., San Francisco, has and sells Ranches in all parts of the State. City Real Estate exchanged for country property. MONEY LOANED. Post Office Box 1120

Nurserymen.

PEPPER'S NURSERIES.

(Established in 1858.) PETALUMA, CAL.

Green Houses and Tree Depot corner Washington and Liberty streets.

4 Green Houses. 3,000 feet of Glass. Fruit Trees a Specialty.

We offer for sale at lowest market rates a general assortment of Fruit and Shade trees, small Fruits, Vines etc. Evergreen trees and Shrubs in great variety. Green House, Conservatory and Bedding Plants, Roses, etc. Eucalyptus in variety. Eucalyptus Globulus, per 1000 for free-planting, at very low rates. Catalogue and price list furnished on application.

Address,

W. H. PEPPER,

19v8-tf

Petaluma, Sonoma Co., Cal.

SUPERIOR FRUIT TREES

TRUE TO NAME.

A fine collection of Evergreen and Deciduous Trees. Australian Gum Trees in variety, by the hundred or thousand. Monterey Cypress in quantities and sizes to suit all. Orange and Lemon Trees at reduced prices. A general variety of Nursery stock.

Also, Rhubarb and Asparagus root.

T. CORLEY,

8v29-tf

315 Washington Street, S. F.

Seedsmen.

CHAS. F. CRESWELL,

SEED AND PLANT MERCHANT,

Victoria, Tasmania, and New South Wales.

The Largest Collector and Exporter of the Eucalyptus Globulus (Tasmanian Blue Gum).

C. F. C. having Branch Houses in the three Chief Colonies, and botanical collectors throughout Australia, can offer the best advantages to dealers in Australian Native Seeds, Plants and Ferns.

Eucalypti and Acacia Seeds in endless variety and of the most excellent quality.

His most convenient branch for exporting to Europe and America is found by addressing to

C. F. CRESWELL, Seedsmen.

No. 37 Swanston Street,

Melbourne, Victoria.

SEEDS.

PLANTS.

OF EVERY VARIETY.

Fresh and reliable, such as experience and care only can select.

GRASS AND CLOVER SEEDS, KENTUCKY BLUE GRASS, HUNGARIAN, ORCHARD, ITALIAN RYE, RED TOP, TIMOTHY, MESQUIT, SWEET VERNAL, ORANGE CALIFORNIA ALFALFA, WHITE CLOVER, RED CLOVER, Etc.

Also, RAMIE, JUTE and TOBACCO SEEDS; together with a fine and complete collection of TREE SEEDS, AUSTRALIAN BLUE GUM, SEQUOIA GIGANTEA, PINUS INSIGNIS, Etc.

For Sale, wholesale or retail, by

B. F. WELLINGTON,

(Successor to E. E. Moore).

425 Washington St., San Francisco. 22v7-ly

Office of Drain Pipe Works,

S. W. Corner Sacramento and Montgomery Streets, S. F.

DRAINS

CONSTRUCTED

In any part of the State, and

Work Warranted

E. T. MENOMY
Proprietor.

bp-eow-1 yr

FARM HANDS.

The Grangers' Scandinavian American Employment Office

Has been removed from 6 Liederstorf to 608 Clay street, and Consolidated with the Pacific Coast Employment Office. This office is in constant communication with Grange Headquarters, and is the only one in the city conducted by members of the Order. Our facilities for furnishing MALE and FEMALE help of all kinds are unexcelled by any office in the city. Great care taken to select reliable help. Chinese Orders for Servants, in door and out, promptly filled.

In ordering help, be particular in describing work, wages, fare, etc., Real Estate and General Business Agency.

PHILIPS & FLIGGLE.

The Employment Office of Talbot & Co. has no connection whatever with the Granges.

I. G. GARDNER.

Agricultural Articles.

KIMBALL GAR, CARRIAGE

-AND-

AGRICULTURAL IMPLEMENT

MANUFACTURING CO.,

Cor. Bryant and Fourth Sts., San Francisco

The CALIFORNIA TUBULAR IRON AND WOOD FRAME HARROW—two, four and six-horse Iron Harrows, \$60, \$70 and \$75. Wood Frame Harrow, \$10 less on each size than the Iron.

The Harrow has an easy seat for the Driver. The middle section rests on three wheels with wings hinged on each side.

By use of Levers the Driver in his seat can raise or lower the Harrow, regulating at will the depth of the teeth in the soil, and in the same manner fold or raise the wings from the ground so as to drive from the road to the field, saving the use of a wagon.

Our CALIFORNIA SCRAPER is also made for the ease of the Driver, enabling one person to ride, manage the team and do the work.

Is adapted for leveling and preparing the surface of the soil for irrigation. And for making roads, removing dirt from ditches, cleaning barn yards, sheep corals, etc.

The IMPROVED EAGLE HAY PRESS—Best in use on this Coast. Cheap, Economical, Powerful, and easily repaired.

Will press bales weighing from 250 to 325 pounds, using less rope than any other press.

Three men with a good team of horses will bale from 10 to 15 tons per day.

Adapted for baling wool, hides, cotton, rags or moss. Price, \$250. Weight of press, 2,500 pounds. Please send for circulars.

O. OREGO.

S. C. BOWLEY.

CREGO & BOWLEY,

Importers and Manufacturers

-OF-

CARRIAGES and WAGONS,

No. 9 Merchant's Exchange,

CALIFORNIA STREET.....SAN FRANCISCO

Keep constantly on hand top and open Buggies, top and open Rockaways, Jump-seat Buggies, Track and Road Sulkeys, Skeleton Wagons, Basket Phaetons of the very latest styles and finest workmanship.

We would call particular attention to our fine stock of Light Road and Trotting Wagons, made to order by the following celebrated makers:

Charles S. Coffey, Camden, New Jersey;
Helfield & Jackson, Rahway, New Jersey;
Gregg & Bow, Wilmington, Delaware;
And the first-class makers, which we are prepared to sell on the most reasonable terms.

Also, a large assortment of single and double Harness, of the most celebrated makers:
O. Graham, New York; J. R. Hill, Concord; Pittkin & Thomas, Philadelphia.

Also, a full assortment of Dress and Light Blankets, Fur and Lap Robes, Whips, Halters, Surcingle, etc., at wholesale and retail.

CREGO & BOWLEY,

No. 9 Merchants' Exchange, California street,
24v5-3m San Francisco.

MATTESON & WILLIAMSON'S

AMERICAN CHIEF



GANG PLOW.

Took the Premium over all at the great Plowing Match in Stockton, in 1870.

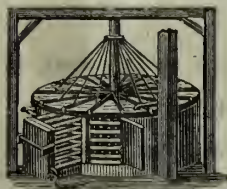
This Plow is thoroughly made by practical men who have been long in the business and know what is required in the construction of Gang Plows. It is quickly adjusted. Sufficient play is given so that the tongue will pass over cradle knobs without changing the working position of the shares. It is so constructed that the wheels themselves govern the action of the Plow correctly. It has various points of superiority, and can be relied upon as the Best and Most Desirable Gang Plow in the world. Send for circular to

14v2-3m

MATTESON & WILLIAMSON,
Stockton, Cal.

Plummer's California Fruit Drier.

PATENTED DECEMBER 29TH, 1874.



This is the Cheapest and Most Economical, Largest Capacity, and Most Speedy DRIER, and gives the fruit a better flavor than any other machine ever invented. 1st—It only requires a shed to work under; 2d—has boiler, engine, and steam pump for irrigating or other purposes, in connection with the Drier or separately; 3d—the cost is one-half less than any other of the same capacity, and there is no danger of burning the fruit. A sample machine is in full operation at our factory, No. 31 Beale St. Address, SPAULDING & BRO., San Francisco, Cal. Send for Circulars.

LANE & BODLEY,

John & Water Sts., Cincinnati.
Manufacturers of the Best

FARM ENGINE.

Mounted and ready for use. Send for our illustrated catalogue.

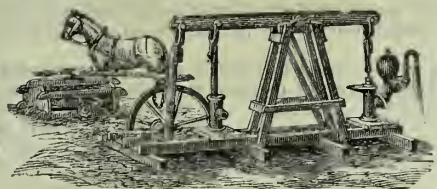
VINE AND FRUIT GROWERS,

TO RAISE LARGE CROPS

YOU MUST IRRIGATE.

To irrigate successfully, you must have the power that does not give out when the wind fails.

Laufkötter Bros. & Churchman's Horse-Power.



[PATENTED FEBRUARY 13TH, 1872.]
Never fails to supply more water than four or five Wind-mills, even supposing you had all the wind you want. It is also suitable for running light machinery, such as Barley Crackers, Corn Shellers, Fanning Mills, Grain Separators, or for Sawing Wood. They are never failing, cannot get out of order, easily worked, substantial, and always give satisfaction wherever they have been used. One horse can easily work two 6-inch pumps, with a continuous flow of water. Force Pumps, from 3,000 to 10,000 gallons per hour. WINDMILLS of all kinds manufactured to order. Wells Bored, Windmills and Horse-Powers set in any part of the State, and repairing of all kinds done.
Manufactured and for sale by

LAUFKÖTTER BROS.,

v7-2m-3m Cor. J and 10th Sts., Sacramento.

THE GRANGER ENGINE.

Farmers' and Threshers' attention is called to this splendid Engine. Especially adapted to burning straw, wood or coal. This is the only Engine in the market that is designed to run Derrick Forks by steam. The saving of fuel to run the Engine, and the men and horses dispensed with in running the Derrick Forks, will amount to the Price of the Engine in one season. Manufactured and sold by

J. L. HEALD, Vallejo.

Steam Power and Separator.

A large Boiler, Steam Engine, and first-class Buffalo Pitts' Separator, second-hand, in perfect running order, is offered for sale. Young horse stock of good style and pedigree (about 11 cwt.), also cattle and sheep, will be taken in part consideration.

Apply to

G. COOK,

Cordelia, Solano County,

Or to JOHN WHITE, 1000 Market St., San Francisco.

Farmers and Threshers

WISHING TO HAVE

Straw Burning Engines

For next season must engage them soon, as most of those now building are already sold. Threshing Engines for Repairs should be sent in now. A number of Second-hand Engines—taken in exchange for "Straw Burners"—for sale cheap. For particulars and prices, address:
H. W. RICE,
23v8-3m Haywood, Alameda County.

THE ALDEN

FRUIT PRESERVING COMPANY,
OF CALIFORNIA.

OFFICE, 426 MONTGOMERY ST., S. F.

Our improved apparatus will do one-third more work than that erected last season, while our prices have been materially reduced. A portion of the purchase money may be paid in the products of the Alden factories. We guarantee against infringements. The Alden is the oldest, the best and the cheapest process known for preserving fruits, vegetables, meats, etc.

It would be unwise to purchase the new and untried dryers before they have demonstrated their superiority by at least one year's regular work. Send for our circulars.

CARD.

EXCELSIOR FORCE PUMP greatly improved. COPPER LINED BRASS VALVES AND VALVE SEATS every way equal to a BRASS PUMP. PRICES reduced. Send for Circular. BRITTAN, HOLBROOK & CO., Agents.

5,500 ACRES



Of the best portion of the old NOMELACKEE RESERVATION, in Tehama County, for sale very low; only five dollars per acre; one-third down, one-third in one year and one-third in two years, with interest at one per cent per month. Will be sold all together or in two parcels. This is one of the finest tracts of grazing land in Northern California; is abundantly watered by numerous perpetual springs and has two miles of the Elder Creek, a clear mountain stream. Its grass never falls from drouth, and is of the best quality for sheep and has no clover burr. 800 acres of level plow land; timber for posts, fuel, etc. Enquire of ALLEN WILCOX, Los Angeles, or F. B. WASHINGTON on the tract, twenty miles west of Tehama.

Miscellaneous Notices.

LEVI, STRAUSS & CO.,

Patent Riveted

Clothing,

14 & 16 Battery St.,

San Francisco.



These goods are specially adapted for the use of FARMERS, MECHANICS, MINERS, and WORKING MEN in general. They are manufactured of the Best Material, and in a Superior Manner. A trial will convince everybody of this fact.

Patented May 12, 1873.

USE NO OTHER, AND INQUIRE FOR THESE GOODS ONLY. eow-bp

Rich Farm Land For Sale.

L. F. MOULTON, of Colusa,

OFFERS FOR SALE VERY CHEAP, THREE THOUSAND ACRES OF EXTRA GRAIN LAND, ADJOINING WHICH ARE NOW GROWING FIELDS OF GRAIN WHICH WILL YIELD FORTY BUSHELS TO THE ACRE.

This land is as good as any in the State, and will be sold very cheap.

Address the owner, at Colusa, for particulars.

CHARLES CLAYTON & CO.,

Commission Merchants

-IN-

GRAIN,

FLOUR

and WOOL,

N. E. COR. FRONT & CLAY STREETS,

SAN FRANCISCO.



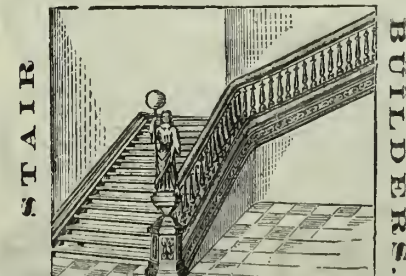
COOLING, REFRESHING, AND INVIGORATING ARE THE EFFECTS OF

ROWLANDS' KALYDOR

On the face and skin of all exposed to the scorching rays of the sun and heated particles of dust. It eradicates Freckles, Sunburns, Tan, and all Cutaneous Eruptions, and produces a beautiful and delicate complexion. In cases of stings of insects it is of the greatest value. Sold everywhere by all chemists, druggists, and patent medicine dealers.

Ask for Rowlands' Kalydor, of 20, Hatton Garden, London, and avoid imitations.

SANBORN & BYRNES,



Mechanics' Mills, Mission Street.

Bet. First and Fremont, San Francisco. Orders from the country promptly attended to. All kinds of Stair Material furnished to order. Wood and Ivory Turners. Billiard Balls and Ten Pins, Fancy Newels and Balusters. 25v8-8m-bp

SAN FRANCISCO
EMPLOYMENT OFFICE,
CROSETT & CO., Prop'rs,
623 and 625 Clay Street, S. F.

COUNTRY ORDERS FOR MEN almost invariably filled, and with FIRST-CLASS HELP. German, French, American and Scandinavian help, a specialty.

Farmers will secure men in any number desired, especially by giving a little timely notice. Hotels can always get the best of MALE or FEMALE HELP. We have the BEST OF FACILITIES FOR PROCURING DESIRABLE HELP. Send us your orders and we will endeavor to give you satisfaction in every particular at all times.

Dr. M. A. MORRELL'S



ABDOMINAL SUPPORTER.

When we take into consideration the vast amount of labor performed by the muscles of the Abdomen, we can readily see the necessity of mechanical assistance when for any cause they become weakened or relaxed. They are constructed on scientific principles, and will fit any form by adjusting the lacing as required. They are easily adjusted and comfortable to wear. Ladies who find it difficult to walk from heaviness or bearing down feeling will be greatly relieved by wearing them, and will be able to walk without inconvenience.

To Ladies who wish to retain their figure, the Supporter is indispensable after childbirth; also during the encephalic period it affords just the support required.

These Supporters are on sale at No. 327 1/2 Third street, San Francisco. Ladies not residing in the city can have the same forwarded to them, C. O. D., by forwarding 50 cents, prepay Express charges; and in case the Supporter does not give perfect satisfaction, the money will be refunded.

The price of the supporter varies from \$2.50 to \$10, according to quality of material.

In ordering, send the size around the top of the hips and the amount you desire to pay.

Address

Dr. M. A. MORRELL,

327 1/2 Third Street,

SAN FRANCISCO.

Union Box Factory,

GEO. W. SWAN & CO.,

115 and 116 Spear St., bet. Mission & Howard
SAN FRANCISCO.

Apple, Pear, Plum, Peach, Cherry, Grape, Orange, Lime and Wine Cases.

Tomato, Potato, Fig and Raisin Boxes.

Strawberry, Raspberry and Blackberry Chests and Drawers, and Baskets for all kinds of Berries.

Peach and Picking Baskets, Butter Chests and Boxes, Cheese Boxes, Square and Round Egg Carriers.

Drums for Figs, Cherries, Raisins, and for other Dried Fruits.

Free Packages—Boxes not to be returned—a good article, costing less than Sawed Boxes.

Lard Caddies, Coffee and Fruit Caddies.

Turkey and Chicken Coops, Bee-Hives, Etc.

Packing Boxes for Dry-Goods, Cigars, Candles, Candied Fruits, Honey, Macaroni, Orsckers, Sugar, Soap, Boots, Etc.

In fact, every style of Boxes manufactured in the Union, and turned out in the Best Style at Favorable Prices. Orders from the country well attended to

J. Y. WILSON.

WM. FAULL

W. L. MERRY

WILSON, MERRY & CO.,

Provision Packers

And Dealers in

SALTED AND SMOKED MEATS,

Lard, Etc.

PROP'S BLACK POINT PACKING HOUSE.

We respectfully call the attention of Farmers and Stock Raisers to the fact that we are always prepared to purchase hogs, cattle and sheep at full market prices, for Cash, and shall be glad to answer promptly any inquiries addressed to us on the condition of the Market.

Office No. 223 Sacramento St., Near Front,
San Francisco.

H. K. CUMMINGS,
1858.H. H. RALSTON,
1875.

HENRY K. CUMMINGS & CO.,

Wholesale Fruit and Produce Commission House,
ESTABLISHED 1858.

No. 424 Battery street, southeast corner of Washington, San Francisco.

Our business being exclusively Commission, we have no interests that will conflict with those of the producer.

SUPPORT HOME INDUSTRY.

WHEATEN STARCH,

MANUFACTURED BY

J. JOHNSTON,

SAN JOSE, - - - - CALIFORNIA.

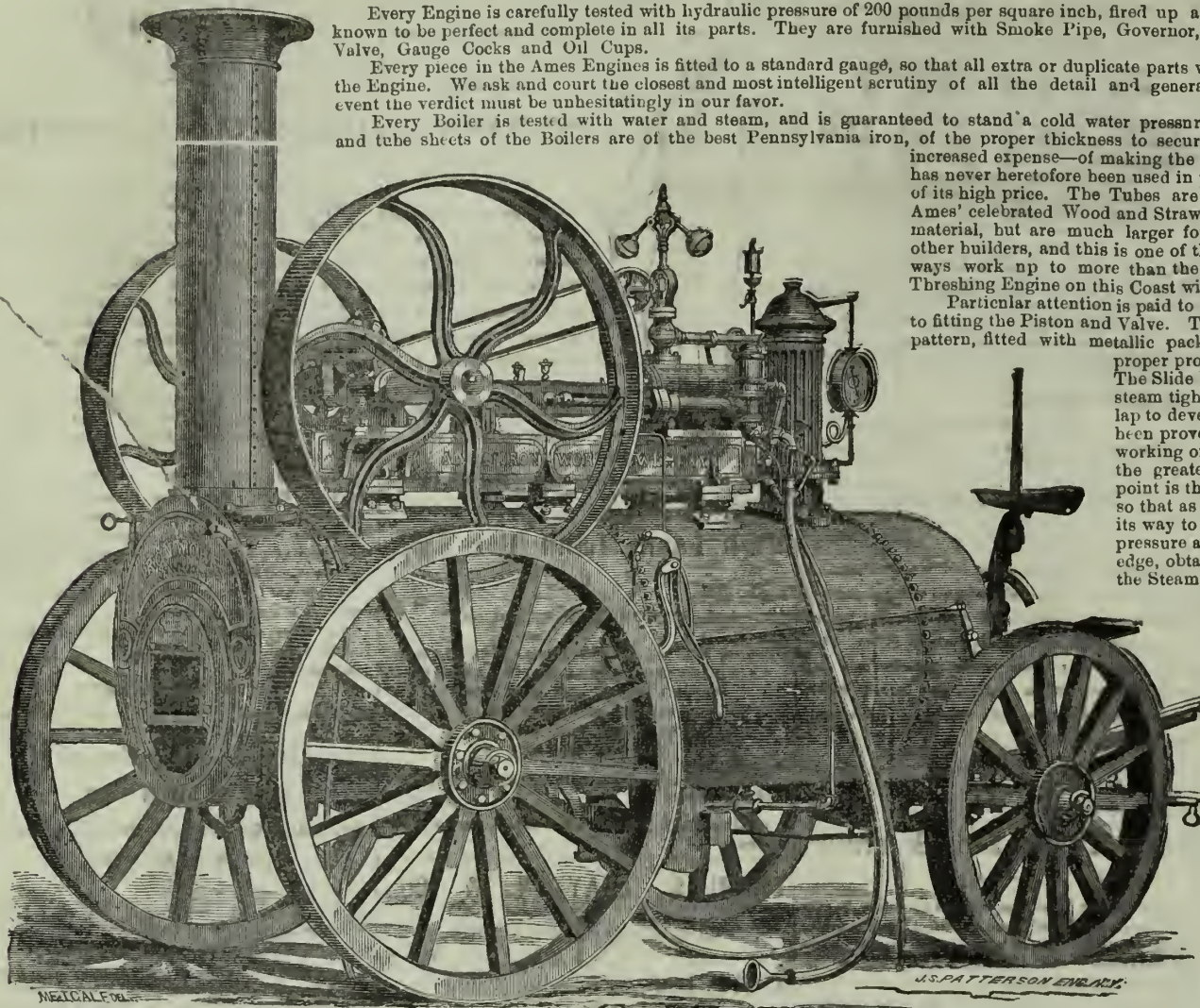
This starch is made from the best of wheat, and is used by the laundries and hotels, who pronounce it Superior in Strength and Fine Satin Gloss to any imported starch—one pound being equal to one and a half pounds of Eastern starch.

\$25 a day guaranteed using our Well Auger & Drills. \$100 a month paid to good Agents. Auger book free. J. J. Auger Co., St. Louis, Mo.

120

AMES' CELEBRATED STRAW AND WOOD BURNING ENGINES.

BEST AND MOST COMPLETE THRESHING ENGINES IN THE WORLD.



Every Engine is carefully tested with hydraulic pressure of 200 pounds per square inch, fired up and run with 120 pounds steam pressure, until known to be perfect and complete in all its parts. They are furnished with Smoke Pipe, Governor, Heater, Steam and Water Gauges, Whistle, Safety Valve, Gauge Cocks and Oil Cups.

Every piece in the Ames Engines is fitted to a standard gauge, so that all extra or duplicate parts will fit as well as those that originally came with the Engine. We ask and court the closest and most intelligent scrutiny of all the detail and general "make up" of our Engine, being satisfied in that event the verdict must be unhesitatingly in our favor.

Every Boiler is tested with water and steam, and is guaranteed to stand a cold water pressure of 200 pounds to the square inch. The shell and tube sheets of the Boilers are of the best Pennsylvania iron, of the proper thickness to secure strength—while extra precaution is taken at an increased expense—of making the furnace of the Best Solid Fire Box Plate, which has never heretofore been used in portable engines for threshing purposes, on account of its high price. The Tubes are the best American lap-welded. The Boilers of Ames' celebrated Wood and Straw Burning Engines are not only made of better material, but are much larger for the same price and horse power than those of any other builders, and this is one of the many reasons why the Ames Engines will always work up to more than the horse power at which they are rated; this no other Threshing Engine on this Coast will do.

Particular attention is paid to boring the Cylinder accurately and smoothly, and to fitting the Piston and Valve. The Piston is of the most approved locomotive pattern, fitted with metallic packing rings, which are adjusted by steel springs of

proper proportion regarding tension, elasticity and strength. The Slide Valve and its face are made perfectly true and steam tight, and it is constructed with the proper amount of lap to develop the most improved data of expansion that has been proved by numerous experiments to point the correct working of the Engine, in relation to the use of steam, with the greatest economy and efficiency. Another important point is the proper size of the steam and exhaust passages, so that as little as possible of its force is lost by friction on its way to the cylinder, and that there may be as little back pressure as possible in the exhaust. From absolute knowledge, obtained from careful practical experience and use of the Steam Engine Indicator, we have had constructed and proportioned these ever important parts of our Straw and Wood-Burning Engines, and we have no hesitation in claiming decided advantages for them regarding economy in fuel and increased power and efficiency. The Boilers of Straw Burners are of the return tubular pattern, with a large flue in the center, and return flues or tubes, two inches in diameter. Every Engine is fired up and run at our store before it is turned over to the purchaser, so that we know every Engine will give perfect satisfaction.

SOLD ONLY BY

BAKER & HAMILTON,

San Francisco and Sacramento.

DURYEA'S SATIN GLOSS STARCH

AND

DURYEA'S IMPROVED CORN STARCH

ARE THE BEST IN THE WORLD.

USE IT ONCE AND YOU WILL USE NO OTHER.

FOR SALE BY ALL GROCERS.

FAC-SIMILES OF PRIZE MEDALS AWARDED THE



The Messrs. Duryea have succeeded in refining Starch to entire purity and developing its entire strength and clearness, an improvement that will be readily perceived in the great strength of the Starch, the superior luster that it gives and in its reliable uniformity. Much of the so-called starch contains from one-fourth to one-third foreign matter, readily perceived by sourness, mustiness, or a golden yellow tinge, peculiar to inferior starches, a color not desirable for one's linen, but inseparable from the use of common starch. They pledge themselves to the public to give a uniformly superior article, from one-fourth to one-third stronger than any other starch in the world, and at the common market rates.

EGERTON, ALLEN & CO., Sole Agents for Pacific Coast. S. F., Cal.

FOR SALE

In the Riverside, New England and Santa Ana Counties, in the valley of the Santa Ana river, San Bernardino county, California, twenty thousand (20,000) acres of clean, rich, level, valley land, with an abundance of water for irrigation. There is no better land in the State for the orange and all other semi-tropical fruits, and no finer climate in the world. Inquire of W. T. YWARD, 420 Montgomery street, San Francisco; S. C. EVANS, Fort Wayne, Indiana; C. I. HUTCHINSON, 314 California street, San Francisco; L. UPSON, General Agent, Riverside, San Bernardino county, Cal.

A GOOD BARGAIN.

\$500 will buy a good, pre-emption claim of 160 acres in Monterey County, with a good Dwelling House that cost more than that amount, situated one-half a mile from the Los Angeles Stage Road, and about the same distance from the line of the Southern Pacific Railroad. Apply to

MRS. ROWLANDSON,
On the Premises, San Antonio, Cal.

NATHANIEL CURRY & BRO.,

113 SANSOME STREET, - - - SAN FRANCISCO,

IMPORTERS AND DEALERS IN

Breech and Muzzle-Loading Shot Guns,

RIFLES and PISTOLS,

HAVE CONSTANTLY ON HAND

Whitney's, Sharp's and Remington's Sporting Rifles, Evans and Winchester Repeating Rifles, Breech-Loading Shot Guns made by W. O. Scott & Son, W. W. Greener, P. Webley & Son, and other Celebrated Makers.

Muzzle-Loading Shot Guns of every quality made by the best manufacturers; also all kinds of Ammunition, METALLIC CARTRIDGES, Gun Caps, Gun Wadding, Powder, Shot, and Eley's Wire Cartridges for Breech and Muzzle-Loading Shot Guns, wholesale and retail.

NATHANIEL CURRY & BRO.,

113 Sansome Street, San Francisco.

SIXTY DAYS.

GOODWIN & CO.,

FURNITURE & BEDDING,

312 PINE STREET, S. F.

Being obliged to Remove, will sell our Entire Stock for LESS THAN COST, until September 1st.

GOODWIN & CO.,

No. 312 Pine Street, San Francisco.

GREAT EASTERN AND WESTERN

Horse and Mule Market,

Cor. Fifth & Bryant Streets, San Francisco.

A choice stock of Carriage, Draft and Farm Horses on hand, and constantly being received from the East. All classes of Horses and Mules purchased and sold.

WASHBURN & RANDALL, Props

FARMERS write for your paper.

Hooper's South End Grain Warehouse,

Japan and Townsend Streets.

SAN FRANCISCO, July, 1874. I beg to inform you I have leased the above first-class Fire-Proof Brick Warehouse, now being erected by Geo. F. Hooper, Esq., and will be ready to receive storage on the 1st of August. This warehouse offers superior inducements to parties desiring to store grain and flour, as it is situated on the Water Front, and on the line of the O. P. R. R. and S. P. R. R. It is well ventilated, rat proof, and combines all the modern advantages and improvements. Yours respectfully, JOHN JENNINGS. Advances and Insurance effected at the lowest rates. Storage taken at lowest current rates. 465-ft.

Thursday Noon our last forms go to press. Communications should be received a week in advance and advertisements as early in the week as possible.

REMOVAL.

Owing to a constantly and largely increasing business, we have been compelled to move our

SEED WAREHOUSE

419 & 421 Sansome Street,

Bet. Clay & Commercial, west side.

Our aim is to make this the most

Complete and Extensive Establishment of its kind on the Coast.

SEEDS, TREES,

PLANTS,

SHRUBS, Etc.,

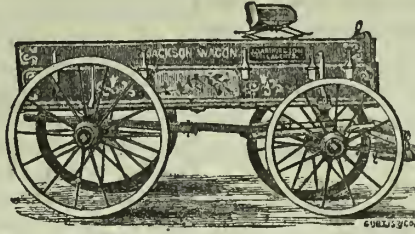
Furnished at the lowest price compatible with good quality.

Our Stock will be largely increased for the ensuing fall trade.

R. J. TRUMBULL,

Wholesale and Retail Dealer in Seeds, Trees, Etc.,

419 & 421 SANSOME ST., S. F.

JACKSON
MICHIGAN WAGONS

Intending to close up our business this season, we now offer our stock of Wagons at greatly reduced prices.

J. D. ARTHUR & SON,

Corner of California and Davis Streets, San Francisco.

SAN JOSE

Institute and Business College.

A day and boarding school for both sexes. The 27th session will commence Aug. 2d, 1875. THE INSTITUTE, under the supervision of ISAAC KINLEY, has been carefully graded, and a thorough academic course has been added. Students completing the course will receive diplomas. THE BUSINESS COLLEGE, under the direction of JAS. VINSONHALER, is complete in all its appointments, and in thoroughness and efficiency ranks with the best business colleges in the State. Those from a distance have the privilege of boarding in the Institute buildings. Letters relating to the Institute should be addressed to

ISAAC KINLEY,
Superintendent San Jose Institute,
San Jose, California.

Letters relating to the Business College should be addressed to JAMES VINSONHALER, Principal of the Business College, San Jose, California.

UNIVERSITY of CALIFORNIA,

BERKELEY, near Oakland.

COLLEGES OF AGRICULTURE,

CHEMISTRY, MECHANICS,

MINING, ENGINEERING

and LETTERS.

Examinations for Admission, August 11th and 12th, at 10 o'clock A. M.

Tuition free. Circulars sent on request.
hp-td

WIRE.

5,000 bundles of Baling and Fencing Wire. P. W. C.
3,000 do of Galvanized Wire.
100 tons Refined Steel Wire.
Full assortment of Brass and Copper Wire.

SOLE AGENT FOR

Johnson's Celebrated Telegraph Wire.

500 miles in bond, or duty paid.

A. S. HALLIDIE,

113 Pine Street, - - - SAN FRANCISCO.

LAND PLASTER.

(Sulphate of Lime.)

This fertilizer is especially well adapted to California lands and climate, and is destined to be used to immense advantage.

PRICES GREATLY REDUCED.

In bulk, \$10 per ton; in barrels or bags, \$12.50.

Golden Gate Plaster Mills.

LUCAS GESNER & CO.,

215 and 217 MAIN STREET, SAN FRANCISCO.

EMPIRE PARLOR MATCHES

We have imported the requisite Machinery and Chemicals to add to our previous assortment of Matches the celebrated Parlor Match, deservedly popular among families and smokers, on account of brilliant burning qualities, and absence of smell or odor. Manufactured from the best sugar pine, a wood superior to any other, and found only upon the Pacific Coast. They are full count, and without objection of any kind. Packed in boxes of most desirable style. Brimstone and Safety Matchboxes of superior quality manufactured, and are guaranteed to give entire satisfaction. Encourage Home Industry, and get superior goods at less cost than the imported article. Ask your grocer for the EMPIRE PARLOR MATCHES, and he will ensure you get no others. For Sale by all Grocers.

B. BENDEL & CO.,

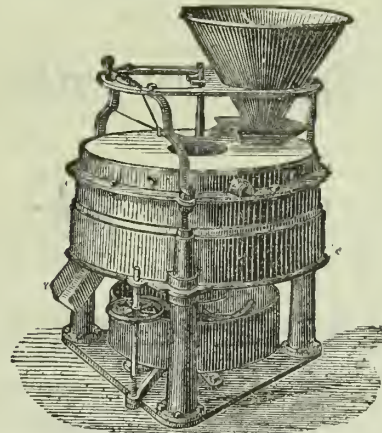
MANUFACTURERS, 318 FRONT STREET.

FACTORY—Corner Eleventh and Harrison streets, S. F.
166-90W

J. WAGNER,

MANUFACTURER OF

FRENCH BURR MILL STONES AND
PORTABLE MILLS.



General Mill Furnishing. Portable Mills specially adapted for Farmers' use. 113 and 115 Mission street, San Francisco. 13v7-3m-2am



Pure Blooded French Merino Rams

For sale by MRS. ROBERT BLACOW, of Centerville, Alameda County, Cal., near Niles Station, on the Western and Southern Pacific Railroad.

These Sheep are guaranteed of pure descent, from the French Imperial Flock at Rambouillet, and are equal, if not superior, to any of this breed in size and quality of wool, and are proved to be the heaviest shearers in the world.

H. H. H.

HORSE MEDICINE,

D. D. T.—1868,

Is gaining a wide spread notoriety. Testimonials from all parts of the coast show it to be a companion in every family. It quickly removes Wind Galls, Spavins, Calious Lumps, Sweeny, and all blemishes of the horse, while the family finds it indispensable for Sprains, Bruises, Aches, Pains, and wherever a good liniment is required.

WILLIAMS & MOORE, Prop's,

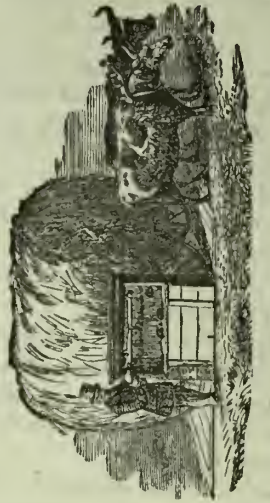
Stockton, Cal.

A. W. THOMPSON,

Attorney at Law,

No. 6 Leidesdorff Street, S. F.

THOUSANDS of Teachers are using Clarke's New Method for the Piano Forte, with remarkable success; it is the best. Price, 3.75.

THE
STANDARD.

FAIRBANKS'

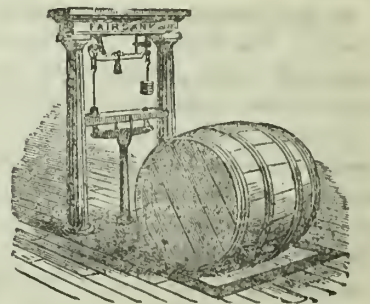
Hay, Grain, Cattle, Warehouse

and Platform

SCALES.

WAGON and STOCK SCALES,

3,000 to 20,000 Pounds.



WAREHOUSE SCALES,

(Set in the floor)

1,500 to 5,000 Pounds.

PLATFORM SCALES ON WHEELS,

400 to 4,000 Pounds.

Warranted in every instance. Address,

FAIRBANKS & HUTCHINSON,

537 Market Street, S. F.

For Sale by all Hardware Merchants.

Agents for Miles' Alarm Money Drawers.

The Immigrant Bureau and How it Is Used.

A reporter paid a visit to the new rooms of the Immigrant Bureau, No. 123 California street. Finding Mr. J. Earl, the manager, at his post, we interviewed him.

Reporter—Mr. Earl, from the variety of printed matter, maps and registers which you have about, one would infer that a large percentage of the immigrants arriving found their way to your rooms.

Mr. Earl—Well, yes; we see a good many of the new comers. The average number inquiring for land ranges not far from twenty daily, while the number of those seeking work of one kind and another is quite large.

Reporter—What do you do with so many?

Mr. Earl—No difficulty has thus far been experienced in finding work for them, unless they are determined to hang around the city. We have occasionally such cases, but not many. Where the applicant seeks land we give all reliable information that can be obtained, and furnish him with letters to some responsible party in the section which he desires to visit.

Reporter—Do they fully appreciate the benefit this Bureau is to them?

Mr. Earl—Yes, the most of them do. Many are Grangers. They seem to feel at home with us. A great many have corresponded with us before starting. Strangers in a strange land that are met with a kind and brotherly disposition and shown the favors that we endeavor to show them, cannot otherwise than feel thankful. They are furnished all information free of charge. They often say—"This Bureau is a godsend to us immigrants!"

Reporter—Where do all these new comers go to?

Mr. Earl—Well, we are frequently asked that question. The people in each locality in the State show a little jealousy, for fear we will not send them their portion. The few thousand that are coming get spread out over a vast country like this, and it is difficult to say where they are. The coast counties absorb a large share of them. We could find places for five, yes, ten times as many as are coming.

Reporter—Do they have trouble finding lands?

Mr. E.—No; we are receiving a large amount of lands to offer to them, and to rent. Many of our large land owners are now coming in and offering to place their lands in shape for the market. I have a plan for cutting up those tracts which will succeed if they will follow it, using the grazing lands as well as the farming. I have submitted a proposition to the Executive Committee, to connect a land department to this Bureau, and it should be done by all means.

Reporter—What do they think of it?

Mr. E.—I cannot tell you, as they have not given me an answer. A Bureau for lands added and no lands accepted for sale other than such as can be truthfully represented as resting upon title known to be good at prices not too high, the Bureau would command the confidence of both the sellers and purchasers. The manager should be regarded as on the side of the buyer, guarding him to the utmost of his ability from all wrongs.

Reporter—This would require quite an expense to conduct it.

Mr. E.—True; but those offering their lands should be charged a small commission to defray the expense. Now, the way we receive

lands we cannot tell in every instance whether the title is perfect or not. This is a responsible place. To direct parties where to go to purchase, and not be in possession of all the facts as to title is wrong. There are but few men who understand examining into the titles of land. We should dislike to have parties return to us after a year or so and say, "You sent us to lands that had defective title, and we have lost what we had." A Bureau of this kind that all would have confidence in would go farther toward settling our State than anything that could be established; and by all means it should be formed.

The offices of the Bureau are light and pleasant, well adapted to the wants of the business. The establishment of this department is a wise move on the part of our citizens, as well as a great help to the State and the many arriving. We need the people; we have the country and climate for them. All should help to support this move and make it a fixture of the State.

The Immigration Question—The Future of California—What is to be done—What New-comers may do.

EDITORS RURAL PRESS:—The business which I was called upon to attend to, as agent of the State Grange, having merged into the Grangers' Business Association, it would seem that for a time my occupation was gone. However, such was not the case, "for the funeral baked meats did coldly set forth the marriage table." I had not the time to settle up my business as agent of the State Grange, before I was called upon to assist Brother Earl in the gigantic work of assisting the arriving immigrants to find

Houses and Situations.

A task which may prove as beneficial to the State of California as the one I was engaged in. (I believe it will be more so.) For a time, when the newspapers set up such a hue and cry about what was to be done with the immense immigration that was arriving, I confess it was very much of a query in my mind what was to be done with them, and I felt a little like consoling Brother Earl for the strong inducements that he had held out to them through the *Grangers' Guide*, to come here.

I remember meeting a prominent citizen one day on the street, who said to me, "What are you Grangers a going to do with these immigrants that you have been inducing to come out here?" Shrugging my shoulders I replied that that was no department of mine. But I had to acknowledge that I did not know what would become of them all. And why did I not know? Simply for the reason that I had not taken the pains to inform myself in relation to the resources of California.

Since being connected with the Bureau, I have taken great pains to inform myself, and I feel that it is one of the most important things we can do to take every just measure to have our State settled, a State that has the advantage of every other State in the Union in everything except in that of population—and in that we only lack in numbers—not to hold out any

false inducements, but use every endeavor to

Let the Facts be Known

Relative to our resources and advantages of soil and climate. And when those facts are thoroughly known and understood by the millions of people who are anxious to better their condition in life, there is no fear but our State will be filled with an industrious and enterprising class of people.

Internal Improvements

Will commence and be carried on to completion, canals for irrigation will be constructed in our now desert valleys, railroads will have to be built for the carrying of our produce to market, new towns and villages will spring up in all portions of our State. Our State will be so desirable for homes that even some of her mountain tops will be sought for for residence. Manufacturing will be carried on, capital will seek investment here, and we shall no longer have to complain of high rates of interest, no more than they do in the thickly populated countries in Europe.

In my opinion, our climate is so desirable, and the soil so productive, that we may reasonably expect all these results to be brought about, and it should be the object of every true Californian to labor to bring them about.

To this end our coming legislation can do much, by framing wholesome laws governing

A General System of Irrigation.

There are yet thousands upon thousands of acres of as good land as the sun ever shone upon in our broad valleys, now rendered nearly valueless by prevailing drouths, which lands, under a general system of irrigation could be made as productive and valuable as any in the State. Experiments prove this assertion to be true.

A gentleman writing to Mr. Earl, from Europe, says their people are afraid to risk their capital where the rates of interest are so high as in California. They think the security cannot be good. This, in some cases, would be good reasoning, but it simply shows that they do not fully appreciate the situation of affairs here.

I ask, was there ever a time when capital could be more profitably invested than at the present? I think not!

See how Real Estate has Enhanced in Value

Within the past few years. How has it been with real estate in the more recently settled valleys of the State—Salinas, San Joaquin, Santa Rosa, and in the counties in the southern portion of this State? Many of these lands have advanced in value from fifty to two and three hundred per cent. within the past four years.

There are still as Good Lands

as any in the localities mentioned that under irrigation would increase in value quite as rapidly. There are lands along the line of the San Joaquin and Kings River canal, to my knowledge, that five years ago could have been bought for five dollars per acre that to-day can not be purchased for forty. And there are a plenty more of equally as good lands in the San Joaquin and other valleys, where there are the same opportunities for speculation, and upon which a profitable business may be done in the way of farming when a system of irrigation is adopted and carried out.

With these facts so plain before our eyes, can our next legislature fail to give us laws enabling us to carry out this system? And can anyone, under such a system, doubt of the propriety of inducing immigrants to settle these lands?

Then again, look at the

Vast Amount of Cheap Land,

and land that is still unoccupied, in our coast and northern counties, where they are sure of crops and feed for stock without irrigation. Can any one doubt that there is still room for immigration, or that there is a lack of work for "willing hands to do?" I think not!

Then again, see what vast treasures our newly discovered mines are yielding. Viewing all the advantages California presents we need not fear that she is becoming impoverished, or that there is any danger of those who come here seeking homes starving; nor need our brethren in Europe fear that their capital will not be safely invested because of such high rates of interest, while such inducements for the investment of money is offered,

In urging our friends and brothers in the densely populated portions of the United States and Europe to avail themselves of the

Advantages that California Offers

It is not necessary for me to specify what all these advantages are, or what special inducements particular localities offer to the immigrant, as this has already been so ably done by those who have so long practiced the use of the pen, foremost among which we might mention such papers as the *RURAL PRESS*, the *Resources of California*, and last, but not least, the *Granger's Guide*. And since the formation of this bureau I have been pleased to notice that nearly all of our city and local papers have published freely information to guide the immigrants in their endeavors to find homes and employment.

But before closing this letter (which I fear is getting rather lengthy) I have a few practical suggestions to make to the members of our noble Order of

Patrons of Husbandry.

There are many ways in which we can aid these new comers without any outlay of money. Let us welcome them when they arrive with a cordial greeting. There are a great many who are now arriving from the lands made desolate by the ravages of the grasshoppers. Among them are men of bright intellect and who are not lacking in energy to meet their wants. There are those in our Order who can give them shelter, and are able to furnish them with lands and means to put in a crop, the coming fall. There are those among us who could loan to such people the use of their teams and tools and give them small jobs of work to perform, and by little acts of kindness make them feel that they are among friends; the result would be to make them comfortable, and they, under a sense of gratitude, would write to their friends in bondage to come to the promised land where there is peace and plenty. Much may be done to encourage immigration and our labors materially lightened if the Subordinate Granges throughout the State would take special pains to send to this office

Correct Information in Reference to Lands

For sale or to rent, and, where it is practicable, forward to us maps of counties, towns or sections; and,

Where Labor is Required.

Send to us instead of sending their orders for help to the various intelligence offices, where the laborer has to pay his last two-and-a-half piece to secure a situation and then go to work hungry. Let the orders come direct to this office, where all information is given free of charge. In saying this I do not wish to cast any reflection upon our intelligence offices, for I believe many of the men engaged in them are doing a legitimate business and are honorable men; and where their services are required they should receive a just remuneration for such services.

To the Immigrants

I will say that it would be better always to have some well defined object in view when coming here before leaving your homes. Farming and mining are the paramount interests of this State. My occupation in California has been, and is now, principally that of farming, and what little success I have obtained in that direction I owe principally to the apprenticeship I served in the service of others. My advice to others would be to "go and do likewise." We would hardly expect to be able to navigate a ship until first being able to "box the compass."

If You Have Capital,

Don't rent land while there is so much good land offered for sale and so cheap. If you are without capital, go to work for some man that understands farming, and if your services are worth anything, if you have energy and perseverance, you will succeed. Capitalists are continually on the lookout for such men. Where honest and intelligent, they soon get positions as foremen, or are supplied with everything to carry on farming for a portion of the crop.

Hoping these suggestions may be beneficial to the incoming population, I remain

Fraternally,

I. G. GARDNER.

The California Farmers' Mutual Fire Insurance Association.

This company was organized in the summer of 1874, and got into full operation about October 1st of that year. The chief object had in view in the formation of the company, was to give to farmers the benefit in insuring of the isolation of their buildings and consequent diminution of risk.

Insurance is like merchandise, which is bought for a price reasonable or exorbitant, as it bears relation to its cost. Manifestly the chief source of expense to be considered is the risk, and as risks in cities are of a different class from those in the country, so should the price correspondingly vary in favor of the locality where the risk is less. Such reasoning is not consistent with the interests of the ordinary fire insurance companies, as it is to their benefit that the conflagration risk of cities should be met by premiums on farm buildings not exposed to danger from the burning of other structures, and hence they ordinarily refuse to recognize the distinction and to make their rules accord with the circumstances or class of circumstances.

Beyond the point specially considered above, is the fact that of late years the insurance business has come to be characterized by great extravagance in its expenses and demands for large profits, and, moreover, generally draws from the community a considerable proportion of the commonwealth money, which properly belongs to the general capital of the community in which the insurers reside, and employs it at a place in the well-being of which the persons who pay premiums have no immediate interest.

As members of an organization of farmers, whose objects are to "foster mutual understanding and co-operation, to escape the exactions of capital, and to get rid of burdensome systems of business by which the people are deprived of their just profit," it has naturally occurred that Patrons of Husbandry have felt called upon to study out and place in operation such a system of insurance as appeared likely to meet the evils indicated, and, so far as in their power, remedy them. But inasmuch as all who are affected are not members of that organization, and there appears no reason for their exclusion, it has appeared just to permit all parties in interest to derive such benefit as could be accorded by the plan, apart from consideration of the question whether they were Patrons or not.

At the outset much labor was requisite to properly collate, digest and consider the facts involved. The result of the work performed by the originators of the scheme presented by this company was, that they became satisfied that the proper course to be taken to attain the desired end of economy and fair dealing, was to inaugurate such a system of mutual insurance among farmers as would enable them to insure at cost. The cost of insurance is the expense incidental to office, clerical force, and agents, together with the payment of losses, and if each insurer pays a proportion of such cost commensurate to the amount of his insurance, and no more, he gets insurance at cost.

The plan by which that is to be done is simple, and that it may be understood, attention is requested to the details. Each insurer signs an agreement with each and all the others, through the company, as the agent of all, that he will pay his proportion of the cost of insurance of all, such proportion to be determined by the relation of the amount of his several insurance to the entire amount covered by the company under the mutual plan, the cost to be ascertained as above detailed. The proportion of each insurer, by him to be borne of the total cost, will decrease as the total amount covered becomes greater, and it thence results that each insurer becomes interested to add to the number of persons included in the agreement.

When a loss occurs, that no delay may incur, and that losses be promptly met, a fund is created and maintained in the following manner:

At the time of insuring, a membership fee of \$5 is collected from the insurers, to aid in meeting current expenses, agents' fees, etc., and also the insurer deposits two per cent. on the amount of his insurance; the fund created

by these deposits is placed on interest and it is from this interest that, it is anticipated, the cost of insurance will be paid.

This deposit, of two per cent., remains the property of the insurer, subject only to the payment of his proportion of losses and expenses; hence any insurer, at any time, can recall his deposit and take back his money, with its accumulated interest, less his proportion of losses and expenses up to the time of such withdrawal.

Inasmuch as the money is to be loaned, half of the two per cent. may be by a note of the insurer, for one year, at twelve per cent. per annum.

Thus the desired end is attained, and each gets his insurance at cost price; the interest on the two per cent. deposits will probably pay that cost, as appears not only from the experience of the company thus far, but also from the mass of statistical information which has been got together from all parts of the United States, has been fully considered by this Association, and by them used in laying the plans for this organization.

The advantages of this scheme to farmers, over insurance in an ordinary company, are too manifest to make desirable a more extended detail of them; the cost of insurance by the premium system in vogue by the old companies here is, on farm buildings, from three-fourths to one and three-fourths per cent. per annum; the actual cost of such insurance, as appears from statistics, showing the facts to be from one-tenth to one-fifth of one per cent.

Obviously to keep the advantage claimed by this company over all others in California, the distinction must be maintained between city and country risks, between the insuring of buildings which are so wholly detached and distant from others as to be subject to no danger of spread of fire, and those which in cities are subject to conflagration risks; hence this company will refuse to take any which come in the latter class, and, therefore, as an invariable rule, this company will refuse all applications for insurance on buildings which are, as to other buildings, "within a radius of one hundred feet, or where the burning of one building will endanger the other."

As under present conditions no risk on one building can be taken in this plan for more than \$5,000, the risk to each individual is very small indeed, and is constantly decreasing as the business increases. At this time, June 15th, 1875, there are nearly one thousand risks written, and the daily increase shows to the company that it will receive the fullest meed of popular favor.

The second evil in the system in vogue by the old companies, mentioned hereinbefore, viz., the drain of capital to the detriment of local business, this company proposes to avoid, by not taking the money away, but depositing it in local banks, which will pay fair interest.

Inasmuch as in the storage of produce, and in some other instances not necessary to be enumerated, it would be inconsistent with the requirements of the insurer to cover his property by a policy on the mutual plan, or for the period of time (five years) covered by the deposit, the company having duly complied with the requirements of the law, and being as fully empowered as any insurance corporation so to do, offers to its patrons insurance in the usual manner upon "flat policies," in which the contract is directly between the Association and the person insured. We can fairly compete, in this connection, with any other responsible company, and shall place insurance on "flat policies," at as low a rate as they can be carried with safety.

In order to bring ourselves into direct, intimate relations with those we hope to make our patrons, it has appeared expedient to this corporation to appoint local permanent agents, to reside in the cities and towns outside of San Francisco, in California, and to designate local banks in which our deposits will be made. Therefore Mr. — has been appointed local agent for this company, to reside at —, and he is only authorized as such agent to represent this company in the premises, and the — is designated as the place of deposit where the funds paid to said —, agent for this company, will be kept, and the said — is authorized and directed, in the name of and for this company, to deposit such funds as may come into his hands for and as the agent for said Association.

Examine carefully for yourselves before insuring elsewhere.

Policies on grain, etc., in warehouses will be issued at all branch offices, thereby saving time and trouble of sending to the home office.

The list of offices of this Association will be found every week in the advertising columns of the "Rural Press."

General Employment Agency.

The Oldest and Most Reliable
Employment Agency on the
Pacific Coast.

ESTABLISHED IN 1855.

Now Conducted by CROSETT & CO., at
623 and 625 Clay Street, San Francisco, California.

Thousands of capable and intelligent men and women, willing and anxious to work, have come to us from the East during the last three months, to find employment. Thousands more are coming.

We Welcome These People.

They are just what our State needs to develop its resources, build up its cities and cultivate its vast and unoccupied territory.

We owe it to these new comers, we owe it to our prosperity, to hold out inducements to them to settle among us. It becomes us to do all in our power to supply them with

Remunerative Employment.

Our cities, with their various industries and extensive building and manufacturing enterprises are doing much to supply this continually increasing demand for situations, but they cannot unaided supply the demand. We need the co-operation of our friends in the country to aid in sending out and distributing this large supply of unemployed labor.

All through the State are stock men, farmers, fruit men, lumber men, mill and mining men who would be glad to employ just the kind of labor, both skilled and unskilled, with which our cities are overstocked, provided they could be sure of obtaining competent and reliable workmen. With a view to

Facilitate Employers

In obtaining just the kind and quality of labor they desire, labor and employment exchanges have been established, and so successful have they been in bringing employer and employee together, that their practicability and usefulness are no longer an experiment, but an established fact, recognized by business men throughout the State. And many who have tried and know testify that in no way can they obtain good, reliable workmen so promptly, upon so short notice, and with so little trouble to themselves, as by simply sending an order by express, mail or telegraph, to Crosett & Company's employment agency, San Francisco.

This Agency

Was established twenty years ago, and is the oldest establishment of the kind on the Pacific coast. From a small beginning in 1855, it has grown to such dimensions that it has been compelled repeatedly to move into more commodious quarters, and now it occupies the large double store formerly occupied by M.

Gray & Co., No. 625 Clay street, next door west of the banking house of the San Francisco Savings and Loan Society, one of the most central business locations in the city.

Messrs. Crosett & Co.

Are daily receiving and supplying orders sent from all parts of the State, containing requests for every variety of labor, for the farm, the field, orchard, vineyard, tending stock, or cultivating the soil; for all kinds of lumber, milling and mining work, from superintendent down to simple laborer; for the shop, mechanics, engineers, artisans, and skilled workmen of every kind.

Nor do their orders contain requests for male help alone. Great pains is taken to supply our housewives with the very best domestics, cooks and general housemaids that can be obtained.

We would call the especial attention of the Grangers and Farmers Generally

To our facilities for supplying farm help. Referring confidently to our past record for faithful attention to the wants of our patrons, we have no hesitation in assuring all who may favor us with their orders, that they can nowhere else be better and more promptly served than by applying as above.

Mr. Crosett gives his constant personal attention to his business. His long experience makes him quick to see and accurate in judging of the merits of those who apply to him for situations. And his well established and wide extended reputation bring to his office an abundant supply of every kind of labor, from which he is enabled to select the best.

All this advantage Mr. Crosett gives to those who will favor him with their orders, and that, too, without any expense to the employer—all the fees being paid by the employee.

The Employment Agency of Messrs. Crosett & Co. is supplying a great need in our State and we take pleasure in commending it to all readers of the RURAL PRESS.

STRAW BURNERS.

To the Public:—

I am the original inventor of a tube attachment to the furnaces of engines for the purpose of feeding straw to the furnace for fuel. My first patent was issued to me by the United States Patent Office, on the 11th day of February, 1873. Subsequently, on the 20th of May, 1873, I obtained a second patent for improvements in said tubes. The first patent covered a tube having a revolving partition or door outside of it, so that the straw could be pushed in under the partition, and the opening or passage in the tube kept closed, in order to prevent a draft of air from entering through the tube when the straw was being introduced. My second patent covers a tube provided with a valve or hinged door, which closes the passage through the tube. Finding that certain parties had commenced to infringe upon my rights by attempts to evade my patented claims, I have recently, to wit, May 4th, 1875, reissued my first patent, and being the first person who ever used a horizontal tube through which straw or fuel was fed to a furnace, was enabled to cover broadly any horizontal tube or its equivalent which may be attached to the doors of boiler furnaces for the purpose of feeding fuel through, no difference whether the tube has a door, valve, partition or other device for closing the passage through it, or whether it is simply an open tube which is kept filled with straw.

Messrs. Treadwell & Co., corner of Market and Fremont streets, San Francisco, Cal., are my agents for the Pacific Coast. Any person who desires to attach a horizontal tube feeder to the furnace of a boiler or boilers, or is desirous of making and using them, can purchase the privilege to do so from my agents, and will receive a plate with date of patents marked on it, and which must be riveted upon each tube in use. All tube attachments for feeding furnaces not provided with this plate will be considered as infringements, and will be dealt with accordingly.

DAVID MOREY,
Watsonville, Santa Cruz County, Cal.

RURAL EXCHANGES.—If any of our readers desire to subscribe for an agricultural paper published elsewhere than in the South, the best place to send their money is not New York, or Philadelphia, or Boston, but San Francisco. This should not be understood as undervaluing the many deserving publications which come from the former places, some of which may be read with profit anywhere, but as our estimate of the comparative adaptation of the Eastern and the Pacific coast journals to our climate, crops and circumstances. In this respect the advantage is so clearly on the side of the latter that we would sooner pay the \$4 a year charged for the PACIFIC RURAL PRESS (weekly) for information, than to obtain any three Eastern agricultural journals, were that possible, for the same money. The PRESS is most ably conducted, and is one of the best papers on our exchange list. Published by Dewey & Co., San Francisco, at \$4 a year.—Rural Carolinian Charleston.

GRANGERS' BUSINESS ASSOCIATION,

Shipping and Commission House,

No. 351 Market Street, one Door from Fremont,

SAN FRANCISCO.

Incorporated February 17th, 1875.

CAPITAL STOCK, - - - \$1,000,000.00.

DANIEL INMAN, President.

T. J. BROOKE, Vice President.

W. VANDERBILT, Secretary.

J. LEWELLYN, Treasurer.

DIRECTORS.

DANIEL INMAN,

T. J. BROOKE,

W. VANDERBILT,

J. LEWELLYN,

THOMAS UPTON,

G. P. KELLOGG,

I. C. STEELE,

A. ADAMS,

DR. T. FLINT,

A. W. THOMPSON,

R. C. HAILE.

This Association was incorporated with over EIGHTEEN HUNDRED STOCKHOLDERS, representing all the various agricultural industries of the State.

Its objects are to transact a straightforward and thoroughly reliable business, at specially favorable rates of commission, for all Patrons and farmers of the Pacific coast.

The Board of Directors, upon duly organizing, elected Mr. T. J. Brooke, (formerly active President of the Grangers' Union of the San Joaquin valley,) as business manager of the Association.

On the 1st of June, the Association permanently located its office and storehouse at No. 351 MARKET STREET, ONE DOOR EAST OF FREMONT STREET, occupying three floors. The building is commodious and provided with an elevator passing from the basement to the uppermost story.

The Association is now ready to make shipments of grain for foreign and domestic ports, and receive consignments for sale of grain, wool, dairy products, fruit, vegetables and all other products of the country.

We would recommend, wherever practicable, that farmers aggregate their wheat in the hands of local corporations, or individual agents, in large quantities, enabling us at opportune times to sell in cargoes or round lots. This will enable us to secure better prices for each owner.

Grain and other staple products will be received on storage, by the month or for the season, and advances made on the same.

We will also fill orders for grain and wool sacks, agricultural implements, general merchandise, wagons, produce, household and domestic goods, etc.

Our connections with the largest importers on the coast enable us to fill small orders for merchandise on as favorable terms as large ones.

Our business for the past six weeks, (not-

withstanding that we labored under many disadvantages for want of room), leads us to anticipate a bright future, and we earnestly solicit the patronage of the interior, for upon that our perfect success depends.

We do a strictly commission business, and propose to place our rates of commission upon a fair legitimate basis that will enable the country at large to transact business through us to their entire satisfaction.

There still remains an opportunity for parties who are not stockholders to subscribe to the capital stock in amounts large or small, and thereby become more deeply interested in our progress, and by so doing enable us to extend and enlarge our capacity for business, accordingly.

We would suggest to the different Granges, to appoint some one to act as agent, through whom they can aggregate their orders for sacks or merchandise, saving us much time in making purchases, and themselves expense in drayage and freight, and thereby enabling us to open an account with one, instead of many.

We hope soon to hear from all Granges in the way of orders and consignments, which will receive our immediate and careful attention.

Consignments to be marked GRANGERS' BUSINESS ASSOCIATION, SAN FRANCISCO. Stencils for marking will be furnished free on application.

The attention of Patrons and farmers is called to the following

REPORT.

Pursuant to letters of invitation of T. J. Brooke, Manager of the Grangers' Business Association of California, issued to the several Grange corporations of the State on the 11th inst., a meeting was held June 22d at their office, at which the following Grange corporations were represented:

Grangers' Business Association of California, Grangers' Union of San Joaquin Valley'

Grangers' Bank of California, Grangers' Warehouse and Wharf Co., Antioch, Farmers' Co-operative Union, Antioch, Farmers' Union of San Jose, Farmers' Storage and Commission Co. of Colusa, Grangers' Business Association of Dixon, Grangers' Business Association of Visalia, Merced Warehouse Co., Yountville Farmers' Business Association, Grangers' Business Association of Healdsburg, Farmers' Mutual Insurance Co.

After a general consultation, the following resolution was unanimously adopted:

Resolved, That it is deemed of imperative necessity that the several Grange incorporations of California co-operate with the "Grangers' Business Association of California," with a view to concentrate and centralize the buying and selling of the farmers' necessities and products; and that we will use our best efforts to have the corporations we represent, and farmers generally, transact their business with that association.

ANDREW WOLF, Chairman.

T. H. MERRY, Secretary.

If any local corporation failed to receive letters of invitation to the above meeting, it was an unintentional omission, and we would be glad to hear from them and co-operate with them in future.

T. J. BROOKE, Manager.

San Francisco, June 23d, 1875.

[COMMUNICATED.]

E. DETRICK & CO.'S BAG MANUFACTORY.

The farmers of California do not appear to be discouraged about the harvest of the present year, judging from the way they have been patronizing our bag merchants. Messrs. E. Detrick & Co., of 123 Clay street, contracted during the months of January and February to furnish 1,300,000 grain bags. This enormous number was furnished in time to be ready for the first of the present crop. They are now constantly filling large orders, and they inform us that they are not only getting new customers in goodly numbers, but all parties to whom they sold bags last year profess a decided preference for bags of their manufacture. This is a guarantee that their bags give satisfaction, and it is not to be wondered at when we come to learn of the great care exercised by this firm in the manufacture of their goods. Messrs. Detrick & Co. appear to have, in the making of their double samed bottom bags, approached very near perfection. That their "E. W." or standard bag is superior to any English hand sewed bag in the market, it is only necessary to give them a trial to prove to the most prejudiced. Those who have tried in previous seasons refuse to use any other. One of the chief points of excellence in the Detrick bag, besides its great strength, is its uniformity of size. In lots of 500 they will not be found to vary any perceptible degree. By means of their fine hydraulic press, Messrs. Detrick & Co. are able to bale their bags so that they will endure the roughest kind of handling.

This firm have lately contracted with one farmers' association to furnish them with 450,000 wheat bags; with another for 200,000; and only a few days since received an order from a prominent Granger in Butte county for 10,000 wheat bags. One of their last year customers dropped in a few days since and ordered 15,000 wheat bags to be shipped to his ranch. Messrs. Detrick & Co. make a good article, sell at a fair price, and are agreeable men to deal with.

The farmers are finding this out, and hence the rapidly increasing demands upon the capacity of their manufactory.

CARD.

IMMIGRANT BUREAU,
123 CALIFORNIA STREET,
SAN FRANCISCO, CAL.

For the purpose of directing immigrants, this Bureau desires information of all irrigating ditches in process of construction.

We can, with safety, send immigrants to neighborhoods where land can be irrigated. Please state definitely where such ditch is taken out from the river or stream, and the land through which it passes or will pass, and, if possible, send also a description, by section, of the land proposed to be brought under the influence of the water.

Such information, if given to the Bureau in detail, will be used in directing immigrants to the lands, and will tend to settle the country so designated.

If you have or can procure a map of the exact location of the ditch it will be of great service.

THE PACIFIC RURAL PRESS has a larger Circulation than any other Pacific Coast Weekly, independent of a daily issue.

[COMMUNICATED.]

THE AVERILL CHEMICAL PAINT.

The popularity of the Averill Chemical Paint is rapidly on the increase. Some time ago the California Chemical Paint Company, who are the sole manufacturers of the Averill paint on this coast, found the premises occupied by them on Townsend street totally inadequate to meet the demands of their business, so that they secured possession of the fine store, No. 117 Pine street, and made it their headquarters for the sale of paints and transaction of business, using their old depot wholly for manufacturing purposes. We have had occasion in a previous issue to speak of the excellencies of their paint, and a more thorough acquaintance with it strengthens our first impressions. It is composed of the very best materials, compounded on scientific principles, and the result is a paint which cannot be excelled, and we doubt if it can be equalled.

It possesses elasticity, is waterproof, dries quickly—a great desideratum in this climate where flying dust is so frequent—has a glossy finish and will outlast any ordinary paint. One point which recommends it especially to the farmer or any one having occasion to apply it, is that this paint is ready mixed for use. No stirring or fussing, or turning your wood shed into a laboratory. All you have to do with the Averill paint is to open the can, dip in your brush and paint away.

It is sold in one-fourth, one-half, one, two, and five gallon packages at prices, which make it cheaper to paint your house or barn than leave it in the rough state.

THE STAR.

The enterprising firm of George T. Hanly & Co., No. 922 Market street, are publishing a bright little sheet under the above title. The Star is a fixed light in our journalistic world, and by its effulgence directs attention to the facilities enjoyed by Messrs. Hanly & Co., for supplying the people with the choicest teas and coffees at the most popular prices. 1t

1776.



1875.

PROCLAMATION.

July 4th, 1875.

HEADQUARTERS GRAND MARSHAL, NO.

127 Montgomery street, San Francisco, California,

June 17th, 1875.

FELLOW CITIZENS: The near approach of the Ninety ninth Anniversary of the Declaration of American Independence is the signal to invoke good citizens to aid in perfecting the arrangements for a fitting celebration of the honored day.

Having been distinguished in the appointment of Grand Marshal by the unanimous choice of the Committee of Arrangements, I desire to extend to all military organizations, civic bodies, societies, and to all classes of citizens willing to organize for the purpose, a warm and hearty invitation to join in the memorial honors of the day.

Without partisan or sectional bias, looking only to the glorious national memories of the past, and to the prosperous future stretching far before, let us, dwellers by the Western sea send back a loyal greeting to our fellow-citizens nearer the birthplace of National Freedom.

The first century of American freedom draws to its glorious close. National trials and struggles for existence have not shattered the noble fabric of Republican self-government—cemented as has been by the blood of our Revolutionary forefathers. Looking backward to the early vicissitudes of our national existence, the American citizen sees in the high-souled patriotism of the Revolution the grandest model of duty and self-devotion. Let us fittingly honor the day, the men, the deed. The Independence of America! Its proclamation gave hope to suffering millions; its achievement has given happiness to a great nation in wealth and numbers far surpassing the most sanguine hopes of the manly heroes who fought for posterity, who died that we might be free. In peaceful enjoyment of the freedom so dearly purchased, let us as a grateful body of fellow citizens forget not our dividing line in the proud boast that we are Americans.

Special invitations will be extended to all accessible associations, and it is enjoined upon all classes of our citizens to organize under chosen officers and receive a proper place in line.

Announcement is made of the appointment of Major R. H. Savage as Chief Aid to the Grand Marshal.

Committees on Finance will be duly announced, and in their visits to our fellow-citizens, the generous response peculiar to California is invoked for the necessary support of such a celebration as will do our loyalty credit.

JOHN McCOMB, Grand Marshal.

SACRAMENTO, May 29th, 1875.

MESSRS. DEWEY & Co.—Gentlemen: Yours of the 27th inst. is received. The patent came duly to hand yesterday, by express. Please accept thanks for your promptness in obtaining the same. Very respectfully, DUNCAN BEAUMONT.

DEWEY & CO.

American & Foreign Patent Agents,

OFFICE, 224 SANSOME STREET, S. F.

PATENTS obtained promptly; Caveats filed expeditiously; Patent reissues taken out; Assignments made and recorded in legal form; Copies of Patents and Assignments procured; Examinations of Patents made here and at Washington; Examinations made of Assignments recorded in Washington; Examinations ordered and reported by Telegraph; Rejected cases taken up and Patents obtained; Interferences Prosecuted; Opinions rendered regarding the validity of Patents and Assignments; every legitimate branch of Patent Agency Business promptly and thoroughly conducted.

Our intimate knowledge of the various inventions of this coast, and long practice in patent business, enable us to abundantly satisfy our patrons; and our success and business are constantly increasing.

The shrewdest and most experienced inventors are found among our most steadfast friends and patrons, who fully appreciate our advantages in bringing valuable inventions to the notice of the public through the columns of our widely circulated, first-class journals—thereby facilitating their introduction, sale and popularity.

Foreign Patents.

In addition to American Patents, we secure with the assistance of co-operative agents, claims in all foreign countries which grant Patents, including Great Britain, France, Belgium, Prussia, Austria, Victoria, Peru, Russia, Spain, British India, Saxony, British Columbia, Canada, Norway, Sweden, Mexico, Victoria, Brazil, Bavaria, Holland, Denmark, Italy, Portugal, Cuba, Roman States, Wurtemberg, New Zealand, New South Wales, Queensland, Tasmania, Brazil, New Grenada, Chile, Argentine Republic, AND EVERY COUNTRY IN THE WORLD where Patents are obtainable.

No models are required in European countries, but the drawings and specifications should be prepared with thoroughness, by able persons who are familiar with the requirements and changes of foreign patent laws—agents who are reliable and permanently established.

Our schedule prices for obtaining foreign patents, in all cases, will always be as low, and in some instances lower, than those of any other responsible agency.

We can and do get foreign patents for inventors in the Pacific States from two to six months (according to the location of the country) sooner than any other agents.

Home Counsel.

Our long experience in obtaining patents for inventors on this Coast has familiarized us with the character of most of the inventions already patented; hence we are frequently able to save our patrons the cost of a fruitless application by pointing them to the same thing already covered by a patent. We are always free to advise applicants of any knowledge we have of previous applications which will interfere with their obtaining a patent.

We invite the acquaintance of all parties connected with inventions and patent right business, believing that the mutual conference of legitimate business and professional men is mutual gain. Parties in doubt in regard to their rights as assignees of patents, or purchasers of patented articles, can often receive advice of importance to them from a short call at our office.

Remittances of money, made by individual inventors to the Government, sometimes miscarry, and it has repeatedly happened that applicants have not only lost their money but their inventions also, from this cause and consequent delay. We hold ourselves responsible for all fees entrusted to our agency.

The principal portion of the patent business of this coast has been done, and is still being done, through our agency. We are familiar with, and have full records, of all former cases, and can more directly judge of the value and patentability of inventions discovered here than any other agents.

Situated so remote from the seat of government, delays are even more dangerous to the inventors of the Pacific Coast than to applicants in the Eastern States. Valuable patents may be lost by the extra time consumed in transmitting specifications from Eastern agencies back to this coast for the signature of the inventor.

Confidential.

We take great pains to preserve secrecy in all confidential matters, and applicants for patents can rest assured that their communications and business transactions will be held strictly confidential by us. Circulars free.

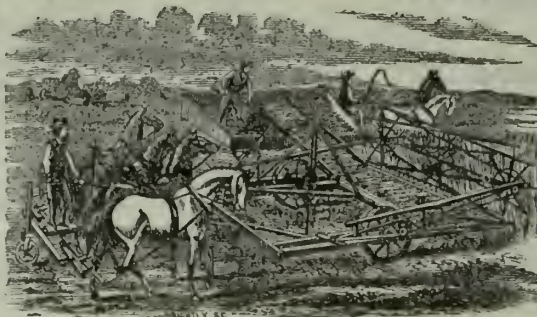
Engravings.

We have superior artists in our own office, and all facilities for producing fine and satisfactory illustrations of inventions and machinery, for newspaper, book, circular and other printed illustrations, and are always ready to assist patrons in bringing their valuable discoveries into practical and profitable use.

DEWEY & CO.,

United States and Foreign Patent Agents, publishers Mining and Scientific Press and the Pacific Rural Press, 224 Sansome St., S. F.

OUR IMPROVED HAINES' HEADER,



With Compound Leverage,

Doing away with all Ballast or Weights,

Either on the Lever or Frame; will be appreciated by Header Men. Also, a new device for driving the Knife, making the Header run one horse lighter than any header ever imported. The driving of the Reel is an improvement; in turning, the Reel runs just as fast as when driving straight ahead. The improvements will be found to meet the demands of California trade.

Our Excelsior Mowers are Improved for 1875.

Three Sizes—"Junior," "Medium" and "Senior."

J. I. CASE & CO.'S

SEPARATORS AND STEAM ENGINES

Are the Largest Works of the Kind in the World.

The Threshers and Engines are Made Expressly for this Trade.

Pitts' Down and Mounted Powers, "Foust's" Hay Loader, and Keller & Co's Sulky Revolving Hay Rake,

An age in advance of any other Rake. See these goods before buying; they can be found with us only. Our Stock of Implements is Complete.

Haines' Header Sickles, Excelsior Mowing Knives, Buckeye Mowing Knives, (Nos. 1 and 2), Sections, Rivets, Etc.

THRESHERS, ENGINES, POWERS, HEADERS, REAPERS, MOWERS, RAKES, HAY PRESSES, CORN PLANTERS, CORN CULTIVATORS, CORN SHELLERS, OILER AND WINE MILLS, HAY

CUTTERS, DEBRICK FORKS, BELTING, PUSH CARTS, PLOWS,

HARROWS, CULTIVATORS, GORHAM SEEDERS AND

CULTIVATORS COMBINED, FISH BROS.,

PACIFIC WAGONS, REGULATOR

WINDMILLS AND

PUMPS, ETC.

KELLER & CO., - - - 43, 45 & 47 J Street, Sacramento, Cal.

SEND FOR CIRCULAR.

PUMPS.

"PEOPLE'S PUMP."

THE FARMERS' FRIEND.

BEST IN USE FOR HOUSE AND STOCK PURPOSES. CAN

BE USED WITH HOSE FOR WASHING

WAGONS, WINDOWS, AND

WETTING GROUNDS.

SEND FOR CIRCULAR.

DUNHAM, CARRIGAN, & CO.,

Successors to

Conroy, O'Connor & Co.,

San Francisco



THE CALIFORNIA

STANDARD BURLAP SACK COMPANY

OF SAN FRANCISCO,

Now offer for sale their GRAIN BAGS, 22x36 and 20x36, sewed by Machinery with the best of Flax Twine, warranted not to rip in filling, the stitch being the same as the Dundee hand-sewed Sack. The sewing has been examined by good judges, and pronounced superior to any other.

SAMPLES SENT ON APPLICATION AT THE

Factory, No. 36 Clay Street.

A. J. GOVE, Superintendent.

For Sale in Quantities to Suit by

I. FRIEDLANDER,

Cor. California and Battery Sts.,

SAN FRANCISCO, CAL.

The attention of Wool cordially invited to the

Thoroughbred Stock Bred and Kept on the
MERINO RANCH,

Situated at Niles, Alameda County, Cal., only five minutes walk from the station, junction of San Jose and C. P. R. R. Parties desiring to visit our ranch can leave San Francisco at 3 P. M. and have an hour at the ranch, returning on Overland train at 6 P. M. Or, coming out in morning, can return to city at 11 A. M. The proprietors make the

THOROUGHbred SPANISH MERINO SHEEP A SPECIALTY,

Our flock are all Imported Sheep, and have no superiors in the United States. We always have on hand choice young RAMS and EWES, of all ages, for sale at Reasonable Prices, giving time, if required, to responsible parties. City Office—315 California Street, San Francisco.

SEVERANCE & PEET,

Importers and Breeders of Spanish Merino Sheep.

1077-cow

Railroads.



Chicago and Northwestern Railway.

Miles in Operation:

Illinois Division.....	486.5
Iowa ".....	432.8
Wisconsin ".....	585.4
Michigan ".....	168.7
Minnesota ".....	291.8
Dakota ".....	38.5
Total Miles.....	2,003.7

IN CONNECTION WITH THE

Central and Union Pacific Railroads,

—THIS IS THE—

PIONEER LINE

Between the Pacific Coast and the

EAST,

And was the first to connect with the great Pacific roads, and form the

OVERLAND ROUTE.

THIS LINE IS THE

Shortest Rail Line

—BETWEEN—

OMAHA and CHICAGO.

The track is of the

BEST STEEL RAIL,

And is well ballasted, and as free from dust as a road can be made; the bridges are strong and durable, and all the appointments are first-class in every respect.

The trains that run over this road are made up of elegant

New Pullman Palace Drawing Room and Sleeping Coaches,

Built Expressly for this Line,

Luxurious, well lighted and well ventilated Day Coaches, and pleasant lounging and smoking cars; all built by this company in their own shops. The cars are all equipped with the

Miller Safety Platform.

—AND—

PATENT BUFFERS AND COUPLINGS,

WESTINGHOUSE SAFETY AIR BRAKES,

And every other appliance that has been devised for the safety of passenger trains. All trains are run by telegraph, and are so regularly on time that one can safely set his watch by their arrivals or departures.

IN A WORD, THIS

Great California Line

Has the

BEST AND SMOOTHEST TRACK,

AND THE MOST

Elegant and Comfortable Equipment

Of any road in the West, and has no competitor in the country. It is eminently the favorite route with Californians traveling East, and is acknowledged by the traveling public to be the popular line for

Chicago, New York and all Eastern Cities.

Through tickets by this favorite route can be procured at all offices of the CENTRAL PACIFIC RAILROAD, and at the office of the

CHICAGO AND NORTHWESTERN RAILWAY,

131 Montgomery Street.

H. P. STANWOOD, Gen. Ag't for Calif'na.

M. HUGHITT,

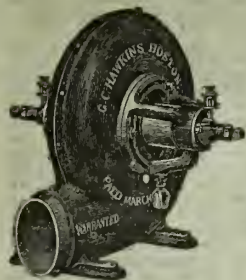
W. H. STENNETT,

General Sup't,
CHICAGO.Gen. Passenger Ag't,
CHICAGO.

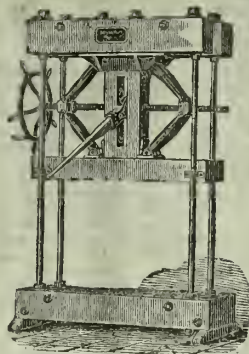
1073-lam-ly

A. L. FISH & CO.,

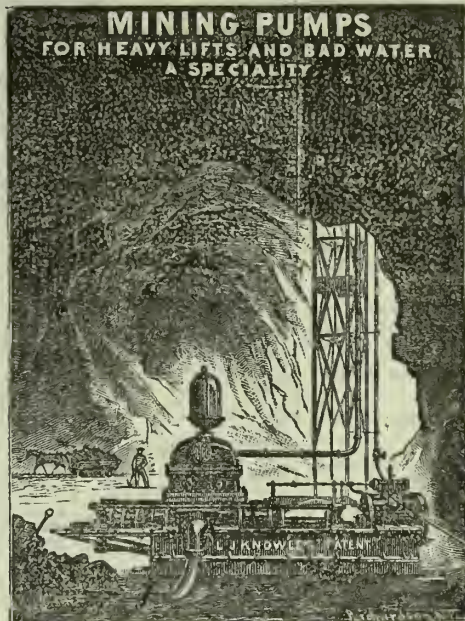
Nos. 9 and 11 FIRST STREET, - - - - - San Francisco, Cal.,
DEALERS IN ALL KINDS OF NEW AND SECOND-HAND MACHINERY.



Hawkins' Blowers and Exhaust Fans.

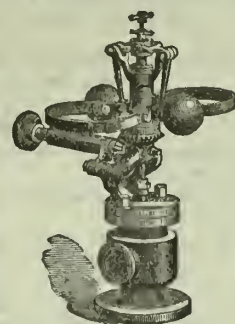


BOOMER PRESS;
For Wine, Cider, Lard Etc.

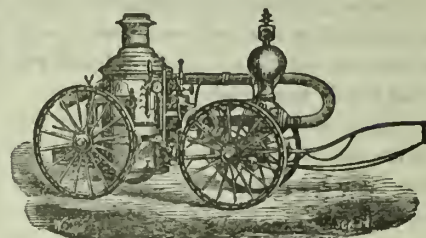


MINING PUMPS
FOR HEAVY LIFTS AND BAD WATER
A SPECIALTY

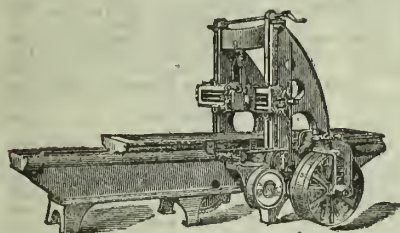
DOUBLE-ACTING PLUNGER,
1,000 Feet Single Lift Guaranteed.



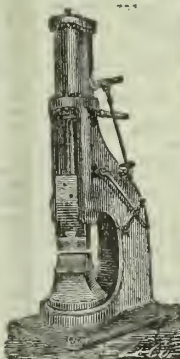
Waters' Patent Governor.



Clapp & Jones' Steam Fire Engine.

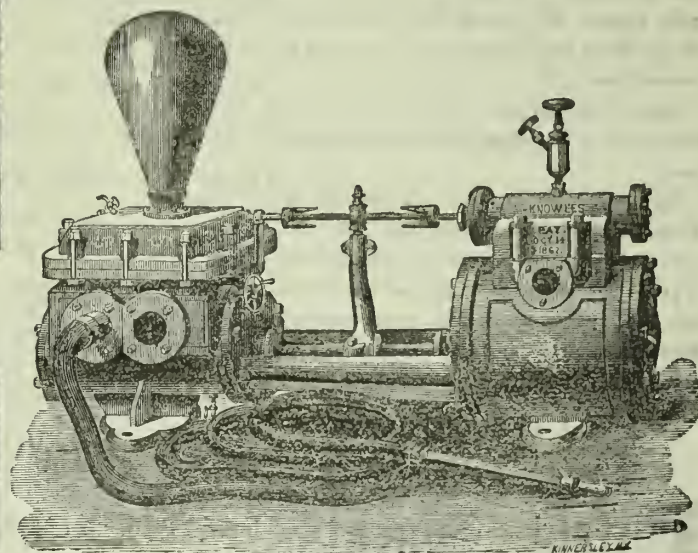
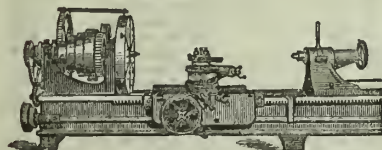


FERRIS & MILES'
Lathes, Planes, and Machinists' Tools.



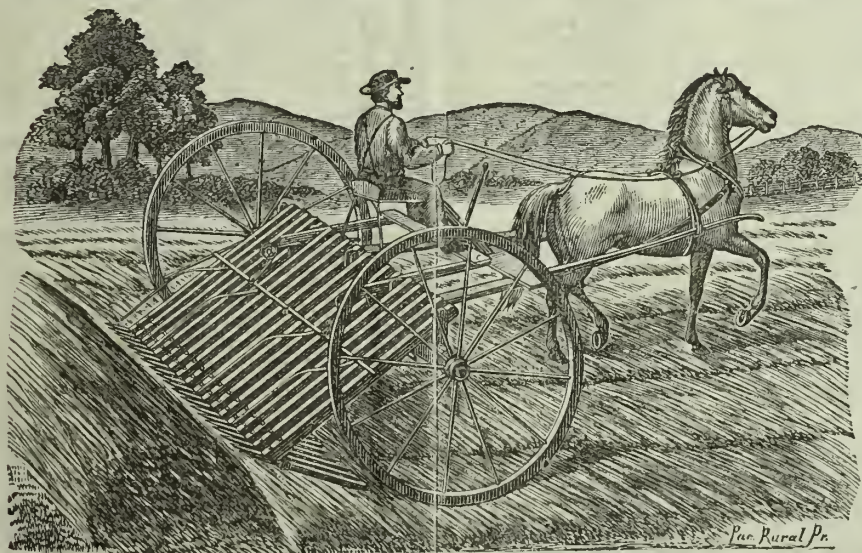
FERRIS & MILES'
Steam Hammers.

THESE ARE THE ONLY PUMPS
ARRANGED TO WORK NOISELESSLY AND
WITHOUT ANY SHOCK
OR JAR
ON PUMP OR PIPES
THESE FEATURES GUARANTEED



Knowles' Steam Pump; for all purposes where Pumping is required

Patent Extension Toothed Hay Rake.



Made of the Best Material, Runs Light and is Easily Operated.

Being so regulated by draft of horse as to nearly balance the rake, the operator steadying the lever and holding the teeth to the ground as required.

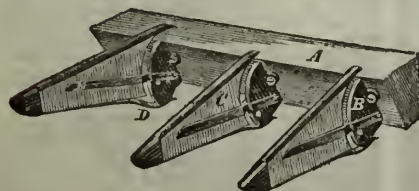
The Hay is Clean, free from Dirt and Dust.

And is not wadded or rolled, as from the Wire Toothed Rake.

The Teeth Rise and Fall Over Uneven Ground.

Gathering hay where other Rakes leave it behind, and are also double pointed, can be used any length, and turned point to point when dulled, or a tooth replaced without delay. Also manufacture Wire Rakes of the same pattern. Parties can have their choice of wire or wood.

BONNEY'S PATENT ADJUSTABLE GRAIN LIFTER, FOR HEADERS.



PRICE, \$40.

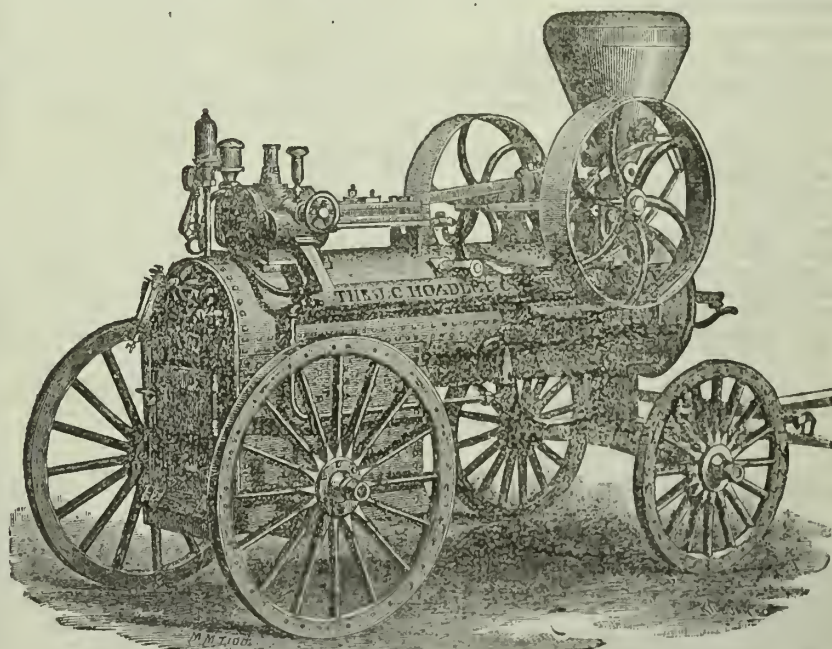
Manufactured by O. BONNEY.

No. 221 Mission Street, - - - - - SAN FRANCISCO.

All farmers who wish to save their grain without waste in cutting, should examine these. They can be run at any inclination to the ground, as seen at D, in cut. Are light, strong and durable, and can be adjusted in fifteen minutes, or removed in five when not required, by drawing bolt in malleable shank, B. Set of 8 for 10-foot header (in putting on which bore with 1/4-inch bit for lag screws), are the cheapest, and give the best satisfaction for any use. Parties can save additional cost of a set in one day's cutting, where grain is lodged or trinkles down.

Also, HEADER APRONS, GRAIN BELTS and FARMING IMPLEMENTS, Generally.

The Hoadley Regulating Cut-off THRESHING ENGINES.



The above cut represents the Hoadley New Style Threshing Engine, 15-horse power, with patent Cut-off Governor. We also have the same style and size, with HOADLEY'S NEW PATENT STRAW-BURNING FIRE BOX. This new Engine has been thoroughly tested, and we are prepared to warrant it to give satisfaction. OUR GUARANTEE GOES WITH EVERY ENGINE INTO THE FIELD. This new Engine is fitted out complete, with High Seat, Foot Board for Driver, California Roller Brake (not shown in engraving), Iron Hub, Patent Wheels, Forged Bent Axle, and all Mountings in Perfect Order.

THE Hoadley Straw-Burning Threshing Engine

Is no heavier than wood-burning engines of same power, and is unquestionably the Best Threshing Engine in the world. It is Lighter, Better Made, Safer, and will do More Work than any other engine of same size and price ever built. THIS FACT IS INDISPUTABLE.

Farmers and Threshers desiring to buy Straw-Burners for coming season, should secure their Engines Early, as the number is not large, and many are already engaged. All Engines will be tested in presence of customers, when required. Send for Circular and Prices. Address,

TREADWELL & CO., Sole Agents, San Francisco.

TRUCKEE, CAL., July 10, 1874.
Messrs. DEWEY & Co., Gentlemen: My patent is just received, and is entirely satisfactory. Permit me to tender you my sincerest thanks for the care and attention, the promptness and interest you have displayed in managing my affairs. Gratefully yours,
O. F. MCGALLIGAN

The PACIFIC RURAL PRESS is, for the Pacific Coast, the most valuable paper published in the Union. It is precisely adapted for this part of the world. As an exchange it is invaluable, giving a complete view of climate and crop all over the coast. The only fault about it is that the mailing clerk forgets us sometimes. Will he take a hint?—Southern Californian, February 18th.

To the Officers of Subordinate Granges.

Throughout the jurisdiction of the State Grange of California, we send each of you, post paid, an extra copy of the *RURAL PRESS*. This and future numbers will contain information of special importance to those holding such honorable positions in our noble Order. Please examine it fully and we think you will desire to preserve it, in whole or in part, for future use.

Those of you who receive duplicate copies, we trust will be kind and considerate enough to hand one copy to some Patron or friend who is not already a subscriber.

We have worked faithfully and consistently for the true cause of the farmer, before and since the organization of the Grange, and we earnestly ask your active assistance in increasing the circulation of the *RURAL* and greatly extending its broad field of usefulness.

You can do this by sending us your subscription promptly, by getting up a large club in your Grange, by sending the paper to your friends in the East or elsewhere, if you have no personal use for it.

Subscriptions, \$1 per annum. For clubs of five or more Grangers and other farmers, \$3 each.

The publication of such a journal as the *RURAL* on this coast is no easy task. We want your friendship and co-operation. We have need of your assistance to make improvements, maintain a good paper, and receive suitable reward for our labor. Do not delay your efforts in behalf of your own representative paper.

DEWEY & CO.,

American and Foreign

Patent Agents,

No. 224 Sansome St.
SAN FRANCISCO.

Patents Obtained Promptly.
Caveats Filed Expeditiously.
Patent Reissues Taken Out.
Patents Secured in Foreign Lands.
Assignments Made and Recorded in Legal Form.
Copies of Patents and Assignments Procured.
Examinations of Patents made here and at Washington.
Examinations made of Assignments Recorded in Washington.
Examinations Ordered and Reported by TELEGRAPH.
Interferences Prosecuted.
Opinions Rendered regarding the Validity of Patents and Assignments.
Rejected Cases taken up and Patents Obtained Every Legitimate Branch of Patent Agency Business promptly and thoroughly conducted.
SEND FOR CIRCULAR.

The Pacific Rural Press,

AN ILLUSTRATED
AGRICULTURAL HOME JOURNAL.

Among other Reasons for Subscribing are the Following:

Because it is a permanent, first-class, conscientious, able, and well conducted journal.
Because it is the largest and best agricultural weekly west of the Rocky Mountains.
That Patrons may be fully posted on the progress of the Order in this and other fields.
That more farmers' wives and children in their isolated homes may be cheered by its weekly visits, laden with its pleasing, yet moral reading, and sound instruction.
That a more extended interchange of views and opinions may be had among farmers, upon all the great questions touching their mutual interests and progress.
That the agricultural resources of the Pacific States may be more wisely, speedily and thoroughly developed by an open and free discussion in our columns.
That all the honest industries of our State may be advanced in connection with that of agriculture, our columns being ever open to the discussion of the merits of all progressive improvements.
That the *RURAL*, after having been read and pondered over by the home circle can be filed away for future useful reference, or forwarded to the old Eastern friends of the Atlantic border, in aid of an increasing immigration to our sunny clime.

PATRONS will please subscribe of their Secretary and aid in getting up or increasing the club in their Grange, and thereby receive the benefit of club rates. Send for free sample copies and further information. Secretaries, Lecturers and other Patrons are cordially invited to correspond for our columns, for the good of the Order and their local interests.

DEWEY & CO., Publishers.

San Francisco, January, 1875.

PATENTS & INVENTIONS.

A Weekly List of U. S. Patents Issued to Pacific Coast Inventors.

[FROM OFFICIAL REPORTS FOR THE MINING AND SCIENTIFIC PRESS, DEWEY & CO., PUBLISHERS AND U. S. AND FOREIGN PATENT AGENTS.]

By Special Dispatch, Dated Washington, D. C., June 22d, 1875.

FOR WEEK ENDING JUNE 8TH, 1875.*

DYNAMIC WRENCH.—Sebastian Plymale, Portland, Oregon.

FIRE ESCAPE.—Franklin P. Berney, San Quentin, Cal.

MANUFACTURE OF NITRO-SULPHURIC ACID FOR MANUFACTURING NITRO-GLYCERINE.—Prudencio Castellanos, S. F., Cal.

RECOVERING ACIDS FROM RESIDUUM OF NITRO-GLYCERINE MANUFACTURE.—Prudencio Castellanos, S. F., Cal.

APPARATUS FOR RECOVERING ACIDS FROM THE RESIDUUM OF NITRO-GLYCERINE MANUFACTURE.—Prudencio Castellanos, S. F., Cal.

EXPLOSIVE COMPOUNDS.—Prudencio Castellanos, S. F., Cal.

EXPLOSIVE COMPOUNDS.—Prudencio Castellanos, S. F., Cal.

LOCK MORTISING MACHINE.—Charles J. Hardee, S. F., Cal.

HYDRAULIC ELEVATOR.—Philip Honkle, S. F., Cal.

WAGON BRAKE.—John C. Trullinger, Portland, Oregon.

TRADE-MARK.

FOR PREPARED SALMON.—James Quinn, Portland, Oregon.

*The patents are not ready for delivery by the Patent Office until some 14 days after the date of issue. Note.—Copies of U. S. and Foreign Patents furnished by DEWEY & CO. in the shortest time possible (by telegraph or otherwise) at the lowest rates. All patent business for Pacific coast inventors transacted with perfect security and in the shortest possible time.

INDEX TO VOLUME IX

—OF THE—

PACIFIC RURAL PRESS,

From January to July, 1875.

PAGE.	PAGE.
Acacia Gold.....149	Boys Wanted.....161
Acidity.....391	Boys, Letters to.....326, 183, 167.
Aged Beauties.....354	Boys and Girls.....167
Agricultural Works.....41	Boys, Place for.....177
Agricultural Principles.....25	Boys, Talk With.....327
Agricultural Imp.....104	Boys, Wrongs of.....358
*Agricultural Impie.....209	Boys.....391
*Alfalfa Parasite.....33, 194	Brail, The.....271
Alfalfa Appreciated.....120	Bread Daughter.....238
Alfalfa, Cheap Land for.....145	Bread Stuff Prospects.....83
Alfalfa in Orchards.....162	Break From Saw Dust.....119
Alfalfa for Hog Feed.....184	*Brown Lezhorns.....241
Alfalfa Outside of Cal.....216	Bullion of '74.....74
Alfalfa.....308, 311, 386	Bundles.....70
Alameda County.....218	Butter Making.....195
American History.....266	Butter for '75.....184
American Wheat Field.....318	Butter, Premium.....2
Austhyra.....435	*By and By.....144
American Tax.....426	
Among the Hop-growers.....419	*California Condor.....65
Anti-Monopoly Assn.....426	California Products.....104
Anaheim.....194	California Tobacco.....104
Angora Association.....323	*Cal. River Scenery.....113
*An Incident.....327	Cal. Wild Flowers.....151
Anti-Monopoly Assn.....353	California Woods.....144
Appearances.....54	California R. R. Items.....210
Appetite—Abuse of.....82	California Central.....210
Apples in Tuolumne Co.....114	California R. R. Items.....210
Apologies not Needed.....422	California Fox.....225
Art—Beautiful.....118	California Statistics.....225
Art of Thinking.....285	Cal. Wool Products.....267
*Autumn Ballad.....285	California, New Surplus.....272
*Autumn of the World.....118	California, Southern.....357
Australian Lemons.....417	Capay Valley.....357
A Wife's Love.....71	*Carolina Parrot.....57
A Word for Yellow Jack.....419	Carnation, Cultivation.....67
Axone.....418	Castor Beans.....34, 234, 162
	Cattle Breeders.....240
	Cattle, Durham.....283
	Cattlepillar Scourge.....288
	Carragee Wheel.....426
	Care for Daughters.....422
	Cement Walls.....99
	*Centennial Building.....24
	Chaletony.....79
	Charge it.....102
	*Cherry, Gr. Bigsrea.....145
	Cherry Vale.....370
	Chaerful Fece.....254
	Chickens, Feed for.....18
	Chickens, Fattening.....288
	Children.....134
	Children and Dogs.....182
	Children, Useful.....182
	Children, Polite.....310
	Children, Maana.....390
	*Chinese Soldier.....313
	Choosing a Mate.....422
	Clothing Water.....369
	Coal, Age of.....219
	Coal, Philosophy of.....98
	Coal, Use of.....256
	Coaling in Cal.....359, 267
	Columbia.....43
	*Colorado Scenery.....321, 393
	Coloring Process.....251
	*Colorado Scenery.....417
	Cold Steam Motor.....426
	Co-operation.....195, 250
	Complements.....308
	Confederate Homes.....70
	Confidential Advice.....71
	Consumption.....71

*Illustrated. †Poetry.

PAGE.	PAGE.
Contre Costa.....194	Grange, National.....52, 68
Concrete Houses.....273	100, 117, 132, 148, 164
Corn, Cure for.....119	180, 196, 263
Corn, Broom.....56, 40	Grange Wedding.....69
Corn, Popping.....39	Grange, La Honda.....63
Corvella.....82	Grange, Temescal.....63
Cotton.....231, 26	Grange, Lower Lake.....63
Courtesy.....134	Grange Business Assn.....68, 100, 133, 165, 180, 236, 281
Cow, Abortion in.....2	Grange Correspond'te.....68
Cow Horn.....3	Grange, Two Rock.....85
Cow Theory.....35	Grange Council.....85
Cow Milkers.....60	Grange Chamber of Commerce.....85
Cow (adders).....90	Grange, Southern Adrs.....133
*Cow Spaying.....355	Grange, Eden.....100
Cranberries.....173, 255	Grange, Millville.....100
Crope, Two.....97	Grange, Wellington.....101
Crops.....288	Grange in W. T.....101
	*Grange Song.....164
	Grange on Schools.....165
	Grange Constitution.....196
	Grange Address.....212
	Grange in Nevada.....212
	Grange, Home Ageln.....212
	Grange and Agents.....213
	Grange, Castrovilla.....216
	Grange Southern Wing.....252
	Grange Harvest Feast.....252
	Grange and the Emi.....268
	Grange Executive Com.....308
	Grange, Florin.....309
	Grange Work.....324
	Grange, Cold Spring.....324
	Grange, Amador.....324
	Grange Ceremonial.....356
	Grange, Political Duties.....356
	Grange, Bernardo.....356
	Grange, Salda.....356
	Grange, Panams.....356
	Grange Picnic.....372
	Grange Contest.....372
	Grange, Fresno Co.....372
	Grange, Florin.....373
	Grange, Outside the Gate.....388
	Grange, Sonora.....389
	Grange Co-operation.....389
	Grange, Rio Vista.....389
	Grange, History of the Order.....404
	Grange, Caleveras Valley.....404
	Grange, Co-operative Stores.....404
	Granges, What Will They Do.....404
	Grange, Paradise.....405
	Grange, Linn's Valley.....405
	Grange-growers' Convention.....491
	Grange Drafting.....423
	Grange Culture.....42, 115
	Grange, Curative Properties.....56
	Grange Growing.....82
	Grange, Intoxicating.....306
	Graps, Scuppernon.....103, 153, 201, 283
	Green Boughs.....87
	Guns Without Caps.....42
	Gypsum.....256
	H
	Hair Worm.....146, 214
	*Harrow, Donahue's.....33
	Harvest, the Yield.....249
	*Hay Loader.....249
	*Hay Press, Price's.....281
	*Hay Press, Telford's.....313
	Hay Crops.....314
	Headburg.....98
	Health.....119
	Heating Dwellings.....235
	Heretic Treatment.....471
	High Swing.....291
	*How Will it be?.....421
	Homestead Plan.....199
	Home Hunters.....161
	Homes For All.....291
	Home, a Perfect.....291
	Home Industries.....328
	Home Grown Sweets.....392
	Hope, Freight on.....145
	Hope and Commerce.....309
	Horse, Clyde.....2
	Horse, Burcon.....19
	Horses, Wintering.....58
	Horses, Long Legged.....114
	Horses, Pioneer.....152
	Horses Fleesh as Food.....238
	*Horse, Carb in.....307
	Horse, Rheumatism.....371
	Household Hints.....375
	How to Live.....151
	Humboldt Co.....211
	Human Beard.....226
	I
	Ice Crop.....120
	111 God Shall, etc.....254
	Immigration Colonies.....412
	Immigration, Local Advantages.....427
	*Improved Window Sash.....427
	Immigration.....269, 272, 300, 305, 306, 321, 323, 377, 387
	Immigrant Bureau.....434
	Immigrant Question.....434
	In the Nest.....270
	India Minira.....214
	In China.....354
	Industry Honored.....58
	Insurance Assn.....58
	In Those Days.....270
	Inklings from the Country.....420
	Insurance Co. Farmers'.....435, 404
	Interest, Amount.....405
	Interruption of Travel.....288
	Irrigation.....131, 147, 232, 289, 376, 380, 386
	Iron, Black Leading.....42
	Iron, Antiquity.....83
	Japanese Maps.....328
	Japanese and Americans.....409
	Jersey, Demand for.....1
	Jerking the Reins.....198
	Jewish Ladies.....238
	Joke in a Palace.....157
	Jute.....8, 162, 289
	K
	Kansas Sufferers.....145
	197, 284, 308
	Kansas Campaign.....214
	*Killing Bird.....129
	*Killing Time.....359
	L
	Labor in England.....3
	Lard, Short Weight.....3
	Lake Co.....354
	Lamp Explosions.....39
	Land Clearing.....81
	Land Questions.....409
	Leaves.....104
	Learning Trades.....201

PAGE.	PAGE.
*Lift a Little.....102	Sculptor, Boy.....7
Lime Bean.....412	Seedsmen, Hints to.....44
*Little Feet.....6	Servants.....199
Little Mary.....103	Settlers, Min'l Lands.....3
Little Bessie.....439	Settlers, Advice to.....2
Little Bopeep.....359	Shasta Co.....211
Little Teacher.....407	Ship, Blind Staggers.....300
Live Fences.....370	Sheep Interest.....99
Lockjaw.....183	Sheep Breeders.....178
Local Controversy.....308	Sheep Growing.....283
Los Angeles.....194, 254	Sheep, Merino.....90, 207
Loss of Appetite.....410	Ship Building.....419
Los Nietos.....146, 210, 282	Sheep Scab.....90
	Sheep Raising.....359, 355, 371, 387, 403
	Silk Culture.....403, 17, 41, 376
	Silviculture.....50, 83
	Sleeplessness.....199
	Snail Eating.....271
	Spilled Dog.....273
	Sponges.....179
	Starch.....216
	*Start in Life.....423
	Steamer.....67
	Stock, Imported.....97
	Stock, Short Horn.....41
	Stock, Fineness of Bone.....58
	*Stomach Washing.....7
	Storm at Grangeville.....418
	Storm at Rio Vista.....72
	Storm, the Late.....178
	Strawberries.....313, 376
	Stomach in the Field.....200
	Stupid.....281
	Sub-Suggestion.....265
	Suggestion.....18
	Sun Worship.....407
	Swine.....35, 36, 282
	*Sweepstake Header.....353
	T
	Taking Cold.....327
	Talking, Etc.....6
	Tangerine Oregon.....130
	Tanning Plant.....130
	Tariff, The.....98
	*Tea Cultivation.....385, 409
	*Tahiti.....425
	Tarantula.....424
	Tea Plant.....81
	Telegraphic.....6, 179, 256
	Telemeter.....10
	Text Book.....272
	Text Wager.....359
	*The Golden Side.....406
	*The Singer.....86
	The First Thousand.....134
	The Unseen Island.....244
	The Stamp.....270
	The Little Grocer.....310
	The Coming Man.....310
	*The Good Imp.....326
	Thermometer.....345
	This, That, etc.....254
	Thought, Gift of.....86
	*Thresher, Buffalo.....401
	*Thresher, Sweepstake.....369
	Throat, Human.....31
	Tide, Draining.....152
	Timber, Shrinkage.....307
	Tin Vessels.....119
	Tin Scrapers.....163
	*Tired Mothers.....163
	Tire Forging.....163
	Trade Movement.....20
	Transit of Venus.....10
	Trep, Vermion.....307
	Trea Growth.....26
	Tree Planting.....50, 179
	Trees of America.....64
	Trees, Forest.....57
	Trees, Clean.....168
	Tricks.....412
	Trial Trip.....352
	True Manhood.....70
	Tule.....64, 55, 269
	Tuolumne Re-nation.....41
	Tuolumne Co.....50
	Turkey, Hot Cook.....70
	U
	Ugly Sam.....38
	Unhealthy Food.....407
	Universe, Unity of.....67
	University.....104, 129, 372
	University Commencement.....412
	Uplands.....2
	V
	Vegetable Fiber.....305
	Vegetable Waste.....366
	Vehicles.....325
	Visalia.....66
	*Voice of the Grange.....374
	W
	Walnut Creek.....66
	Walnut, Black.....145
	Wanted, Storekeeper.....357
	*Water Wheel.....137
	Water, Organic Matter.....105
	Water, Contaminated.....391
	Waste Avoided.....360
	Weather and Money.....408
	Welcome Return.....152
	Westminster.....306
	Wheat Market, Ten Years.....40
	Wheat, Salt on.....42
	Wheat Shipments in 1874.....66
	W



